

No. _____

In the
Supreme Court of the United States

WHITSERVE LLC,
Petitioner,

v.

DONUTS INC., NAME.COM, INC.,
Respondents.

WHITSERVE LLC,
Petitioner,

v.

ENOM, LLC,
Respondent.

ON PETITION FOR WRIT OF CERTIORARI TO
THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

APPENDIX TO
PETITION FOR WRIT OF CERTIORARI

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NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

WHITSERVE LLC,
Plaintiff-Appellant

v.

DONUTS INC., NAME.COM, INC.,
Defendants-Appellees

2019-2240

Appeal from the United States District Court for the
District of Delaware in No. 1:18-cv-00193-CFC, United
States District Judge Colm F. Connolly.

WHITSERVE LLC,
Plaintiff-Appellant

v.

ENOM, LLC,
Defendant-Appellee

2019-2241

Appeal from the United States District Court for the District of Delaware in No. 1:18-cv-00194-CFC, United States District Judge Colm F. Connolly.

Decided: April 10, 2020

MICHAEL JOSEPH KOSMA, Whitmyer IP Group LLC, Stamford, CT, for plaintiff-appellant. Also represented by STEPHEN BALL.

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Before PROST, *Chief Judge*, O'MALLEY and TARANTO,
Circuit Judges.

TARANTO, *Circuit Judge*.

WhitServe LLC owns U.S. Patent Nos. 5,895,468 and 6,182,078, both of which describe and claim systems and methods by which providers of professional services, using the Internet, send reminders to clients and obtain responses from them. We addressed these patents in *WhitServe LLC v. Computer Packages, Inc.*, 694 F.3d 10 (Fed. Cir. 2012) (*WhitServe I*), where we resolved questions of infringement and anticipation, among other issues. This case involves an issue not previously presented: the eligibility of the '468 and '078 patent claims under 35 U.S.C. § 101. The district court held all claims ineligible. *WhitServe LLC v. Donuts Inc.*, 390 F. Supp. 3d 571, 574–75 (D. Del. 2019). We affirm.

I

WhitServe's '468 and '078 patents, in relevant part, share a specification. The patents describe software that runs on a professional service provider's computer to help professionals, *e.g.*, attorneys, perform functions for clients that "involve a series of deadlines" but cannot be performed without client authorization or input. '468 patent, col. 1, lines 11–16; *id.*, col. 2, lines 39–45. The computer, running the software, automatically queries a database of client deadlines and both sends due-date reminders to clients and obtains client responses over the Internet. *Id.*, col. 1, lines 6–9; *id.*, col. 2, lines 39–45. As a client deadline approaches, the system sends a notice to the client—via the Internet—that includes a client response form; the client provides a response via the form; the system returns the form to the professional service provider; and either the system or the professional takes an action based on the client's response. *Id.*, col. 3, lines 17–67; *see also id.*, col. 5, lines 8–56 (describing an alternative embodiment using a webpage to collect and route client responses).

In February 2018, WhitServe filed two complaints—one against Donuts Inc. and Name.com, Inc., and another against Enom, LLC (together, Donuts)—in the United States District Court for the District of Delaware, alleging infringement of selected claims of the two patents. Donuts moved to dismiss the complaints under Federal Rule of Civil Procedure 12(b)(6), arguing that all the claims of the patents are invalid because their subject matter is ineligible for patenting under § 101. In ruling on the motion to dismiss, the district court treated claim 1 of the '468 patent as representative of the claims at issue in the cases. J.A. 6–7. WhitServe does not now challenge that determination.

Claim 1 of the '468 patent recites:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

'468 patent, col. 6, line 56, through col. 7, line 8.

The district court concluded that the claims are directed to “the abstract idea of preparing, sending, and receiving responses to due-date reminders for clients of professional-service [providers].” *WhitServe*, 390 F. Supp. 3d at 577. The district court then determined that the claim elements, either individually or as an ordered

combination, recite “nothing more than generic computer components employed in a customary manner,” and therefore do not transform the abstract idea into patent-eligible subject matter. *Id.* at 579–80 (quotation marks omitted). On that basis, the district court granted Donuts’ motion to dismiss the complaints with prejudice and entered final judgments in Donuts’ favor.

WhitServe timely appealed to this court. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

Subject-matter eligibility under § 101 is a question of law, resolved based on underlying facts. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018) (*Aatrix I*). “Like other legal questions based on underlying facts, this question may be, and frequently has been, resolved on a Rule 12(b)(6) . . . motion where the undisputed facts, considered under the standards required by that Rule, require a holding of ineligibility under the substantive standards of law.” *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018); *see ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 765 (Fed. Cir. 2019); *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1356, 1358–59 (Fed. Cir. 2018) (*Aatrix II*). We review the Rule 12(b)(6) dismissal *de novo*. *Ancora Techs., Inc. v. HTC America, Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018); *Newark Cab Ass’n v. City of Newark*, 901 F.3d 146, 151 (3d Cir. 2018).

Section 101 defines patent-eligible subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. But there are several “implicit exception[s]” to this statutory grant—laws of nature, natural phenomena, and abstract ideas are not patent-eligible subject matter. *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012). The Supreme Court in *Alice Corp. v. CLS Bank International* set forth a two-step

analysis to determine whether patent claims fall outside § 101. 573 U.S. 208, 217–18 (2014). Under that framework, we ask (1) whether the claim, as a whole, is “directed to” patent-ineligible subject matter and (2) if so, whether the elements of the claim, considered individually or as an ordered combination, “transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 78).

A

Proceeding within the two-step framework of *Alice*, we examine the patent’s “‘claimed advance’ to determine whether the claims are directed to an abstract idea.” *Finjan, Inc. v. Blue Coat Systems, Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018). When the claims involve “software innovations, this inquiry often turns on whether the claims focus on ‘the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool.’” *Id.* (quoting *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016)); *see also Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364 (Fed. Cir. 2020) (“[I]t is not enough, however, to merely improve a fundamental practice or abstract process by invoking a computer merely as a tool.”); *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1285–86 (Fed. Cir. 2018); *CoreWireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356, 1361–62 (Fed. Cir. 2018). Under this framework, we conclude, WhitServe’s claims are directed to an abstract idea.

Claim 1 of the ’468 patent describes querying a database of client reminders having associated date information; sending, via the Internet, reminders to clients with approaching deadlines; including within those reminders a form for clients to give approval or further instructions to the professional regarding the approaching deadline; and receiving back, via the Internet, a client response. ’468

patent, col. 6, line 56, through col. 7, line 8. The focus is on the idea of keeping track of deadlines for clients and carrying out two-way communications with clients relevant to meeting those deadlines, using computers and networks to do so. The '468 patent specification confirms this focus, stating that the objects of the invention are to “improve[] the speed, efficiency, and reliability of performing services for clients” and to provide a system that “automatically prepares reminders and solicits replies for client due dates.” *Id.*, col. 2, lines 16–22.

The focus of the claims is simply to use computers and a familiar network as a tool to perform a fundamental economic practice involving simple information exchange. Carrying out fundamental economic practices involving simple information exchange is an abstract idea. *See, e.g., BSG*, 899 F.3d at 1286; *SAP America*, 898 F.3d at 1167–68; *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1261–62 (Fed. Cir. 2016). And use of standard computers and networks to carry out those functions—more speedily, more efficiently, more reliably—does not make the claims any less directed to that abstract idea. *See Alice*, 573 U.S. at 222–25; *Customedia*, 951 F.3d at 1364; *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1092–93 (Fed. Cir. 2019); *SAP America*, 898 F.3d at 1167; *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1314 (Fed. Cir. 2016); *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353, 1355 (Fed. Cir. 2016); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367, 1370 (Fed. Cir. 2015); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014).

Nothing in WhitServe’s claims transforms the abstract idea that is the focus of its claims into a patent-eligible invention. WhitServe describes the inventive concept as improving docketing systems through the use of databases, specific types of reminders, and software to generate client reminders and receive client responses. Appellant’s Br. 30–31. But the specification itself states that “send[ing] a

client a reminder, obtain[ing] authorization or possibly executed documents from the client, and then tak[ing] some action based on the client's response" were "oftentimes" practiced by professionals. '468 patent, col. 1, lines 12–16. It adds that these steps were "typically" aided by the use of a database of client due dates. *Id.*, col. 1, lines 30–35. And nothing in the claims points to any improvement in off-the-shelf computers and existing communication networks.

WhitServe's claims require only generic components—"a computer," "a database," "software executing on said computer," and "a communication link between said computer and the Internet"—to perform their routine and conventional functions. *Id.*, col. 6, line 56, through col. 7, line 8. The specification describes the network-connected computer only as a "professional computer" capable of executing software. *E.g., id.*, col. 3, line 18. The specification describes communication between the professional and the client simply as occurring "through an Internet communication link," an existing technology whose mechanisms of operation WhitServe's patents do not propose to alter. *Id.*, col. 4, line 35. The specification likewise makes clear that docketing systems commonly employed a database and software that "notifie[d] the professional of each upcoming deadline a preset time period before the deadline by . . . networked computer." *Id.*, col. 1, lines 30–35. These generic computer and communications components provide no eligibility-transformative inventive concept. And the specific ordered combination of these generic components is likewise insufficient, as it does nothing more than "spell out what it means to apply [the abstract idea] on a computer." *Capital One*, 792 F.3d at 1370 (quotation marks omitted).

WhitServe argues that the district court failed to consider the perspective of the relevant artisan in making its patent-ineligibility determination. We disagree. The district court noted what the patent itself teaches about the routine use of docketing systems by professionals and the

conventionality of the various claimed components, including the Internet and web pages, at the time of invention. *WhitServe*, 390 F. Supp. 3d at 574, 577–79; *see* ’468 patent, col. 1, lines 12–16, 29–35; *id.*, col. 5, lines 22–26. The description of “already-available computers that are not themselves plausibly asserted to be an advance . . . amounts to a recitation of what is ‘well-understood, routine, [and] conventional.’” *SAP*, 898 F.3d at 1170 (quoting *Mayo*, 566 U.S. at 73). In this case, therefore, the district court did not have to look beyond the specification to make its patent-eligibility determination.

WhitServe also points to alleged licensing of its patents as evidence of an inventive concept. We have held, however, that “[c]ommercial success is not necessarily a proxy for an improvement in a technology nor does it necessarily indicate that claims were drawn to patent eligible subject matter.” *Versata Dev. Grp., Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015). After all, ineligible ideas can be valuable. *See Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278–79 (Fed. Cir. 2012). That the market found WhitServe’s products or ideas desirable—and took licenses—does not override the now-straightforward conclusion that the patents claim no improvement in computer functionality or other eligible matter.¹

¹ WhitServe argues that our analysis should account for agency and judicial rulings that upheld its patents against various challenges. But patent eligibility under § 101 was not at issue in any of those earlier rulings. Thus, none either addressed or decided whether the claims at issue are eligible under the Supreme Court’s *Alice* framework. Indeed, though the question was not presented to this court in *Whitserve I*, Judge Mayer suggested in dissent that the court should address it *sua sponte* and find the claims ineligible. 694 F.3d at 40–42 (Mayer, J., dissenting).

B

WhitServe argues that the district court should not have resolved this case at the pleading stage. But we have repeatedly made clear that “patent eligibility can be determined at the Rule 12(b)(6) stage” if there are no plausible factual allegations to impede such a resolution. *Aatrix I*, 882 F.3d at 1125; *see, e.g., SAP America*, 898 F.3d at 1166. Factual questions relevant to the § 101 analysis, “[l]ike other legal questions based on underlying facts,” do not prevent a judgment on the pleadings when the pleadings and exhibits attached thereto show that there are no plausible factual disputes. *SAP America*, 898 F.3d at 1166. In the § 101 context, “the specification alone” may suffice to resolve the patent-eligibility inquiry. *Aatrix II*, 890 F.3d at 1356; *see SAP America*, 898 F.3d at 1166. That is the case here, for the reasons we have already explained.

WhitServe next argues that its patent claims do not fall outside the text of § 101 or come within the statement in *Le Roy v. Tatham* that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented.” 55 U.S. 156, 175 (1852). But as discussed above, later Supreme Court decisions and our applications of those decisions have held that ineligible subject matter also includes fundamental economic practices involving simple information exchange implemented on off-the-shelf computers and networks. Those precedents control.

WhitServe finally argues that its due process rights were violated when the district court denied its request for an oral argument on the motion to dismiss. We disagree. The right to be heard in the context of a motion to dismiss is satisfied where the plaintiff receives an “opportunity to present legal arguments either orally, in writing, or both at the District Court’s discretion.” *Dougherty v. Harper’s Magazine Co.*, 537 F.2d 758, 761 (3d Cir. 1976). Here, WhitServe had a full opportunity to oppose Donuts’ 12(b)(6) motion in writing. WhitServe has not pointed to

any limitation that prevented it from giving full substantive expression to its argument. The district court acted well within its discretion in not holding an oral argument on the motion to dismiss.

III

For the forgoing reasons, we affirm the district court's judgment.

AFFIRMED

NOTE: This order is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

WHITSERVE, LLC,
Plaintiff-Appellant

v.

DONUTS INC., NAME.COM, INC.,
Defendants-Appellees

2019-2240

Appeal from the United States District Court for the
District of Delaware in No. 1:18-cv-00193-CFC, Judge
Colm F. Connolly.

WHITSERVE, LLC,
Plaintiff-Appellant

v.

ENOM, LLC,
Defendant-Appellee

2019-2241

Appeal from the United States District Court for the District of Delaware in No. 1:18-cv-00194-CFC, Judge Colm F. Connolly.

O R D E R

The above-captioned appeals appear to be related.

We consolidate the cases, and thus one set of briefs should be filed for the two appeals. We retain the individual captions.

Accordingly,

IT IS ORDERED THAT:

(1) The appeals are consolidated. Each of the briefs shall include the full captions of both appeals.

(2) Appellant's brief is due no later than 40 days from the date of filing of this order.

FOR THE COURT

August 13, 2019
Date

/s/ Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court

s35

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

_____)	
WHITSERVE LLC,)	
)	
<i>Plaintiff,</i>)	
)	
v.)	Civ. No. 18-193-CFC
)	
DONUTS INC. and NAME.COM,)	
INC.,)	
)	
<i>Defendants.</i>)	
_____)	
WHITSERVE LLC,)	
)	
<i>Plaintiff,</i>)	
)	
v.)	Civ. No. 18-194-CFC
)	
ENOM, LLC,)	
)	
<i>Defendant.</i>)	
_____)	

MEMORANDUM

In February 2018, plaintiff WhitServe LLC (“WhitServe”) brought separate patent infringement actions against Donuts Inc., along with its subsidiary Name.com, Inc., and eNom, LLC (collectively, the “Defendants”). C.A. No. 18-193 at D.I. 1; C.A. No. 18-194 at D.I. 1. WhitServe alleges that Defendants

infringe U.S. Patent Nos. 5,895,468 (“the #468 patent”) and 6,182,078 (“the #078 patent”) which are titled, respectively, “System Automating Delivery of Professional Services” and “System for Delivering Professional Services Over the Internet.” The Court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a). Defendants have moved to dismiss the complaints pursuant to Federal Rule of Civil Procedure 12(b)(6) on the grounds that the patents recite patent ineligible subject matter under 35 U.S.C. § 101. C.A. No. 18-193 at D.I. 12; C.A. No. 18-194 at D.I. 10. For the reasons discussed below, I will grant Defendants’ motions.

I. BACKGROUND¹

The complaints allege that Defendants infringe claims 1 and 24 of the #468 patent and claims 1, 3, 9, and 11 of the #078 patent. D.I. 1 at ¶¶ 22, 31. Only claims 3 and 11 of the #078 patent are dependent. D.I. 1-2. All the remaining claims are independent. *Id.*; D.I. 1-1. The #468 and #078 patents share a common written description that was first filed on October 7, 1996. D.I. 1 at ¶ 13.

As the patents-in-suit explain, attorneys and other professionals have to perform many functions that “involve a series of deadlines” and these functions cannot be completed without client authorization or action. D.I. 1-1 at 1:11-16.

¹ Unless otherwise noted, the citations herein are to WhitServe’s complaint in C.A. No. 18-193 and the exhibits attached to that complaint, all of which are essentially identical to the complaint and exhibits in C.A. 18-194.

Before the invention disclosed in the patents-in-suit, professionals relied on a docketing system, “which typically contains a database of deadlines,” that “notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.” *Id.* at 1:28-35. A disadvantage of the docketing system, however, was that it provided “aid in only one of the many steps which the professionals must perform.” *Id.* at 1:36-38. Professionals still had to spend “countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client.” *Id.* at 1:21-23, 40-53. The entire process of sending clients a reminder and obtaining a timely response is “often time-intensive, costly, and tedious.” *Id.* at 1:19-20.

The patents-in-suit purport to solve these problems by disclosing “an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients.” *Id.* at 2:6-9. The system is comprised of a computer, a database, software, and a communication link with the Internet. *Id.* at 6:54-7:8. As the patents-in-suit explain, the advantage of a system “in which communications between the professional and the client take place over the Internet” is that “[t]hese technologies greatly decrease the costs and increase the timeliness of communication.” *Id.* at 1:58-2:14.

Claim 1 of the #468 patent, which may be considered representative of all claims in the #468 patent family, recites:²

A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form from the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

D.I. 1-1 at 6:54-7:8.

² WhitServe disagrees that claim 1 of the #468 patent is representative of the other claims. D.I. 18 at 3. But the Federal Circuit has previously determined, in a decision WhitSeve favorably cites here, that “Claim 1 of the #468 Patent is representative of the claims in the #468 Patent Family.” *See Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 18 (Fed. Cir. 2012).

The other independent claims asserted against Defendants are, with a few caveats, essentially identical to claim 1 of the #468. The only meaningful difference between claim 1 of the #468 patent and claim 1 of #078 patent is that claim 1 of the #078 patent does not include the last limitation of claim 1 of the #468 patent regarding “automatically receiving a reply to the response form from the client.” D.I. 1-2 at 8:4-22. Claim 24 of the #468 patent and claim 9 of the #078 patent are, in all meaningful respects, the same as claim 1 of the #468 patent, except directed towards a “method” instead of a “device.” D.I. 1-1 at 10:8-24; D.I. 1-2 at 9:13-10:9. Finally, dependent claim 3 in the #078 patent narrows the device of claim 1 by limiting the form of the device to a webpage. D.I. 1-2 at 8:24. Similarly, claim 11 of #078 patent narrows the method in claim 9 by requiring that the step for generating a client response form comprises “generating of a webpage.” D.I. 1-2 at 10:12-13.

II. STANDARD OF REVIEW

Under Rule 12(b)(6), a party may move to dismiss a complaint for “failure to state a claim upon which relief can be granted.” Fed. R. Civ. P. 12(b)(6). To survive the motion to dismiss, the complaint need not contain “detailed factual allegations,” but it must contain sufficient factual matter to “state a claim to relief that is plausible on its face.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp v. Twombly*, 550 U.S. 544, 555, 570 (2007)). In assessing the

plausibility of a claim, the Court must accept all well-pleaded factual allegations in the complaint as true and draw all reasonable inferences in favor of the plaintiff.

In re Rockefeller Ctr. Prop., Inc. Sec. Litig., 311 F.3d 198, 215 (3d Cir. 2002). The Court's review is limited to the allegations in the complaint, exhibits attached to the complaint, and documents incorporated by reference. *Mayer v. Belichick*, 605 F.3d 223, 230 (3d Cir. 2010); *El-Hewie v. Bergen Cty.*, 348 F. App'x 790, 794 (3d Cir. 2009).

It is well-settled that courts may determine patent eligibility under § 101 at the Rule 12(b)(6) stage. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018) (stating that patent eligibility “may be, and frequently has been, resolved on a Rule 12(b)(6) or (c) motion”); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016) (stating that “it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion” (quoting *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373–74 (Fed. Cir. 2016))); *see also Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1379 (Fed. Cir. 2018) (affirming Rule 12(b)(6) dismissal based on § 101 patent ineligibility); *Maxon, LLC v. Funai Corp.*, 726 F. App'x 797, 798 (Fed. Cir. 2018) (same). Determining eligibility at the pleadings stage is possible, however, “only when there are no factual allegations that, taken as true, prevent resolving the

eligibility question as a matter of law.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018).

III. DISCUSSION

Defendants have moved to dismiss the complaint on the grounds that the #468 and #078 patents are directed to an abstract idea and, therefore, ineligible for patent protection under 35 U.S.C. § 101. In opposing Defendants’ motion, WhitServe has raised three arguments: First, the #468 and #078 patents are not ineligible under § 101; second, a motion to dismiss based on § 101 is inappropriate at this stage of the proceedings; and, third, the validity of the claims has already been upheld by other courts and the United States Patent and Trademark Office (“USPTO”). Each argument is addressed in turn.

A. Patent Eligibility under *Alice*

Section 101 of the Patent Act defines patent-eligible subject matter. It provides: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101.

There are three judicially-created limitations on the literal words of § 101. The Supreme Court has long held that laws of nature, natural phenomena, and abstract ideas are not patentable subject matter. *Alice Corp. Pty. v. CLS Bank Int’l*,

573 U.S. 208, 216 (2014). These exceptions to patentable subject matter arise from the concern that the monopolization of “these basic tools of scientific and technological work” “might tend to impede innovation more than it would tend to promote it.” *Id.* (internal quotation marks and citations omitted).

“[A]n invention is not rendered ineligible for patent [protection] simply because it involves an abstract concept[.]” *Id.* at 217. “[A]pplication[s] of such concepts to a new and useful end . . . remain eligible for patent protection.” *Id.* (internal quotation marks and citations omitted). But in order “to transform an unpatentable law of nature [or abstract idea] into a patent-eligible application of such law [or abstract idea], one must do more than simply state the law of nature [or abstract idea] while adding the words ‘apply it.’” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012) (emphasis omitted).

In *Alice*, the Supreme Court made clear that the framework laid out in *Mayo* for determining if a patent claims eligible subject matter involves two steps. The Court must first determine whether the patent’s claims are drawn to a patent-ineligible concept—i.e., are the claims directed to a law of nature, natural phenomenon, or abstract idea? 573 U.S. at 217. If the answer to this question is no, then the patent is not invalid for teaching ineligible subject matter. If the answer to this question is yes, then the Court must proceed to step two, where it considers “the elements of each claim both individually and as an ordered

combination” to determine if there is an “inventive concept—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* at 217–18 (alteration in original) (internal quotations and citations omitted).³

1. Step One

Defendants contend that the #468 and #078 patents are directed to the abstract idea of preparing, sending, and receiving responses to due-date reminders for clients of professional-services clients. I agree. There is no “definitive rule” as to what constitutes an “abstract idea” under § 101. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). At its core, the “abstract ideas” exception “embodies ‘the longstanding rule that an idea of itself is not patentable.’” *Alice*, 134 S. Ct. at 2355 (internal punctuation omitted) (quoting *Gottschalk v. Benson*,

³ The Court in *Alice* literally said that this two-step framework is “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” 573 U.S. at 217. But as a matter of logic, I do not see how the first step of the *Alice/Mayo* framework can distinguish (or even help to distinguish) patents in terms of these two categories (i.e., the categories of (1) “patents that claim laws of nature, natural phenomena, and abstract ideas” and (2) patents “that claim patent-eligible applications of [laws of nature, natural phenomena, and abstract ideas]”). Both categories *by definition* claim laws of nature, natural phenomena, and abstract ideas; and only one of *Alice*’s steps (i.e., the second, “inventive concept” step) could distinguish the two categories. I therefore understand *Alice*’s two-step framework to be the framework by which courts are to distinguish patents that claim eligible subject matter under § 101 from patents that do not claim eligible subject matter under § 101.

409 U.S. 63, 67 (1972)). Nevertheless, the Supreme Court and the Federal Circuit have provided some guideposts. First, claims reciting “‘method[s] of organizing human activity’ are not patent-eligible because they are abstract ideas.” *Smartflash LLC v. Apple Inc.*, 680 F. App’x 977, 982 (Fed. Cir. 2017) (quoting *Alice*, 134 S. Ct. at 2356). Second, courts should distinguish between claims “directed to an improvement to computer functionality”—which are not abstract—and claims “simply adding conventional computer components to well-known business practices”—which are abstract. *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (quoting *Enfish*, 822 F.3d at 1335). In navigating the parameters of an abstract idea, courts have generally sought to “compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish*, 822 F.3d at 1334. A review of precedential cases shows that the asserted claims here are directed to an abstract idea.

To start, the asserted claims recite in broad terms searching a database for client due dates, generating a client reminder regarding the upcoming due dates, sending the reminder to the client, and receiving the client’s response. As the Federal Circuit explained, claims that recite receiving, storing, and selectively retrieving information to generate reports—as the claims here do—“describe[] little more than the automation of a ‘method of organizing human activity.’” *In re Salwan*, 681 F. App’x 938, 941 (Fed. Cir. 2017). Because the claims are not

meaningfully different from other claims directed to methods of organizing human activity, they merely recite an abstract idea. *See Gust, Inc., v. Alphacap Ventures, LLC*, 905 F.3d 1321, 1336 (Fed. Cir. 2018) (claims that “merely recite a series of steps for storing and organizing investment data that could all be performed by humans without a computer” are “not meaningfully different from the ideas found to be abstract in other cases ... involving methods of organizing human activity”); *Planet Bingo LLC v. VKGS LLC*, 576 F. App’x 1005, 1006 (Fed. Cir. 2014) (claims reciting computer-aided method and systems for “managing a game of Bingo” directed to the abstract idea of organizing human activity).

The asserted claims can also be read as reciting use of generic computer technology to automate a well-known business practice. The written description acknowledges that the claimed steps were already performed in the professional world, where “oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client and then take some action based on the client’s response.” D.I. 1-1 at 1:12-16. The asserted claims seek to “automatically deliver[]” these professional services with the aid of “a computer,” “a database,” “software,” and a “communication link” through the Internet, but do not explain how such automation is implemented. It is readily apparent that the asserted claims provide for no more than generic computer components, because the patents provide no technical details or limitations with

respect to the components. At most, a few of the components, such as the “database” and “software,” are described in terms of their routine functions. The database must “contain[] a plurality of client reminders.” D.I. 1-1 at 2:37-38. The software is capable of “querying the database,” “generating a client response form,” “transmitting the client response form” through use of the Internet, and preferably “receiving a reply.” *Id.* at 2:40-47. Storing data is a “generic computer function[].” *In re TLI Comm’n’s LLC Patent Litig.*, 823 F.3d at 612. “[S]ending and receiving information” over a network are “routine computer functions.” *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1329 (Fed. Cir. 2017).

The Federal Circuit has repeatedly held that claims reciting automation of a conventional business practice using generic computer technology are directed to an abstract idea. *See Return Mail, Inc. v. United States Postal Serv.*, 868 F.3d 1350, 1368 (Fed. Cir. 2017) (claims which recite an “existing business practice” performed “with the benefit of generic computing technology”—i.e., processing mail undeliverable due to an incorrect or obsolete address—are directed to an abstract idea); *In re Salwan*, 681 F. App’x at 941 (claims directed to automating the “conventional business practice” of billing insurance companies and organizing patient health information recite abstract idea); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (claims reciting “a

conventional business practice—the screening of messages by corporate organizations—in the context of electronic communications” were directed to an abstract idea); *Shortridge v. Found. Constr. Payroll Serv., LLC*, 655 F. App’x 848, 852 (Fed. Cir. 2016) (claims directed to “use of a general purpose computer to perform [a] business method”—i.e., verifying to governing jurisdictions that the payroll was processed using certified payroll records—recite abstract idea); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1339, 1342 (Fed. Cir. 2013) (claims directed to automated methods for generating task lists to be performed by an insurance organization were directed to a patent-ineligible abstract idea). To survive § 101, WhitServe must do more than “merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014).

WhitServe argues that the claims are far from abstract, because they recite a specific structure with physical components. D.I. 18 at 10. It is well-settled, however, that “mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea.” *In re TLI Comm’ns LLC Patent Litig.*, 823 F.3d at 613; *Mortg. Grader, Inc. v. First Choice Loan Serv. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible

claim patent-eligible.” (quoting *DDR Holdings*, 773 F.3d at 1256) (alteration in original)). As the Supreme Court explained, “[g]iven the ubiquity of computers, wholly generic computer implementation is not generally the sort of ‘additional feature’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself.’” *Alice*, 134 S. Ct. at 2358 (internal citations and punctuation omitted) (quoting *Mayo*, 566 U.S. at 77).

Indeed, courts have repeatedly found that the specific components recited here—“a computer,” “a database,” “software,” and a “communication link” through the Internet—were not enough to render the claims nonabstract. *See Alice*, 134 S. Ct. at 2360 (claims reciting “a general-purpose digital computer” are nevertheless “directed to” an abstract idea); *Mortg. Grader*, 811 F.3d at 1324–25 (claims reciting an “interface,” “network,” and a “database” are nevertheless directed to an abstract idea); *Symantec*, 838 F.3d at 1320 (“performance of an abstract idea on the Internet is abstract”); *DDR Holdings*, 773 F.3d at 1256 (collecting cases where claims that “recited various computer hardware elements” were nevertheless “directed to nothing more than the performance of an abstract business practice on the Internet or using a conventional computer”).

WhitServe further argues that the claims are not abstract, because the “client response form” and “client reminder date field” are specific and particularized to

each client. D.I. 18 at 10-11. But the Federal Circuit has repeatedly held that “tailoring of content based on information about the user...is an abstract idea.” *Evolutionary Intelligence LLC v. Sprint Nextel Corp.*, 677 F. App’x 679, 680 (Fed. Cir. 2017) (quoting *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1271 (Fed. Cir. 2016)); *Intellectual Ventures I LLC v. Capital One Bank*, 792 F.3d 1363, 1369 (Fed. Cir. 2015) (concluding that a patent directed to “customizing web page content” based upon “information known about the user” not patent eligible). As the Federal Circuit explained, “information tailoring is ‘a fundamental ... practice long prevalent in our system.’” *Capital One*, 792 F.3d at 1369 (ellipses in original) (quoting *Alice*, 134 S. Ct. at 2356).

Finally, the claims are not directed to an improvement in computer functionality. According to the written description, the problem facing the inventor was the time-consuming and tedious nature of tracking, generating, sending, and receiving responses to client reminders about upcoming due dates. The written description states that the claimed invention seeks to “improve[] the speed, efficiency, and reliability of performing services for clients” by combining into one device the previously disparate methods of performing these tasks. But “mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.” *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2016).

2. Step Two

In step two of *Alice*, the elements of the claim are considered, both individually and as an ordered combination, to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. *Content Extraction & Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). To save a patent at step two, an inventive concept “must be evident in the claims.” *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1338 (Fed. Cir. 2017).

Here, the claims elements, considered both individually and as an ordered combination, recite nothing more than “generic computer components employed in a customary manner,” which is insufficient to transform an abstract idea into a patent-eligible invention. *Audatex N. Am., Inc. v. Mitchell Int’l, Inc.*, 703 F. App’x 986, 990 (Fed. Cir. 2017); *Mortg. Grader*, 811 F.3d at 1324–25 (holding that generic computer components such as an “interface,” “network,” and “database” fail to satisfy the “inventive concept requirement”); *Capital One*, 792 F.3d at 1369 (“Instructing one to ‘apply’ an abstract idea and reciting no more than generic computer elements performing generic computer tasks does not make an abstract idea patent-eligible.”); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (“The claims’ invocation of the Internet ... adds no inventive concept.”).

WhitServe argues that the invention allows for “faster and simpler communication.” D.I. 18 at 16-17. But “claiming the improved speed or efficiency inherent with applying the abstract idea on a computer” does not provide a sufficient inventive concept. *Capital One*, 792 F.3d at 1367 (“[T]he fact that the web-site returns the pre-designed ad more quickly than a newspaper could send the user a location-specific advertisement insert does not confer patent eligibility”); *Audatex*, 703 F. App’x at 990 (“[U]se of the Internet to increase the speed and efficiency of an abstract process ... is not enough.”).

WhitServe also contends that dependent claim 3 of #078 patent adds an inventive concept by requiring that the form of the invention be a web page. D.I. 18 at 16-17. This additional limitation, however, merely limits the claims to a particular technological environment, which does not confer patent eligibility on an abstract concept. *See Alice*, 134 S. Ct. at 2358 (limiting the use of an abstract idea “to a particular technological environment” cannot transform it into a patent-eligible invention); *VideoShare, LLC v. Google, Inc.*, 2016 WL 4137524 at *9 (D. Del. Aug. 2, 2016) (limiting abstract claims “to a particular technological environment, such as computer networks or a web page, does not provide an inventive concept”) *aff’d* 695 F. App’x 577 (Fed. Cir. 2017).

B. Patent Eligibility under *Berkheimer* and *Aatrix*

WhitServe also seeks to bring this case within the scope of the Federal Circuit's decisions in *Berkheimer* and *Aatrix*, which generally held that factual issues precluded a determination that the claims were patent ineligible. I find, however, that neither case is applicable here. In *Berkheimer*, the Federal Circuit affirmed in part and reversed in part a district court's grant of summary judgment on patent ineligibility grounds. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1362 (Fed. Cir. 2018). At step one of the eligibility analysis, the Federal Circuit agreed that each claim was directed to an abstract idea. *Id.* at 1366. At step two, however, the Federal Circuit disagreed with the district court's conclusion that the claims recited only "well-understood, routine, and conventional" computer functions. *Id.* at 1368. As the Federal Circuit explained, the defendant offered no evidence that the claimed invention was well-understood, routine, and conventional. *Id.* At the same time, the written description "describe[d] an inventive feature that stores parsed data in a purportedly unconventional manner." *Id.* at 1369. And, three of the eight claims "contain[ed] limitations directed to the arguably unconventional inventive concept described in the specification." *Id.* at 1370. Thus, the written description in conjunction with certain claims raised a factual dispute regarding the presence of an inventive concept, which made summary judgement inappropriate at that time. *Id.* at 1369-70. In sum, under *Berkheimer*, improvements in

technology described in the written description and captured in the claims may create fact questions which preclude finding a patent ineligible as a matter of law.

In *Aatrix*, the district court granted a motion to dismiss on § 101 grounds and denied leave to amend. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1123 (Fed. Cir. 2018). The Federal Circuit vacated the dismissal and reversed the denial of leave. *Id.* As the Federal Circuit explained, the proposed second amended complaint contained “numerous” and “specific” factual allegations directed to problems in computer functionality that were “solved by the Aatrix patented inventions.” *Id.* at 1127. For example, the second amended complaint alleged that “the claimed software uses less memory, results in faster processing speed, and reduces the risk of thrashing which makes the computer process forms more efficiently.” *Id.* Similarly, allegations about the data file claimed “an improvement in importing data from third-party software.” *Id.* Because these allegations, taken as true, “suggest[ed] that the claimed invention [was] directed to an improvement in the computer technology itself,” the district court erred in finding, on a motion to dismiss, that the claimed invention was conventional and routine. *Id.* at 1127-28.

Here, *Berkheimer* and *Aatrix* are inapplicable because neither the patent nor the complaint alleges any improvement in technology. Rather, the patent describes improving the speed and efficiency with which humans deliver professional

services by automating that practice through use of generic computer components performing routine functions.

C. Prior Court and USPTO Decisions

In opposing Defendants' motion, WhitServe suggests that this Court should decline to consider the patent eligibility of the asserted claims under § 101, because the issue has already been addressed by the USPTO and two other courts. D.I. 18 at 3-5. There are several problems, however, with WhitServe's assertion.

First, all of the USPTO proceedings WhitServe cites occurred before the Supreme Court's decision in *Alice* and, therefore, were not based on the correct legal standard. *See id.* at 3; D.I. 1-1; D.I. 1-2.

Second, the Federal Circuit's decision in *WhitServe LLC v. Computer Packages, Inc.* was likewise issued before *Alice*. 694 F.3d 10, 39 (Fed. Cir. 2012). More important, the only discussion of § 101 in that case is dicta that appears in the dissent. 694 F.3d 10, 39 (Fed. Cir. 2012). Even if I were to consider the dicta, it sets forth a position unfavorable to WhitServe. Specifically, the dissent argued that there could be no infringement of the #468 and #078 patents (as the majority affirmed) because the patents are "barred at the threshold by 35 U.S.C. § 101." *Id.* (internal punctuation omitted) (quoting *Diamond v. Diehr*, 450 U.S. 175, 188 (1981)). Specifically, the patents "are directed to the abstract idea that it is useful

to provide people with reminders of approaching due dates and deadlines.”

WhitServe, 694 F.3d at 39.

Third, the district court in *WhitServe v. GoDaddy.com, Inc.*, No. 3:11-cv-948-JCH (D. Conn.) never substantively addressed the § 101 issue. Pre-*Alice*, the court denied GoDaddy’s motion for summary judgment without an opinion and without providing any comment on the § 101 issue. C.A. No. 3:11-948 at D.I. 304. Post-*Alice*, the court denied leave to file a renewed motion for summary judgment. *Id.* at D.I. 337. Then, the case settled before the court determined patent eligibility at trial. *Id.* at D.I. 433. Because the patent eligibility of the #468 and #078 patents has not yet been decided under the current legal standard for § 101 by either the USPTO or other courts, there is no prior decision—binding or otherwise—that I must take into consideration before rendering my decision. For these reasons, I find that this argument by WhitServe has no merit.

IV. CONCLUSION

For the foregoing reasons, Defendants’ motions to dismiss (C.A. No. 18-193 at D.I. 12; C.A. No. 18-194 at D.I. 10) are granted. An appropriate order will be entered.

Dated: July 8, 2019


UNITED STATES DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

WHITSERVE LLC,

Plaintiff,

V.

DONUTS INC. and NAME.COM,
INC.,

Defendants.

Civ. No. 18-193-CFC

WHITSERVE LLC,

Plaintiff,

V.

ENOM, LLC,

Defendant.

Civ. No. 18-194-CFC

ORDER

IT IS HEREBY ORDERED, for the reasons stated in the accompanying Memorandum, that:

1. Defendants' Motions to Dismiss (C.A. No. 18-193 at D.I. 12; C.A. No. 18-194 at D.I. 10) are GRANTED;
2. Plaintiff's Complaints (C.A. No. 18-193 at D.I. 1; C.A. No. 18-194 at D.I. 1) are DISMISSED WITH PREJUDICE.

3. The clerk of the court is directed to close the cases.

Dated: July 8, 2019


UNITED STATES DISTRICT JUDGE

CLOSED,APPEAL,PATENT

**U.S. District Court
District of Delaware (Wilmington)
CIVIL DOCKET FOR CASE #: 1:18-cv-00193-CFC
Internal Use Only**

WhitServe LLC v. Donuts Inc. et al
Assigned to: Judge Colm F. Connolly
Related Case: [1:18-cv-00194-CFC](#)
Cause: 35:271 Patent Infringement

Date Filed: 02/01/2018
Date Terminated: 07/08/2019
Jury Demand: Plaintiff
Nature of Suit: 830 Patent
Jurisdiction: Federal Question

Plaintiff**WhitServe LLC**

represented by **Stamatios Stamoulis**
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TERMINATED: 06/20/2018
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V.

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(See above for address)

LEAD ATTORNEY**ATTORNEY TO BE NOTICED**

Date Filed	#	Docket Text
02/01/2018	<u>1</u>	COMPLAINT FOR PATENT INFRINGEMENT filed with Jury Demand against Donuts Inc., Name.com, Inc. - Magistrate Consent Notice to Pltf. (Filing fee \$ 400, receipt number 0311-2314248.) - filed by WhitServe LLC. (Attachments: # <u>1</u> Exhibit 1, # <u>2</u> Exhibit 2, # <u>3</u> Civil Cover Sheet) (nmfn) (Entered: 02/02/2018)
02/01/2018	<u>2</u>	Notice, Consent and Referral forms re: U.S. Magistrate Judge jurisdiction. (nmfn) (Entered: 02/02/2018)
02/01/2018	<u>3</u>	Report to the Commissioner of Patents and Trademarks for Patent/Trademark Number(s) 5,895,468; 6,182,078 B1. (nmfn) (Entered: 02/02/2018)
02/01/2018	<u>4</u>	Disclosure Statement pursuant to Rule 7.1: No Parents or Affiliates Listed filed by WhitServe LLC. (nmfn) (Entered: 02/02/2018)
02/02/2018		Summons Issued with Magistrate Consent Notice attached as to Donuts Inc. on 2/2/2018; Name.com, Inc. on 2/2/2018. Requesting party or attorney should pick up issued summons at the Help Desk, Room 4209, or call 302-573-6170 and ask the Clerk to mail the summons to them. (nmfn) (Entered: 02/02/2018)
02/05/2018	<u>5</u>	SUMMONS Returned Executed by WhitServe LLC. Donuts Inc. served on 2/2/2018, answer due 2/23/2018. (Stamoulis, Stamatios) (Entered: 02/05/2018)
02/05/2018	<u>6</u>	SUMMONS Returned Executed by WhitServe LLC. Name.com, Inc. served on 2/2/2018, answer due 2/23/2018. (Stamoulis, Stamatios) (Entered: 02/05/2018)
02/07/2018		Case Assigned to Judge Gregory M. Sleet. Please include the initials of the Judge (GMS) after the case number on all documents filed. Associated Cases: 1:18-cv-00193-UNA, 1:18-cv-00194-UNA(nms) (Entered: 02/07/2018)
02/22/2018	<u>7</u>	STIPULATION TO EXTEND TIME to respond to Plaintiff's Complaint to April 23, 2018 - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 02/22/2018)
02/22/2018	<u>8</u>	STIPULATION TO EXTEND TIME to respond to Plaintiff's Complaint to April 23, 2018 - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 02/22/2018)

02/22/2018	9	MOTION for Pro Hac Vice Appearance of Attorney Michael J. Kosma - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 02/22/2018)
02/22/2018	10	MOTION for Pro Hac Vice Appearance of Attorney Natasha Rodriguez - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 02/22/2018)
02/26/2018		SO ORDERED - re 10 MOTION for Pro Hac Vice Appearance of Attorney Natasha Rodriguez filed by Whitserve LLC, 8 STIPULATION TO EXTEND TIME to respond to Plaintiff's Complaint to April 23, 2018 filed by WhitServe LLC, 9 MOTION for Pro Hac Vice Appearance of Attorney Michael J. Kosma filed by WhitServe LLC, Set/Reset Answer Deadlines: Donuts Inc. answer due 4/23/2018; Name.com, Inc. answer due 4/23/2018. Ordered by Judge Gregory M. Sleet on 2/26/2018. (mdb) (Entered: 02/26/2018)
03/02/2018		Pro Hac Vice Attorney Natasha Rodriguez, Michael J. Kosma for WhitServe LLC added for electronic noticing. Pursuant to Local Rule 83.5 (d)., Delaware counsel shall be the registered users of CM/ECF and shall be required to file all papers. (dmp) (Entered: 03/02/2018)
04/17/2018	11	STIPULATION TO EXTEND TIME for defendants to move, answer, or otherwise respond to the Complaint to May 7, 2018 - filed by Donuts Inc., Name.com, Inc.. (Blumenfeld, Jack) (Entered: 04/17/2018)
04/19/2018		SO ORDERED - re 11 STIPULATION TO EXTEND TIME for defendants to move, answer, or otherwise respond to the Complaint to May 7, 2018 filed by Donuts Inc., Name.com, Inc., Set/Reset Answer Deadlines: Donuts Inc. answer due 5/7/2018; Name.com, Inc. answer due 5/7/2018. Ordered by Judge Gregory M. Sleet on 4/19/2018. (mdb) (Entered: 04/19/2018)
05/07/2018	12	MOTION to Dismiss - filed by Donuts Inc., Name.com, Inc.. (Blumenfeld, Jack) (Entered: 05/07/2018)
05/07/2018	13	OPENING BRIEF in Support re 12 MOTION to Dismiss filed by Donuts Inc., Name.com, Inc.. Answering Brief/Response due date per Local Rules is 5/21/2018. (Attachments: # 1 Exhibits 1-3)(Blumenfeld, Jack) (Entered: 05/07/2018)
05/07/2018	14	Disclosure Statement pursuant to Rule 7.1: identifying Corporate Parent Donuts Inc. for Name.com, Inc. filed by Donuts Inc., Name.com, Inc.. (Blumenfeld, Jack) (Entered: 05/07/2018)
05/08/2018	15	ORDER REGARDING CASE MANAGEMENT IN CIVIL CASES. Signed by Judge Gregory M. Sleet on 5/8/2018. (asw) (Entered: 05/08/2018)
05/15/2018	16	STIPULATION TO EXTEND TIME to respond to Defendant's Motion to Dismiss and for the parties to submit their Joint Status Report and Proposed Scheduling Order to June 20, 2018 and July 9, 2018, respectively - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 05/15/2018)

05/18/2018		SO ORDERED - re 16 STIPULATION TO EXTEND TIME to respond to Defendant's Motion to Dismiss and for the parties to submit their Joint Status Report and Proposed Scheduling Order to June 20, 2018 and July 9, 2018, respectively filed by WhitServe LLC, Set Briefing Schedule: re 12 MOTION to Dismiss. (Answering Brief due 6/20/2018). Ordered by Judge Gregory M. Sleet on 5/18/2018. (mdb) (Entered: 05/18/2018)
06/19/2018	17	NOTICE of Withdrawal of Counsel by WhitServe LLC (Stamoulis, Stamatis) (Entered: 06/19/2018)
06/20/2018		(Court only) *** Attorney Natasha Rodriguez terminated. Associated Cases: 1:18-cv-00193-GMS, 1:18-cv-00194-GMS(mdb) (Entered: 06/20/2018)
06/20/2018	18	ANSWERING BRIEF in Opposition re 12 MOTION to Dismiss filed by WhitServe LLC. Reply Brief due date per Local Rules is 6/27/2018. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H)(Stamoulis, Stamatis) (Entered: 06/20/2018)
06/25/2018	19	STIPULATION TO EXTEND TIME (1) for defendants to file their reply brief in support of their motion to dismiss and (2) for the parties to submit the joint status report and proposed scheduling order to July 27, 2018 and August 8, 2018, respectively - filed by Donuts Inc., Name.com, Inc., eNom, LLC. (Blumenfeld, Jack) (Entered: 06/25/2018)
06/27/2018		SO ORDERED - re (17 in 1:18-cv-00194-GMS, 19 in 1:18-cv-00193-GMS) STIPULATION TO EXTEND TIME (1) for defendants to file their reply brief in support of their motion to dismiss and (2) for the parties to submit the joint status report and proposed scheduling order to July 27, 2018 and August 8, 2018, respectively. Set Briefing Schedule: re (12 in 1:18-cv-00193-GMS) MOTION to Dismiss, (10 in 1:18-cv-00194-GMS) MOTION to Dismiss. (Reply Brief due 7/27/2018). Ordered by Judge Gregory M. Sleet on 6/27/2018. Associated Cases: 1:18-cv-00193-GMS, 1:18-cv-00194-GMS(mdb) (Entered: 06/27/2018)
07/27/2018	20	REPLY BRIEF re 12 MOTION to Dismiss filed by Donuts Inc., Name.com, Inc.. (Blumenfeld, Jack) (Entered: 07/27/2018)
08/03/2018	21	REQUEST for Oral Argument by WhitServe LLC re 12 MOTION to Dismiss. (Stamoulis, Stamatis) (Entered: 08/03/2018)
08/08/2018	22	STIPULATION TO EXTEND TIME to submit the Joint Status Report and Proposed Scheduling Order as set forth in the Court's June 27, 2018 Stipulation to Extend time to fourteen (14) days after the Court's ruling on Defendants' Motion to Dismiss - filed by WhitServe LLC. (Stamoulis, Stamatis) (Entered: 08/08/2018)
08/15/2018	23	MOTION for Pro Hac Vice Appearance of Attorney Sharon L. Davis and Nicole DeAbrantes - filed by Donuts Inc., Name.com, Inc., eNom, LLC. (Blumenfeld, Jack) (Entered: 08/15/2018)

08/21/2018		SO ORDERED - re (23 in 1:18-cv-00193-GMS, 21 in 1:18-cv-00194-GMS) MOTION for Pro Hac Vice Appearance of Attorney Sharon L. Davis and Nicole DeAbrantes filed by Donuts Inc., Name.com, Inc., eNom, LLC. Ordered by Judge Gregory M. Sleet on 8/21/2018. Associated Cases: 1:18-cv-00193-GMS, 1:18-cv-00194-GMS(mdb) (Entered: 08/21/2018)
08/23/2018	24	SO ORDERED - re 22 STIPULATION TO EXTEND TIME to submit the Joint Status Report and Proposed Scheduling Order as set forth in the Court's June 27, 2018 Stipulation to Extend time to fourteen (14) days after the Court's ruling on Defendants' Motion to Dismiss filed by WhitServe LLC. Signed by Judge Gregory M. Sleet on 8/23/2018. (mdb) (Entered: 08/23/2018)
08/30/2018	25	NOTICE of Supplemental Authority by Donuts Inc., Name.com, Inc., eNom, LLC re (12 in 1:18-cv-00193-GMS) MOTION to Dismiss, (10 in 1:18-cv-00194-GMS) MOTION to Dismiss (Attachments: # 1 Exhibit 1) (Blumenfeld, Jack) (Entered: 08/30/2018)
09/20/2018		Case reassigned to Judge Colm F. Connolly. Please include the initials of the Judge (CFC) after the case number on all documents filed. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC (rjb) (Entered: 09/20/2018)
09/20/2018		ORAL ORDER: Pursuant to the reassignment of this action, the parties shall submit a joint status report on or before October 4, 2018. Please identify in the status report the next event the parties believe the Court needs to schedule. (Status report due 10/4/2018.) Ordered by Judge Colm F. Connolly on September 20, 2018. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC(nmf) (Entered: 09/20/2018)
10/04/2018	26	Joint STATUS REPORT by WhitServe LLC. (Stamoulis, Stamatis) (Entered: 10/04/2018)
01/24/2019	27	NOTICE of Change of Address by Stamatis Stamoulis (Stamoulis, Stamatis) (Entered: 01/24/2019)
07/08/2019	28	MEMORANDUM Signed by Judge Colm F. Connolly on 7/8/2019. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC(nmf) (Entered: 07/08/2019)
07/08/2019	29	ORDER granting (12) Motion to Dismiss (CASE CLOSED) in case 1:18-cv-00193-CFC; granting (10) Motion to Dismiss (CASE CLOSED) in case 1:18-cv-00194-CFC in case 1:18-cv-00193-CFC. Signed by Judge Colm F. Connolly on 7/8/2019. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC(nmf) (Entered: 07/08/2019)
07/08/2019	30	Report to the Commissioner of Patents and Trademarks for Patent/Trademark Number(s) 5,895,468 ;6,182,078 B1. (Attachments: # 1 Memorandum, # 2 Order)(nmf) (Entered: 07/08/2019)
08/06/2019	31	NOTICE OF APPEAL to the Federal Circuit of 28 Memorandum and Order, 29 Order on Motion to Dismiss,,, . Appeal filed by WhitServe LLC.

		(Stamoulis, Stamatios) (Entered: 08/06/2019)
08/06/2019		APPEAL - Credit Card Payment of \$505.00 received re 31 Notice of Appeal (Federal Circuit) filed by WhitServe LLC. (Filing fee \$505, receipt number 0311-2702775.) (Stamoulis, Stamatios) (Entered: 08/06/2019)

CLOSED, APPEAL, **PATENT**

**U.S. District Court
District of Delaware (Wilmington)
CIVIL DOCKET FOR CASE #: 1:18-cv-00194-CFC
Internal Use Only**

WhitServe LLC V. eNom, LLC
Assigned to: Judge Colm F. Connolly
Related Case: [1:18-cv-00193-CFC](#)
Cause: 35:271 Patent Infringement

Date Filed: 02/01/2018
Date Terminated: 07/08/2019
Jury Demand: Plaintiff
Nature of Suit: 830 Patent
Jurisdiction: Federal Question

Plaintiff**WhitServe LLC**

represented by **Stamatios Stamoulis**
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Email: nrodriguez@whipgroup.com
TERMINATED: 06/20/2018
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V.

Defendant**eNom, LLC**

represented by **Jack B. Blumenfeld**
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LEAD ATTORNEY
ATTORNEY TO BE NOTICED

Date Filed	#	Docket Text
02/01/2018	<u>1</u>	COMPLAINT FOR PATENT INFRINGEMENT filed with Jury Demand against eNom, LLC - Magistrate Consent Notice to Pltf. (Filing fee \$ 400, receipt number 0311-2314249.) - filed by WhitServe LLC. (Attachments: # <u>1</u> Exhibit 1, # <u>2</u> Exhibit 2, # <u>3</u> Civil Cover Sheet)(nmfn) (Entered: 02/02/2018)
02/01/2018	<u>2</u>	Notice, Consent and Referral forms re: U.S. Magistrate Judge jurisdiction. (nmfn) (Entered: 02/02/2018)
02/01/2018	<u>3</u>	Report to the Commissioner of Patents and Trademarks for Patent/Trademark Number(s) 5,895,468; 6,182,078 B1. (nmfn) (Entered: 02/02/2018)
02/01/2018	<u>4</u>	Disclosure Statement pursuant to Rule 7.1: No Parents or Affiliates Listed filed by WhitServe LLC. (nmfn) (Entered: 02/02/2018)
02/02/2018		Summons Issued with Magistrate Consent Notice attached as to eNom, LLC on 2/2/2018. Requesting party or attorney should pick up issued summons at the Help Desk, Room 4209, or call 302-573-6170 and ask the Clerk to mail the summons to them. (nmfn) (Entered: 02/02/2018)
02/05/2018	<u>5</u>	SUMMONS Returned Executed by WhitServe LLC. eNom, LLC served on 2/2/2018, answer due 2/23/2018. (Stamoulis, Stamatios) (Entered: 02/05/2018)
02/07/2018		Case Assigned to Judge Gregory M. Sleet. Please include the initials of the Judge (GMS) after the case number on all documents filed. Associated Cases: 1:18-cv-00193-UNA, 1:18-cv-00194-UNA(nms) (Entered: 02/07/2018)
02/22/2018	<u>6</u>	MOTION for Pro Hac Vice Appearance of Attorney Michael J. Kosma - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 02/22/2018)
02/22/2018	<u>7</u>	MOTION for Pro Hac Vice Appearance of Attorney Natasha Rodriguez - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 02/22/2018)
02/22/2018	<u>8</u>	STIPULATION TO EXTEND TIME to respond to Plaintiff's Complaint to April 23, 2018 - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 02/22/2018)
02/26/2018		SO ORDERED - re <u>8</u> STIPULATION TO EXTEND TIME to respond to Plaintiff's Complaint to April 23, 2018 filed by WhitServe LLC, <u>7</u> MOTION for Pro Hac Vice Appearance of Attorney Natasha Rodriguez filed by WhitServe LLC, <u>6</u> MOTION for Pro Hac Vice Appearance of Attorney Michael J. Kosma filed by WhitServe LLC, Set/Reset Answer Deadlines: eNom, LLC answer due 4/23/2018. Ordered by Judge Gregory M. Sleet on 2/26/2018. (mdb) (Entered: 02/26/2018)
03/02/2018		Pro Hac Vice Attorney Michael J. Kosma,Natasha Rodriguez for

		WhitServe LLC added for electronic noticing. Pursuant to Local Rule 83.5 (d)., Delaware counsel shall be the registered users of CM/ECF and shall be required to file all papers. (dmp) (Entered: 03/02/2018)
04/17/2018	9	STIPULATION TO EXTEND TIME for defendant to move, answer, or otherwise respond to the Complaint to May 7, 2018 - filed by eNom, LLC. (Blumenfeld, Jack) (Entered: 04/17/2018)
04/19/2018		SO ORDERED - re 9 STIPULATION TO EXTEND TIME for defendant to move, answer, or otherwise respond to the Complaint to May 7, 2018 filed by eNom, LLC, Set/Reset Answer Deadlines: eNom, LLC answer due 5/7/2018. Ordered by Judge Gregory M. Sleet on 4/19/2018. (mdb) (Entered: 04/19/2018)
05/07/2018	10	MOTION to Dismiss - filed by eNom, LLC. (Blumenfeld, Jack) (Entered: 05/07/2018)
05/07/2018	11	OPENING BRIEF in Support re 10 MOTION to Dismiss filed by eNom, LLC. Answering Brief/Response due date per Local Rules is 5/21/2018. (Attachments: # 1 Exhibits 1-3)(Blumenfeld, Jack) (Entered: 05/07/2018)
05/07/2018	12	Disclosure Statement pursuant to Rule 7.1: identifying Corporate Parent Tucows, Inc. for eNom, LLC filed by eNom, LLC. (Blumenfeld, Jack) (Entered: 05/07/2018)
05/08/2018	13	ORDER REGARDING CASE MANAGEMENT IN CIVIL CASES. Signed by Judge Gregory M. Sleet on 5/8/2018. (asw) (Entered: 05/08/2018)
05/15/2018	14	STIPULATION TO EXTEND TIME to respond to Defendant's Motion to Dismiss and for the parties to submit their Joint Status Report and Proposed Scheduling Order to June 20, 2018 and July 9, 2018, respectively - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 05/15/2018)
05/18/2018		SO ORDERED - re 14 STIPULATION TO EXTEND TIME to respond to Defendant's Motion to Dismiss and for the parties to submit their Joint Status Report and Proposed Scheduling Order to June 20, 2018 and July 9, 2018, respectively filed by WhitServe LLC, Set Briefing Schedule: re 10 MOTION to Dismiss. (Answering Brief due 6/20/2018). Ordered by Judge Gregory M. Sleet on 5/18/2018. (mdb) (Entered: 05/18/2018)
06/19/2018	15	NOTICE of Withdrawal of Counsel by WhitServe LLC (Stamoulis, Stamatios) (Entered: 06/19/2018)
06/20/2018		(Court only) *** Attorney Natasha Rodriguez terminated. Associated Cases: 1:18-cv-00193-GMS, 1:18-cv-00194-GMS(mdb) (Entered: 06/20/2018)
06/20/2018	16	ANSWERING BRIEF in Opposition re 10 MOTION to Dismiss filed by WhitServe LLC. Reply Brief due date per Local Rules is 6/27/2018. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H)(Stamoulis,

		Stamatios) (Entered: 06/20/2018)
06/25/2018	17	STIPULATION TO EXTEND TIME (1) for defendants to file their reply brief in support of their motion to dismiss and (2) for the parties to submit the joint status report and proposed scheduling order to July 27, 2018 and August 8, 2018, respectively - filed by Donuts Inc., Name.com, Inc., eNom, LLC. (Blumenfeld, Jack) (Entered: 06/25/2018)
06/27/2018		SO ORDERED - re (17 in 1:18-cv-00194-GMS, 19 in 1:18-cv-00193-GMS) STIPULATION TO EXTEND TIME (1) for defendants to file their reply brief in support of their motion to dismiss and (2) for the parties to submit the joint status report and proposed scheduling order to July 27, 2018 and August 8, 2018, respectively. Set Briefing Schedule: re (12 in 1:18-cv-00193-GMS) MOTION to Dismiss, (10 in 1:18-cv-00194-GMS) MOTION to Dismiss. (Reply Brief due 7/27/2018). Ordered by Judge Gregory M. Sleet on 6/27/2018. Associated Cases: 1:18-cv-00193-GMS, 1:18-cv-00194-GMS(mdb) (Entered: 06/27/2018)
07/27/2018	18	REPLY BRIEF re 10 MOTION to Dismiss filed by eNom, LLC. (Blumenfeld, Jack) (Entered: 07/27/2018)
08/03/2018	19	REQUEST for Oral Argument by WhitServe LLC re 10 MOTION to Dismiss. (Stamoulis, Stamatios) (Entered: 08/03/2018)
08/08/2018	20	STIPULATION TO EXTEND TIME to submit the Joint Status Report and Proposed Scheduling Order as set forth in the Court's June 27, 2018 Stipulation to Extend Time to fourteen (14) days after the Court's ruling on Defendants' Motion to Dismiss - filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 08/08/2018)
08/15/2018	21	MOTION for Pro Hac Vice Appearance of Attorney Sharon L. Davis and Nicole DeAbrantes - filed by Donuts Inc., Name.com, Inc., eNom, LLC. (Blumenfeld, Jack) (Entered: 08/15/2018)
08/21/2018		SO ORDERED - re (23 in 1:18-cv-00193-GMS, 21 in 1:18-cv-00194-GMS) MOTION for Pro Hac Vice Appearance of Attorney Sharon L. Davis and Nicole DeAbrantes filed by Donuts Inc., Name.com, Inc., eNom, LLC. Ordered by Judge Gregory M. Sleet on 8/21/2018. Associated Cases: 1:18-cv-00193-GMS, 1:18-cv-00194-GMS(mdb) (Entered: 08/21/2018)
08/23/2018		SO ORDERED - re 20 STIPULATION TO EXTEND TIME to submit the Joint Status Report and Proposed Scheduling Order as set forth in the Court's June 27, 2018 Stipulation to Extend Time to fourteen (14) days after the Court's ruling on Defendants' Motion to Dismiss filed by WhitServe LLC. Ordered by Judge Gregory M. Sleet on 8/23/2018. (mdb) (Entered: 08/23/2018)
08/30/2018	22	NOTICE of Supplemental Authority by Donuts Inc., Name.com, Inc., eNom, LLC re (12 in 1:18-cv-00193-GMS) MOTION to Dismiss, (10 in 1:18-cv-00194-GMS) MOTION to Dismiss (Attachments: # 1 Exhibit 1) (Blumenfeld, Jack) (Entered: 08/30/2018)

09/20/2018		Case reassigned to Judge Colm F. Connolly. Please include the initials of the Judge (CFC) after the case number on all documents filed. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC (rjb) (Entered: 09/20/2018)
09/20/2018		ORAL ORDER: Pursuant to the reassignment of this action, the parties shall submit a joint status report on or before October 4, 2018. Please identify in the status report the next event the parties believe the Court needs to schedule. (Status report due 10/4/2018.) Ordered by Judge Colm F. Connolly on September 20, 2018. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC(nmf) (Entered: 09/20/2018)
10/04/2018	<u>23</u>	Joint STATUS REPORT by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 10/04/2018)
01/24/2019	<u>24</u>	NOTICE of Change of Address by Stamatios Stamoulis (Stamoulis, Stamatios) (Entered: 01/24/2019)
07/08/2019	<u>25</u>	MEMORANDUM Signed by Judge Colm F. Connolly on 7/8/2019. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC(nmf) (Entered: 07/08/2019)
07/08/2019	<u>26</u>	ORDER granting (12) Motion to Dismiss (CASE CLOSED) in case 1:18-cv-00193-CFC; granting (10) Motion to Dismiss (CASE CLOSED) in case 1:18-cv-00194-CFC in case 1:18-cv-00193-CFC. Signed by Judge Colm F. Connolly on 7/8/2019. Associated Cases: 1:18-cv-00193-CFC, 1:18-cv-00194-CFC(nmf) (Entered: 07/08/2019)
07/08/2019	<u>27</u>	Report to the Commissioner of Patents and Trademarks for Patent/Trademark Number(s) 5,895,468 ;6,182,078 B1. (Attachments: # <u>1</u> Memorandum, # <u>2</u> Order)(nmf) (Entered: 07/08/2019)
08/06/2019	<u>28</u>	NOTICE OF APPEAL to the Federal Circuit of <u>26</u> Order on Motion to Dismiss,,, <u>25</u> Memorandum and Order . Appeal filed by WhitServe LLC. (Stamoulis, Stamatios) (Entered: 08/06/2019)
08/06/2019		APPEAL - Credit Card Payment of \$505.00 received re <u>28</u> Notice of Appeal (Federal Circuit) filed by WhitServe LLC. (Filing fee \$505, receipt number 0311-2702773.) (Stamoulis, Stamatios) (Entered: 08/06/2019)
08/07/2019		Notice of Appeal and Docket Sheet to US Court of Appeals for the Federal Circuit re <u>28</u> Notice of Appeal (Federal Circuit). (kmd) (Entered: 08/07/2019)



US005895468A

United States Patent [19]
Whitmyer, Jr.

[11] **Patent Number:** **5,895,468**
[45] **Date of Patent:** ***Apr. 20, 1999**

[54] **SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES**

5,758,328 5/1998 Giovannoli 705/26

[76] **Inventor:** **Wesley W. Whitmyer, Jr.**, 198 Old Kings Hwy. S., Darien, Conn. 06820

[*] **Notice:** This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] **Appl. No.:** **08/726,999**

[22] **Filed:** **Oct. 7, 1996**

[51] **Int. Cl.⁶** **G06F 17/30**

[52] **U.S. Cl.** **707/10; 707/501; 707/513; 705/26; 395/200.47; 395/200.48**

[58] **Field of Search** **707/9, 10, 513, 707/505-508, 501; 705/26, 1-9, 27; 395/200.33, 200.47, 200.48, 200.49**

[56] **References Cited**

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Primary Examiner—Thomas G. Black

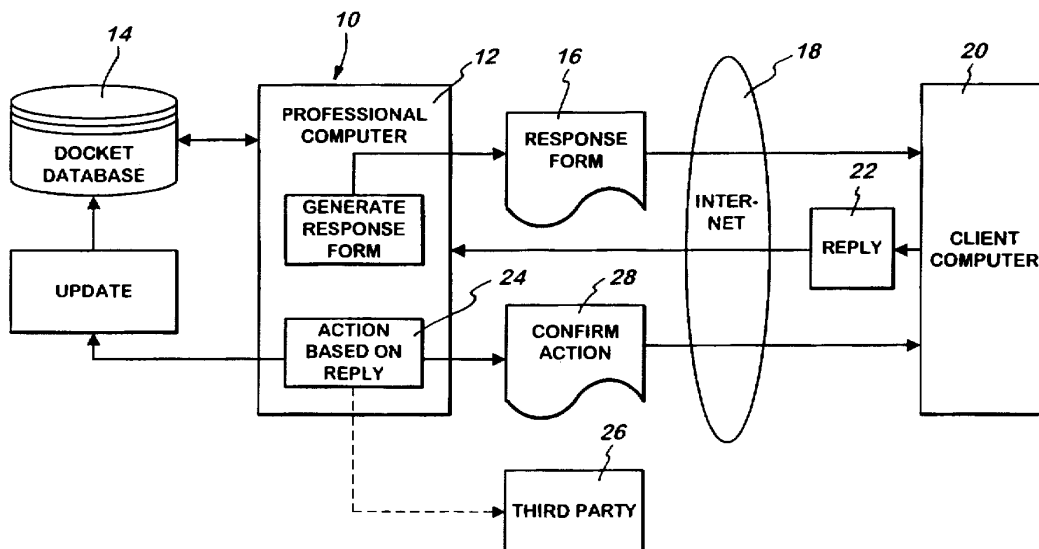
Assistant Examiner—Hosain T. Alam

Attorney, Agent, or Firm—St. Onge Steward Johnston & Reens LLC

[57] **ABSTRACT**

A device for automatically delivering professional services to a client is provided. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

27 Claims, 5 Drawing Sheets



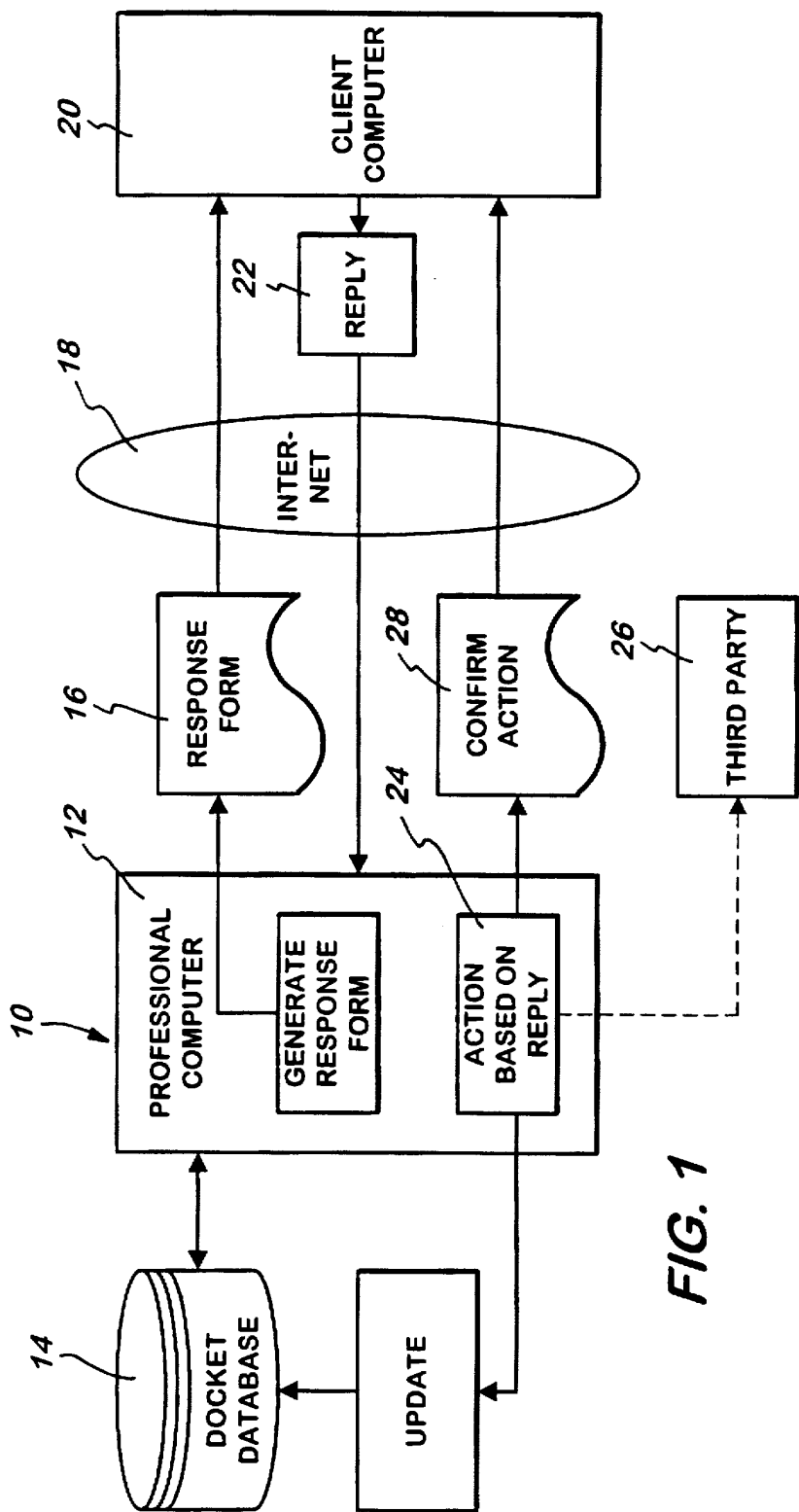


FIG. 1

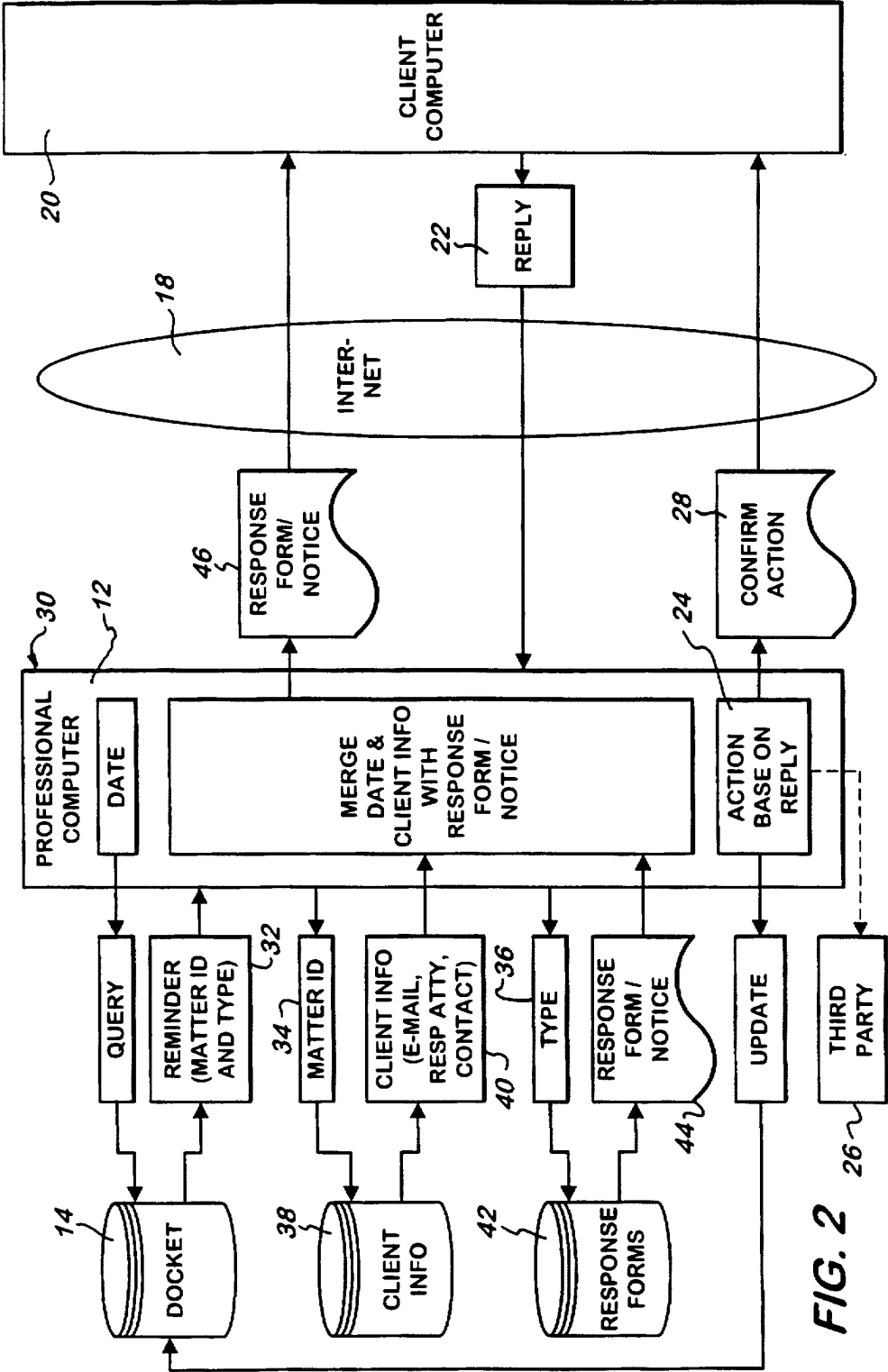
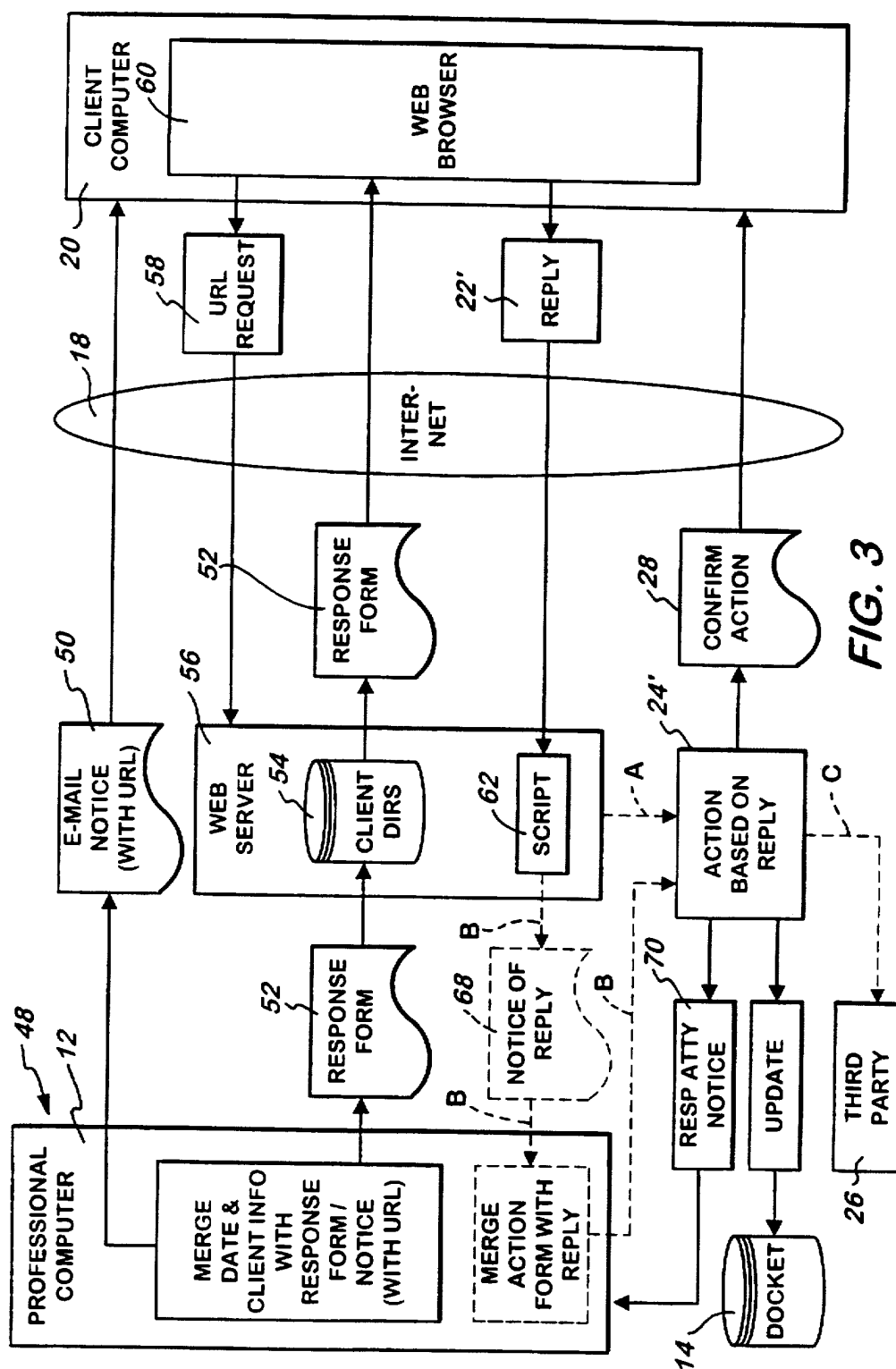


FIG. 2



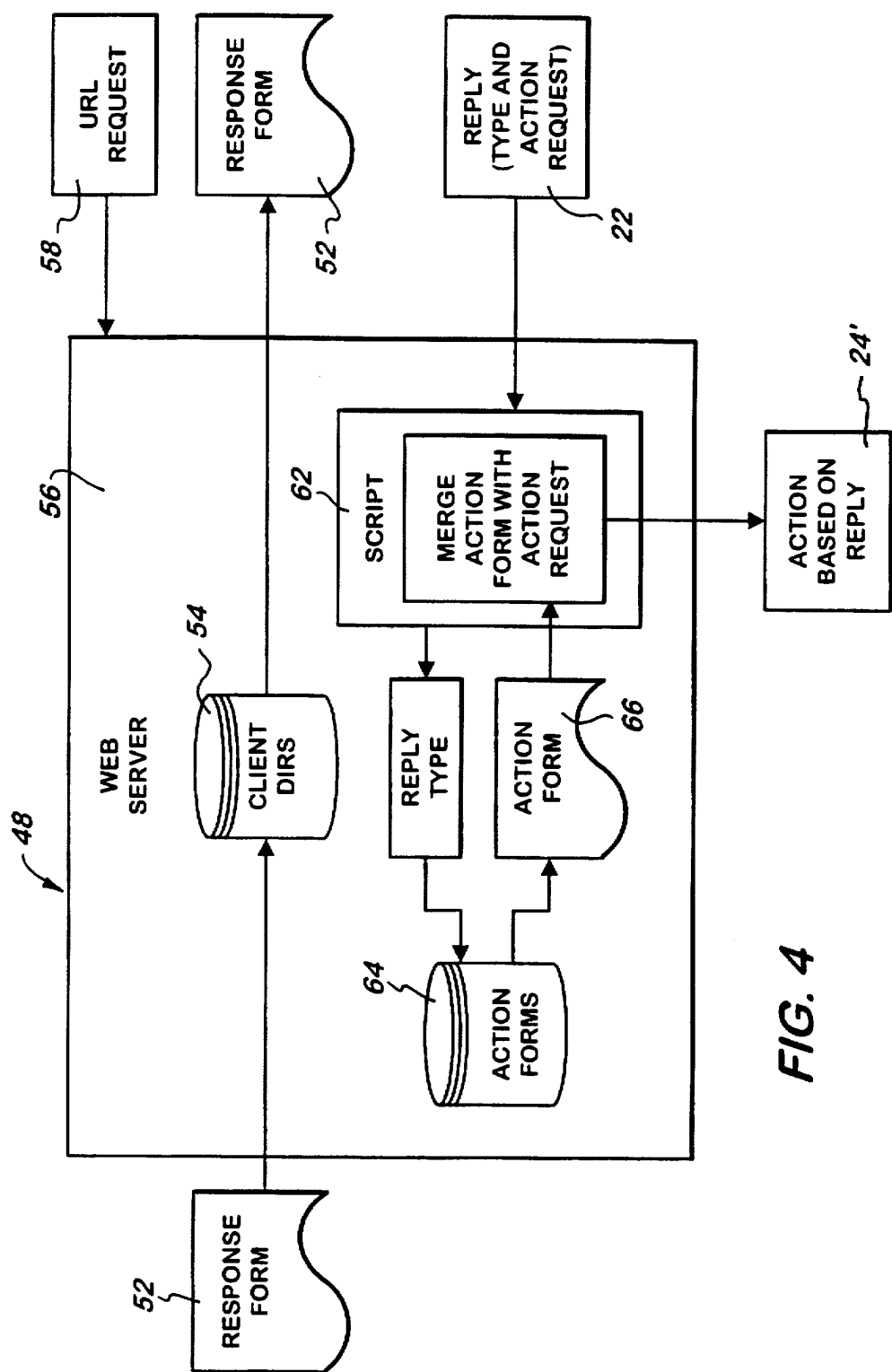


FIG. 4

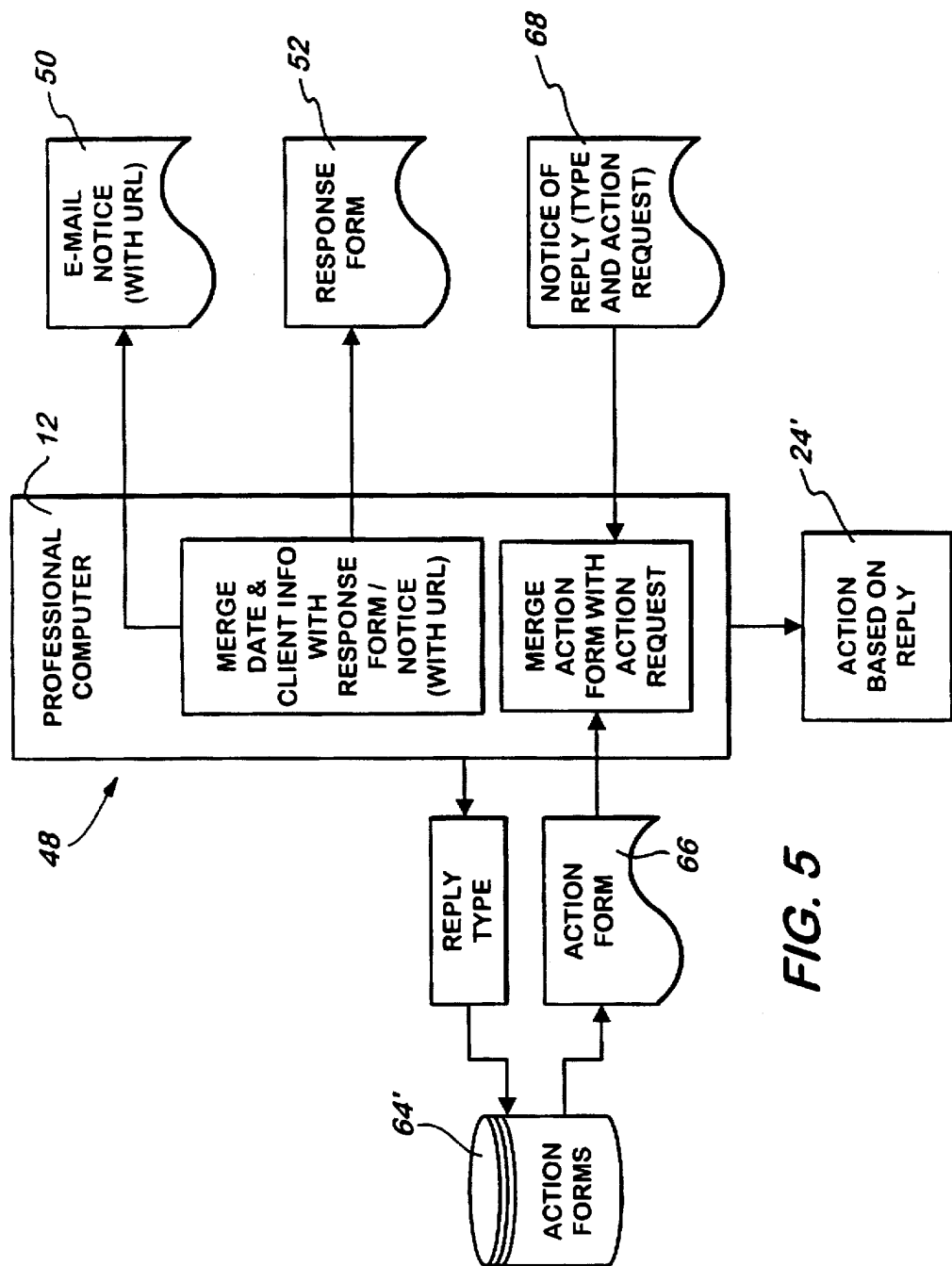


FIG. 5

SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES

FIELD OF THE INVENTION

The invention relates to an automated system for preparing reminders and soliciting replies for client due dates, and more particularly to a device and method which communicates reminders and receives replies over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, often-times an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern commu-

nication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

Preferably, the device also includes software executing on the computer for automatically receiving a reply to the response form from the client through the communication link, for automatically generating a response based on the reply, and for automatically transmitting the response to a third party. The device also preferably includes software executing on the computer for automatically updating the database based on the reply, for automatically generating a confirmation based on the reply, and for transmitting the confirmation to the client through the communication link.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

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FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a response form 16 based on the retrieved client reminder and automatically transfers the response form 16 through an Internet communication link 18 to a client computer 20. The response form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

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Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment 30 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client email address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the response form/client notice 44, and automatically transmits the merged response form/client notice 46 by email through an Internet communication link 18 to a client computer 20. The merged response form/client notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged response form/client notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and response forms databases (not shown) to retrieve client information (not shown) and a response form/client notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the response form/client notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged response form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the response form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the confirmation 28 through the Internet communication link 18 to the client computer 20.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

2. The device of claim 1 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

3. The device of claim 2 further comprising software executing on said computer for automatically updating said database based on the reply.

4. The device of claim 3 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

5. A device for automatically delivering professional services to a client comprising:

a computer;

a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a forms database containing a plurality of response forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a response form;

software executing on said computer for automatically merging the date and the client information with the response form;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

6. The device of claim 5 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

7. The device of claim 6 further comprising software executing on said computer for automatically updating said database based on the reply.

8. The device of claim 7 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

9. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL;

a web server;

software executing on said computer for automatically transmitting the client response form to said web server and for automatically transmitting the notice to the client; and,

software executing on said web server for automatically transmitting the response form to the client when the URL is activated and for automatically receiving a reply to the response form from the client.

10. The device of claim 9 further comprising software executing on said web server for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

11. The device of claim 10 further comprising software executing on said web server for automatically updating said database based on the reply.

12. The device of claim 11 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

13. The device of claim 9 further comprising:

software executing on said web server for automatically generating a notice of reply based on the reply, and for automatically transmitting the notice of reply to said computer; and

software executing on said computer for automatically receiving the notice of reply from said web server.

14. The device of claim 13 further comprising software executing on said computer for automatically generating a response based on the notice of reply, and for automatically transmitting the response to a third party.

15. The device of claim 14 further comprising software executing on said computer for automatically updating said database based on the notice of reply.

16. The device of claim 15 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

17. The device of claim 9 wherein said database comprises a docket database containing a plurality of client reminders, each of the client reminders including a matter identification number and a type of reminder identification, and wherein said software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL comprises:

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a response forms database containing a plurality of response forms;

software executing on said computer for automatically querying said response forms database by the type of reminder identifier to retrieve a response form;

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software executing on said computer for automatically merging the date and the client information with the response form; and,

software executing on said computer for automatically merging the date and the client information with a notice, the notice containing a URL.

18. The device of claim 17 wherein the reply to the response form contains an action type and an action request, and further comprising;

an action forms database containing a plurality of action forms;

software executing on said web server for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

19. The device of claim 18 further comprising software executing on said web server for automatically updating said docket database based on the reply.

20. The device of claim 19 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

21. The device of claim 17 further comprising:

software executing on said web server for automatically generating a notice of reply, the notice of reply containing an action type and an action request, and for automatically transmitting the notice of reply to said computer;

an action forms database containing a plurality of action forms;

software executing on said computer for automatically receiving the notice of reply from said web server, for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

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22. The device of claim 21 further comprising software executing on said computer for automatically updating said docket database based on the notice of reply.

23. The device of claim 22 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

24. A method for automatically delivering professional services to a client comprising the steps of:

providing a computer;

providing a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

querying said database by the values attributed to each client reminder date field to retrieve a client reminder; generating a client response form from the retrieved client reminder;

establishing a communication link between said computer and the Internet;

transmitting said client response form to the client through said communication link; and,

receiving a reply to the response form from the client through said communication link.

25. The method of claim 24 further comprising the steps of:

generating a response based on the reply; and

transmitting the response to a third party.

26. The method of claim 25 further comprising the step of updating said database based on the reply.

27. The method of claim 26 further comprising the steps of:

generating a confirmation based on the reply; and

transmitting the confirmation to the client through said communication link.

* * * * *



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Whitmyer, Jr.

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(45) **Date of Patent:** ***Jan. 30, 2001**

(54) **SYSTEM FOR DELIVERING
PROFESSIONAL SERVICES OVER THE
INTERNET**

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(*) Notice: Under 35 U.S.C. 154(b), the term of this
patent shall be extended for 0 days.

This patent is subject to a terminal dis-
claimer.

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(22) Filed: **Dec. 2, 1999**

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1999, now Pat. No. 6,049,801, which is a continuation-in-
part of application No. 08/726,999, filed on Oct. 7, 1996,
now Pat. No. 5,895,468.

(51) **Int. Cl.**⁷ **G06F 17/30**

(52) **U.S. Cl.** **707/10; 707/501; 707/513;**
705/26; 709/217; 709/218

(58) **Field of Search** 707/1-3, 10, 104,
707/8, 9, 200-203, 501, 513; 709/201-203,
217-219; 705/26

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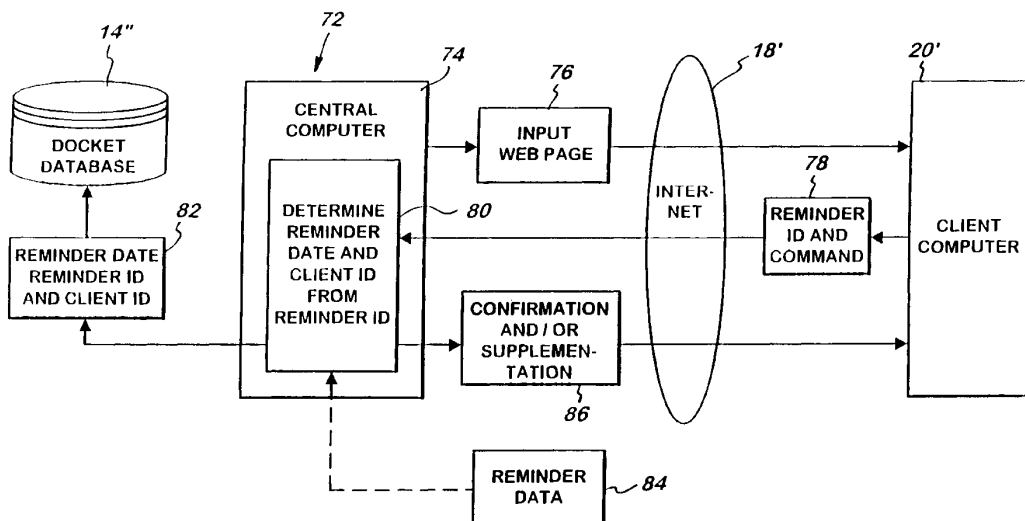
Primary Examiner—Hosain T. Alam

(74) *Attorney, Agent, or Firm*—St. Onge Steward Johnston
& Reens LLC

(57) **ABSTRACT**

A system is provided to deliver professional services over
the Internet. The system includes a computer, a database of
client reminders, and software for automatically querying the
database by values attributed to date fields to select
reminders. The software also automatically generates a form
based on the retrieved client reminder and transmits it to the
client over the Internet. The system may include or comprise
a web site.

11 Claims, 7 Drawing Sheets



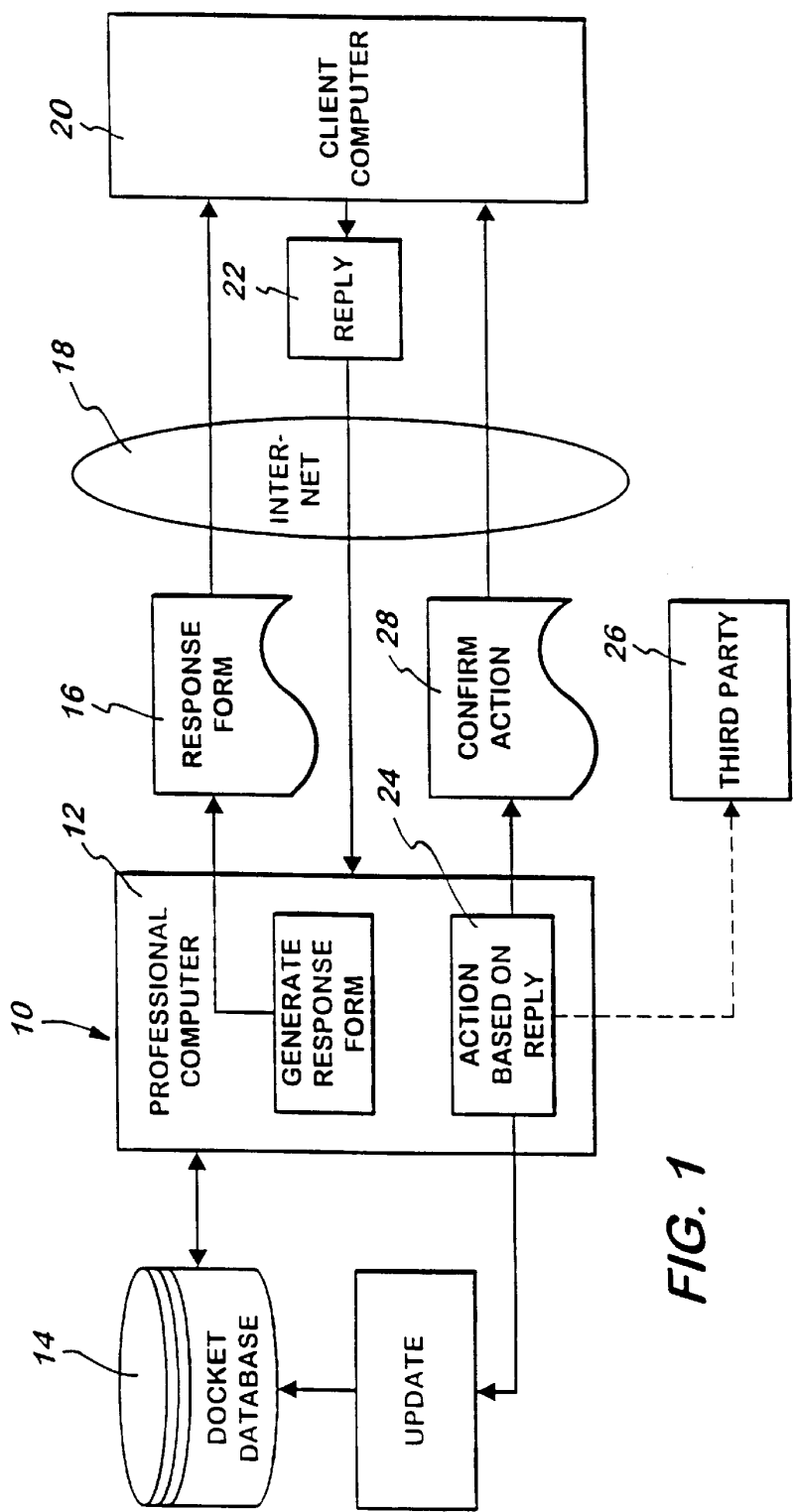
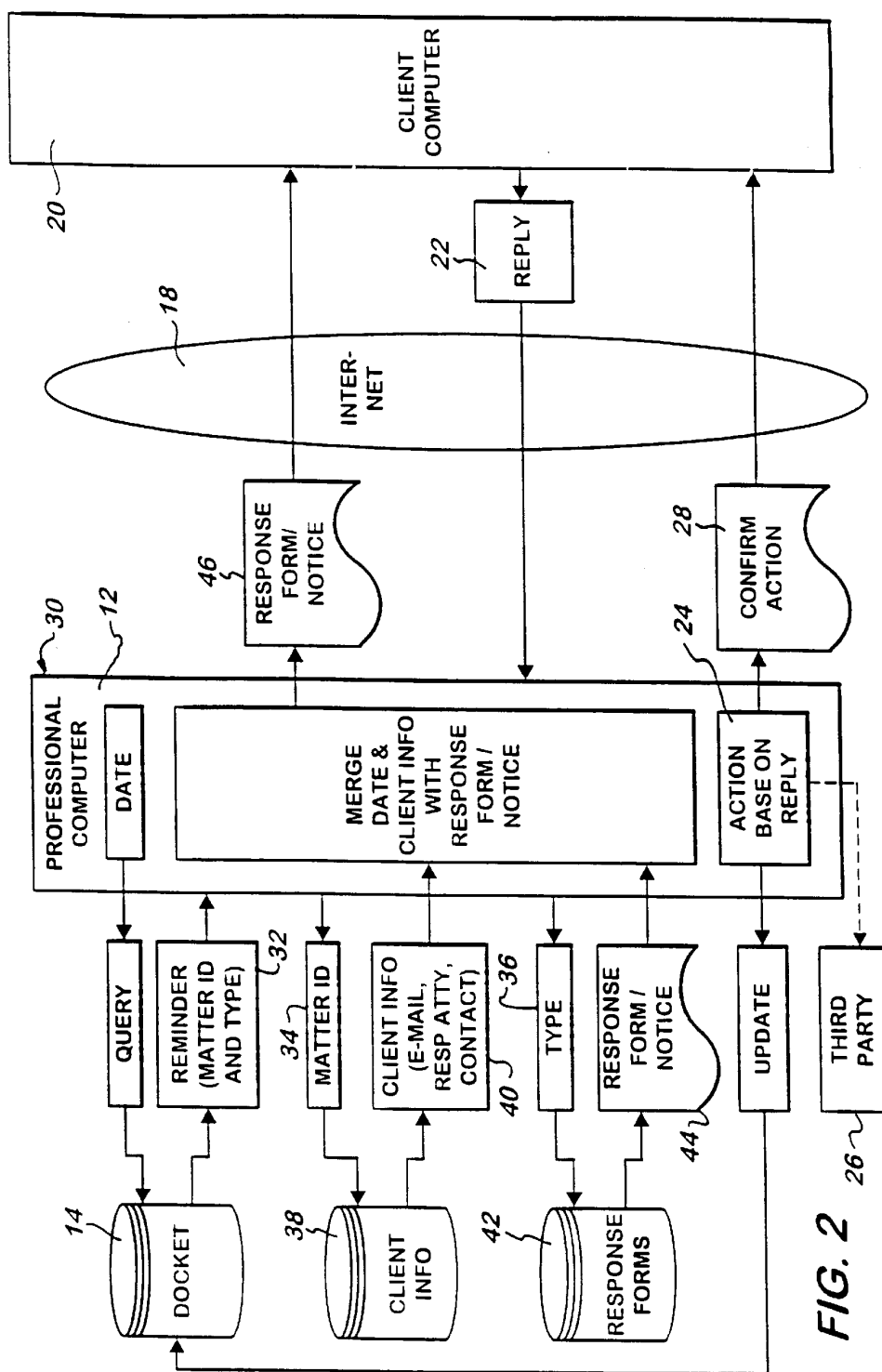
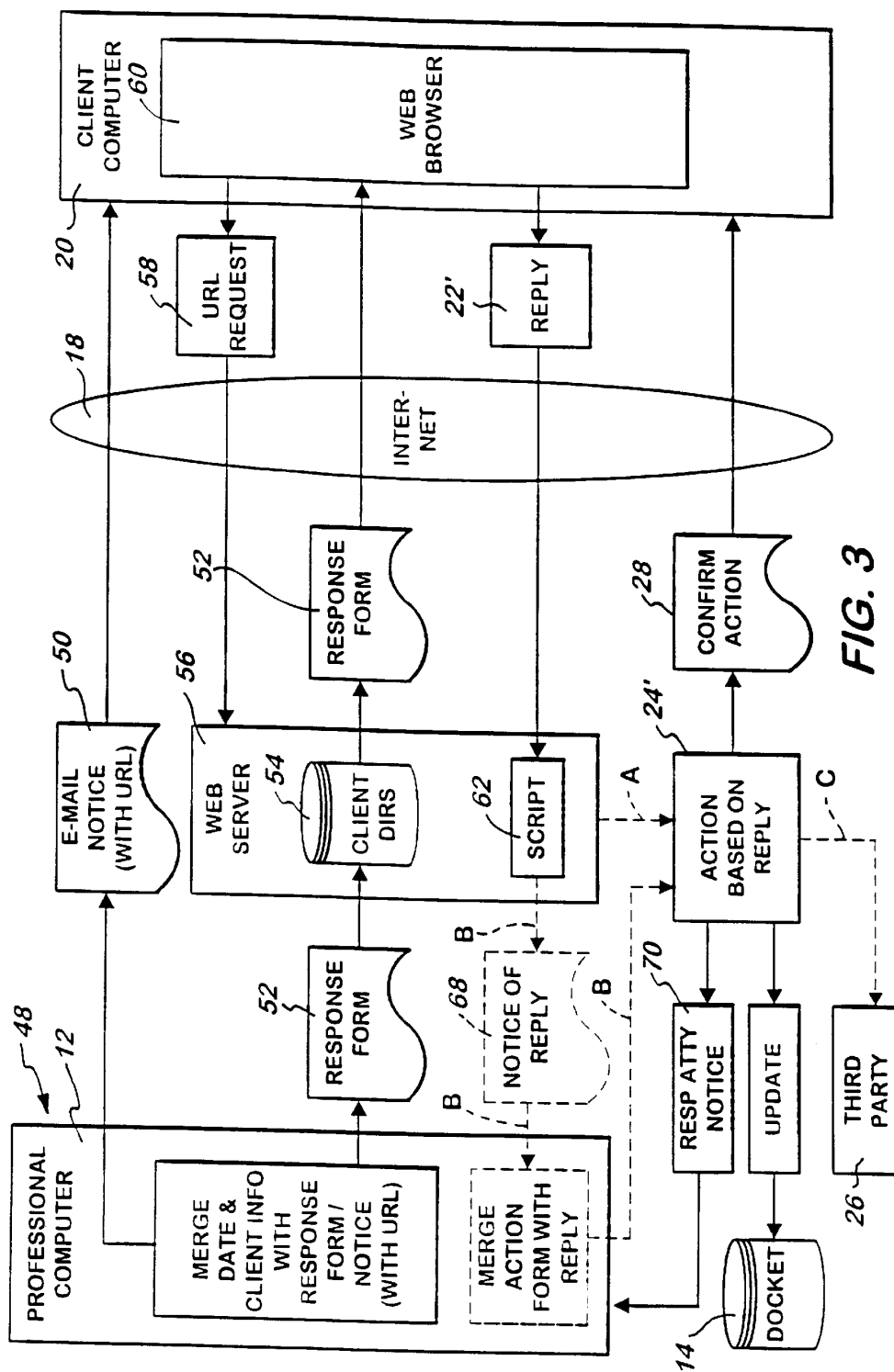


FIG. 1





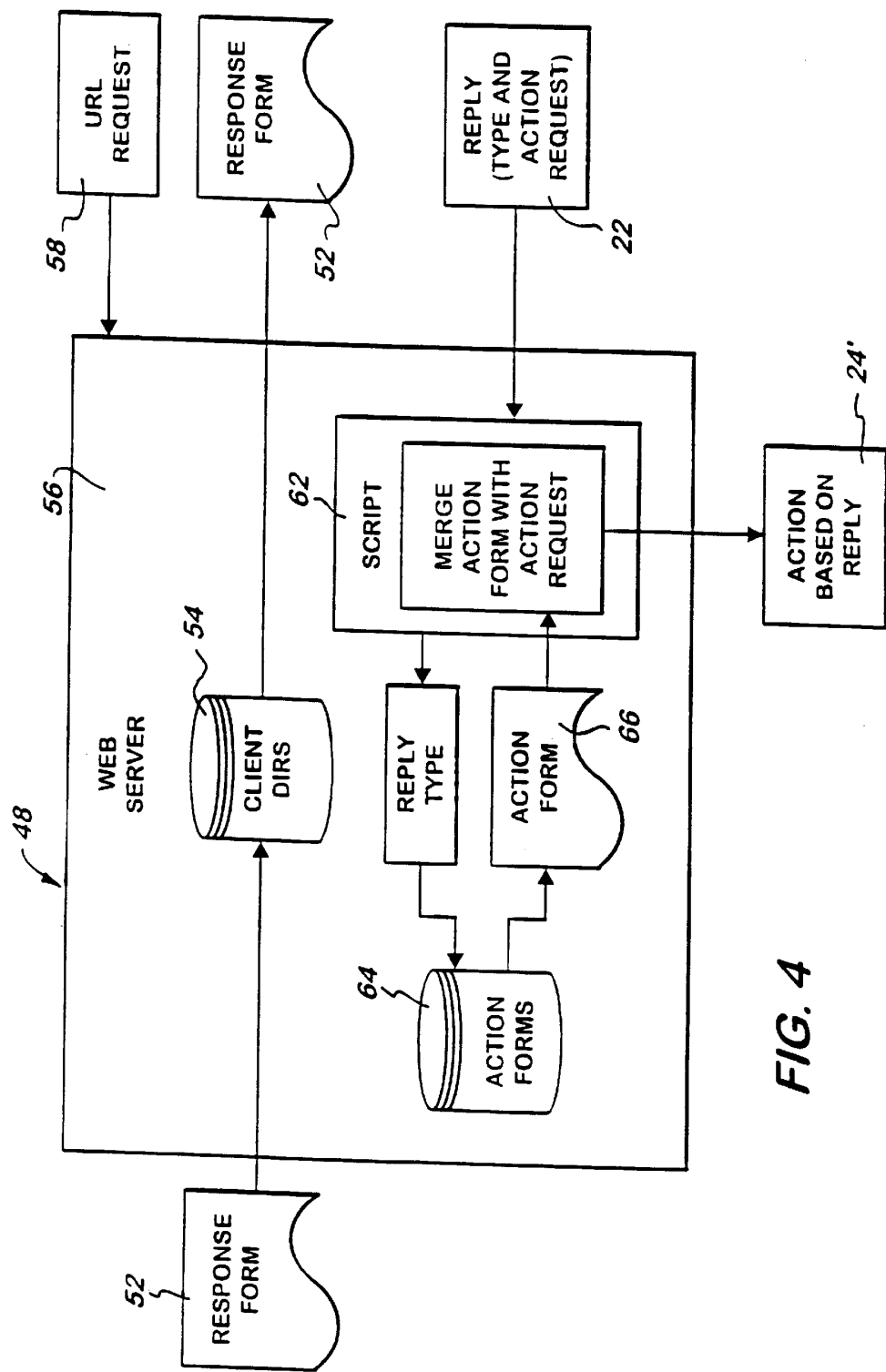


FIG. 4

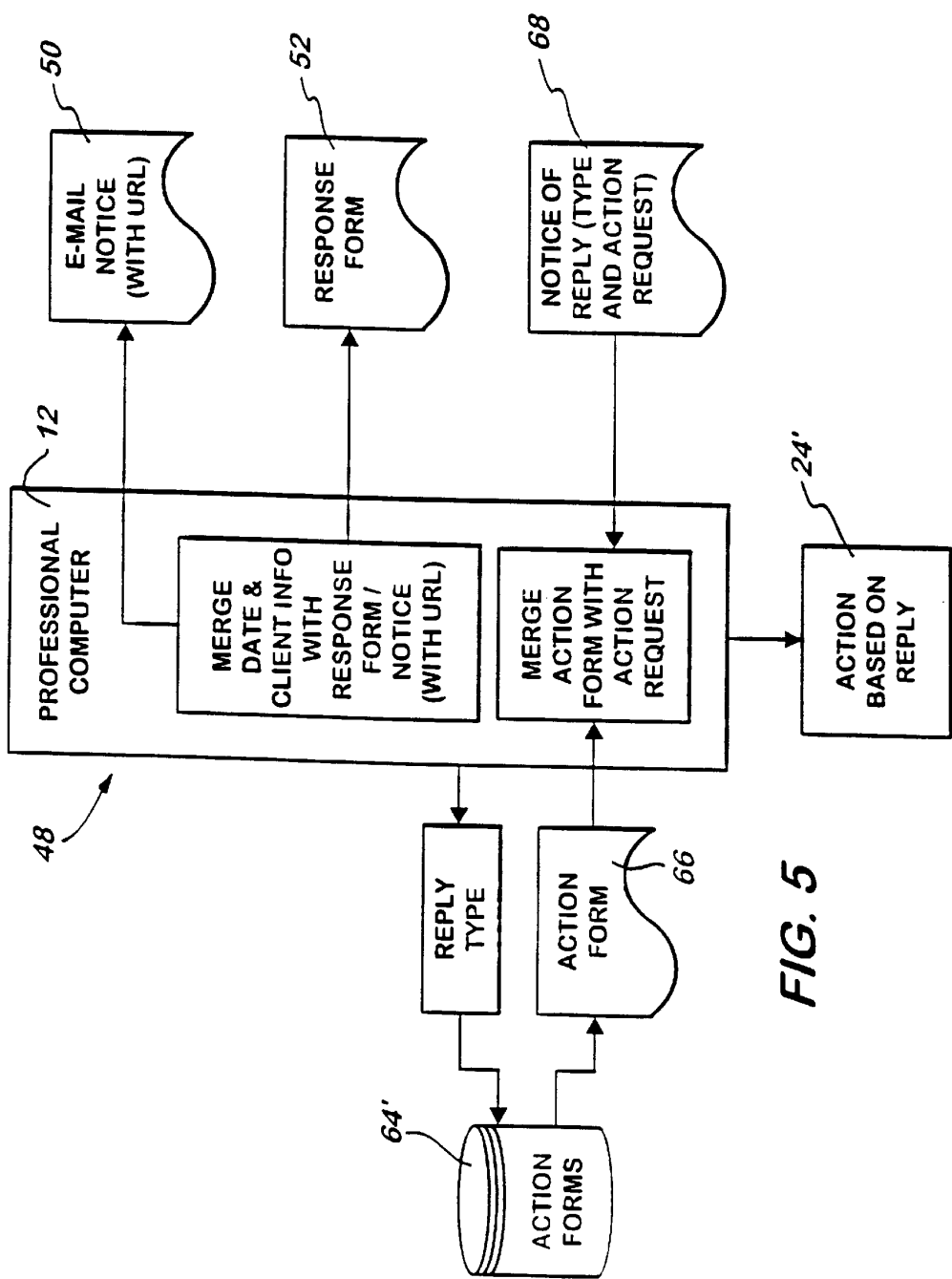


FIG. 5

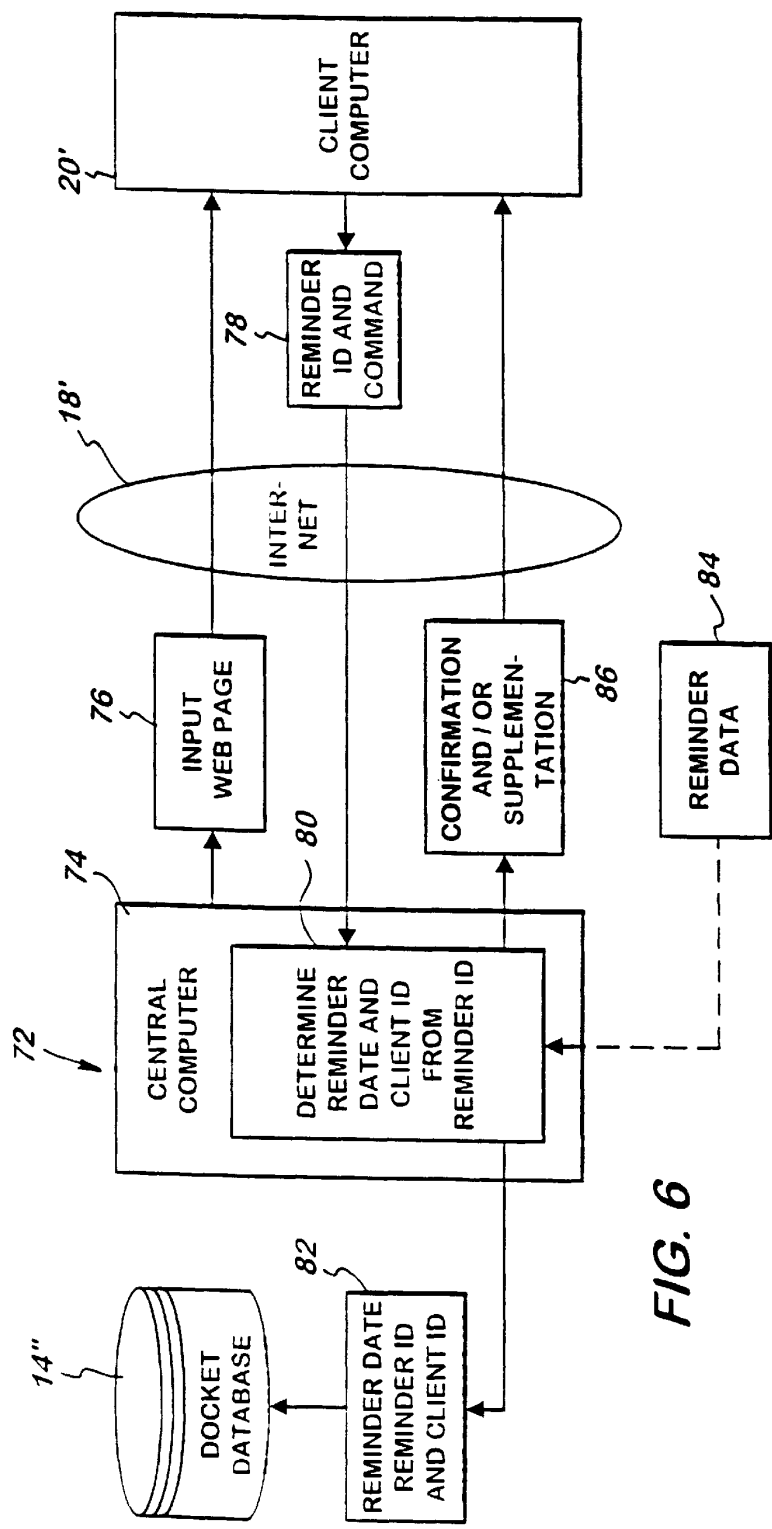
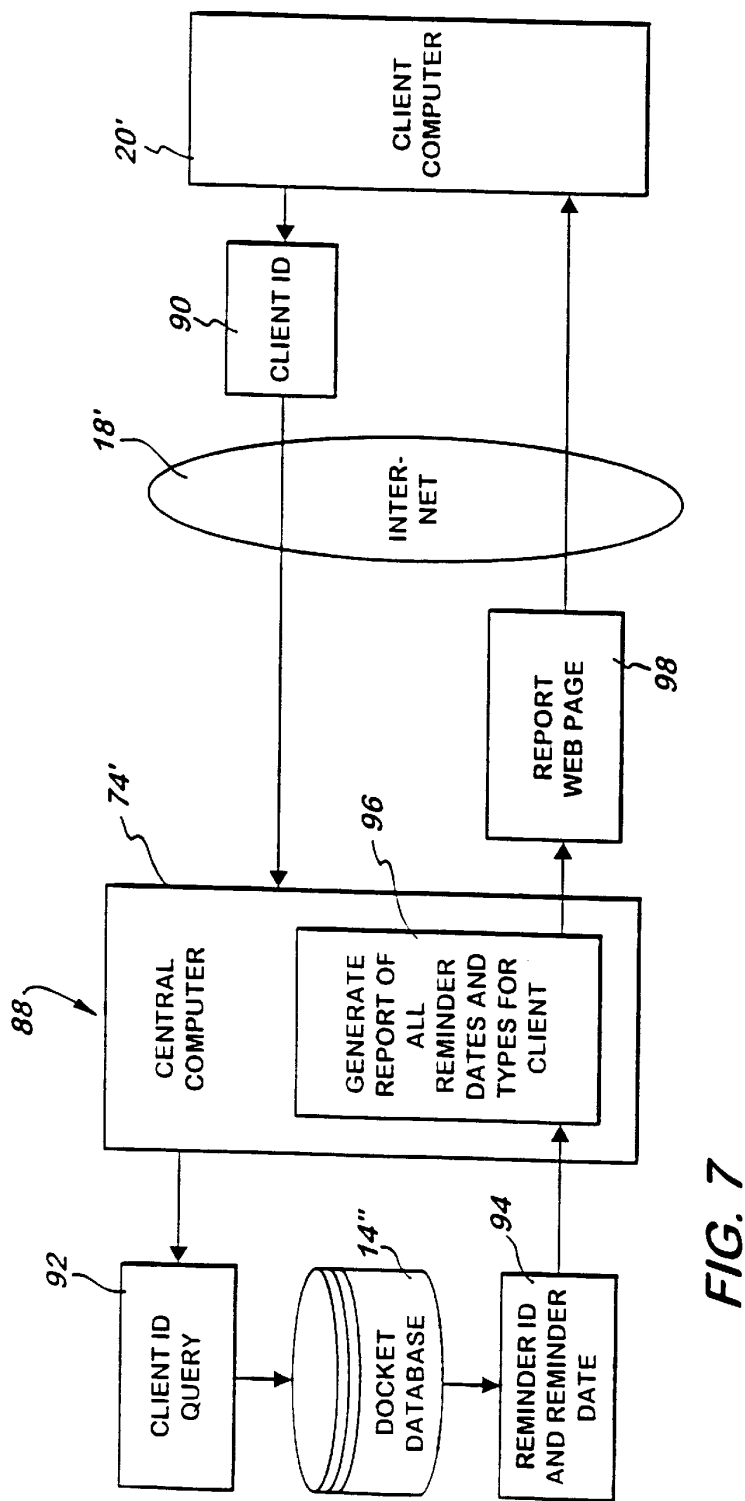


FIG. 6



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SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET

This application is a continuation of U.S. patent application Ser. No. 09/237,521 filed Jan. 27, 1999, now U.S. Pat. No. 6,049,801 which is itself a continuation-in-part of U.S. patent application Ser. No. 08/726,999, filed Oct. 7, 1996, now U.S. Pat. No. 5,895,468 issued Apr. 20, 1999.

FIELD OF THE INVENTION

The invention relates to a system for delivering professional services over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication

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using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern communication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

In one currently prevailing business model, the professional firm or service bureau maintains a docket database on behalf of a client or clients. A disadvantage of this approach is that the client does not have direct access over his/its data.

In another current approach, typically used by large corporations, the client has direct access and control over his/its data, but also must take responsibility for its security and accuracy, by maintaining hardware and software, and by proofing and reviewing the data as well as changes, e.g. in dates, fees and the like due to changes in the law of foreign jurisdictions.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client. An automated system which provides clients with control over, but not responsibility for the data is also desired.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

Still yet another object of the invention is to provide a web site permitting clients direct access to the docket database used to automate providing of professional services on their behalf.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a form based on the retrieved client reminder, and for auto-

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matically transmitting the form to the client through a communication link between the computer and the Internet.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 6 is a block diagram of a web site permitting direct client entry of reminders to the automated system of FIG. 1.

FIG. 7 is a block diagram of a web site enabling direct client reporting of reminders on the automated system of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a form 16 based on the retrieved client reminder and automatically transfers the form 16 through an Internet communication link 18 to a client computer 20. The form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs

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some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client e-mail address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the form/notice 44, and automatically transmits the merged form/notice 46 by email through an Internet communication link 18 to a client computer 20. The merged form/notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged form/notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and

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performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and forms databases (not shown) to retrieve client information (not shown) and a form/notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the form/notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the

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professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26. If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the

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confirmation **28** through the Internet communication link **18** to the client computer **20**.

Referring now to FIG. 6, a web site **72** is shown which permits direct client entry of reminders to the automated system for delivering professional services. Web site **72** includes a central computer **74** and a database **14"** which is accessible by central computer **74**. Software executing on central computer **74** generates an input web page **76** which can be retrieved by a client computer **20'**, preferably but not necessarily through the Internet **18'**. The client enters a reminder identifier, a command for management of the reminder, and if desired, a request to perform a professional service, and then transfers this information **78** back to central computer **74**, again preferably through the Internet **18'**. The reminder identifier is indicative of a particular matter for which the professional is responsible. For example, in the case of an intellectual property attorney, the reminder identifier may include an intellectual property identifier, which may be a patent number or a trademark number. The command for management of the reminder may be, for example, a command to add data to the reminder, delete data in the reminder, or modify data in the reminder. The request to perform a professional service may include, in the intellectual property attorney example, a request for payment of an annuity or maintenance fee, or a request to file an intellectual property application.

The information **78** supplied by the client is received by central computer **74**, which has software **80** executing thereon for determining a reminder date and client identifier from the reminder identifier. The reminder date, reminder identifier and client identifier are then stored (indicated as **82**) on docket database **14"**, thereby adding to, deleting from, or modifying the existing reminders stored on database **14"**. Preferably, web site **72** includes a data source **84** which is used by software **80** to supplement and confirm the reminder identifier entered by the client before updating docket database **14"**. Data source **84** may include, for example, a source of intellectual property data, including such data as the filing date and/or registration date of the intellectual property identifier, for confirming and/or supplementing the intellectual property identifier. Data source **84** may also include information such as the cost of the professional service requested. Preferably, software **80** generates a message **86** confirming and/or supplementing the reminder identifier entered by the client and transmits message **86** to client computer **20'** through the Internet **18'**.

Referring now to FIG. 7, a web site **88** is shown which enables direct client reporting of reminders on the automated system for delivering professional services. A client identifier **90** is entered by a client and transferred from client computer **20'** to central computer **74'** preferably, but not necessarily, through the Internet **18'**. Central computer **74'** uses client identifier **90** to query (shown as **92**) docket database **14"**, which returns to central computer **74'** all reminder identifiers and reminder dates **94** associated with client identifier **90**. Software **96** executing on central computer **74'** generates a report of all reminder dates and reminder types returned by database **14"**, generates a report web page **98**, and transfers report web page **98** to client computer **20'** preferably through the Internet **18'**. The report generated by software **96** may be organized by client identifier only, or may be organized by client identifier and then by client reference if such a client reference is sent at **90** with client identifier.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements

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or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

- a computer;
- a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;
- software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;
- software executing on said computer for automatically generating a form based on the retrieved client reminder;
- a communication link between said computer and the Internet; and
- software executing on said computer for automatically transmitting the form through said communication link.

2. The device of claim 1 wherein the form is an email message.

3. The device of claim 2 wherein the form is a web page.

4. A device for automatically delivering professional services comprising:

- a computer;
- a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;
- software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;
- a client information database containing a plurality of client information;
- software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;
- a forms database containing a plurality of forms;
- software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a form;
- software executing on said computer for automatically merging the date and the client information with the form;
- a communication link between said computer and the Internet; and
- software executing on said computer for automatically transmitting the form through said communication link.

5. The device of claim 4 where in the form is an email message.

6. The device of claim 4 wherein the form is a web page.

7. A device for automatically delivering professional services comprising:

- a computer;
- a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;
- software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

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software executing on said computer for automatically
generating a form and a notice based on the retrieved
client reminder, the notice containing a URL;
a web server;
software executing on said computer for automatically 5
transmitting the form to said web server and for auto-
matically transmitting the notice; and,
software executing on said web server for automatically
transmitting the form when the URL is activated. 10
8. The device of claim 7 when the notice is an email
message.
9. A method for automatically delivering professional
services comprising the steps of:
providing a computer;

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providing a database containing a plurality of client
reminders, each of the client reminders including a date
field having a value attributed thereto;
querying said database by the values attributed to each
client reminder date field to retrieve a client reminder;
generating a form from the retrieved client reminder;
establishing a communication link between said computer
and the Internet; and
transmitting said form through said communication link.
10. The method of claim 9 where in the generating step
further comprises generating an email message.
11. The method of claim 9 wherein the generating step
further comprises generating a web page.

* * * * *



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(12) **United States Patent**
Seidman et al.

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(45) **Date of Patent:** ***Mar. 12, 2002**

(54) **METHOD OF TREATING IBD/CROHN'S DISEASE AND RELATED CONDITIONS WHEREIN DRUG METABOLITE LEVELS IN HOST BLOOD CELLS DETERMINE SUBSEQUENT DOSAGE**

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(57) **ABSTRACT**

The present invention provides a method of optimizing therapeutic efficacy and reducing toxicity associated with 6-mercaptopurine drug treatment of an immune-mediated gastrointestinal disorder such as inflammatory bowel disease. The method of the invention includes the step of determining the level of one or more 6-mercaptopurine metabolites in the patient having an immune-mediated gastrointestinal disorder.

54 Claims, 3 Drawing Sheets

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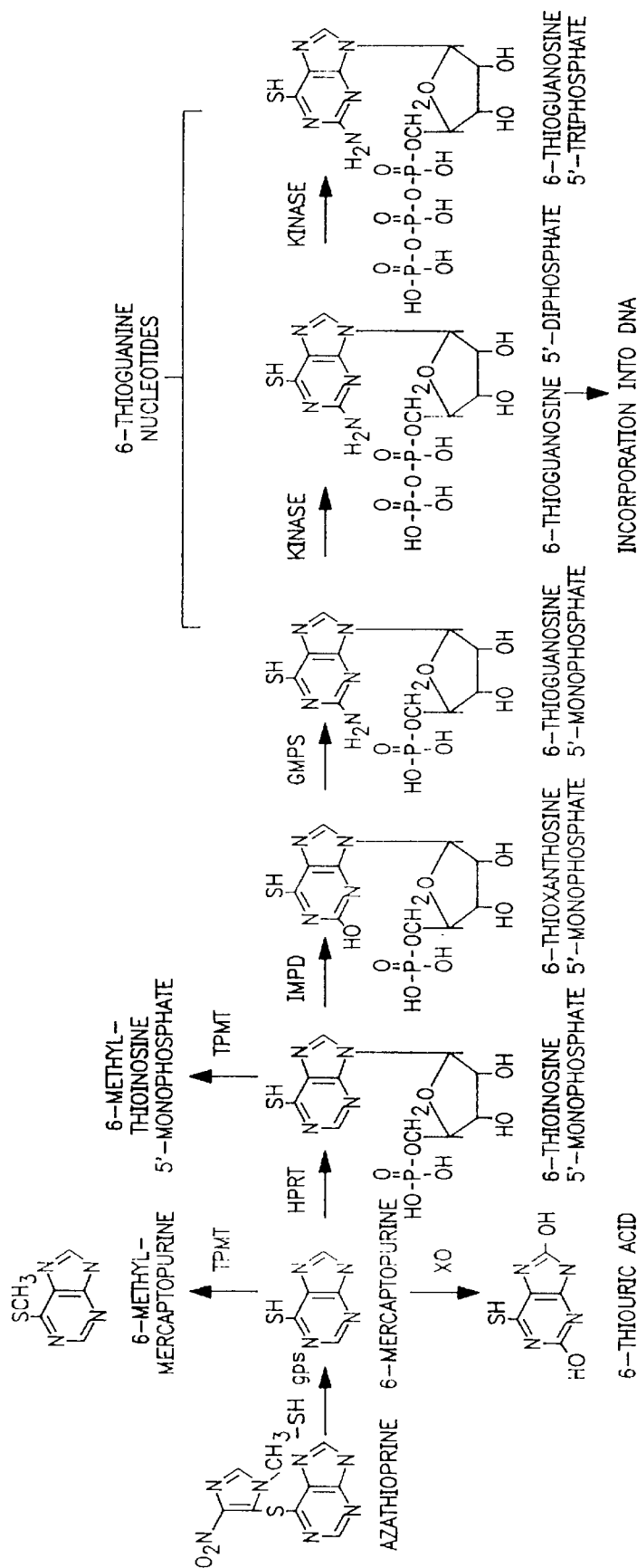
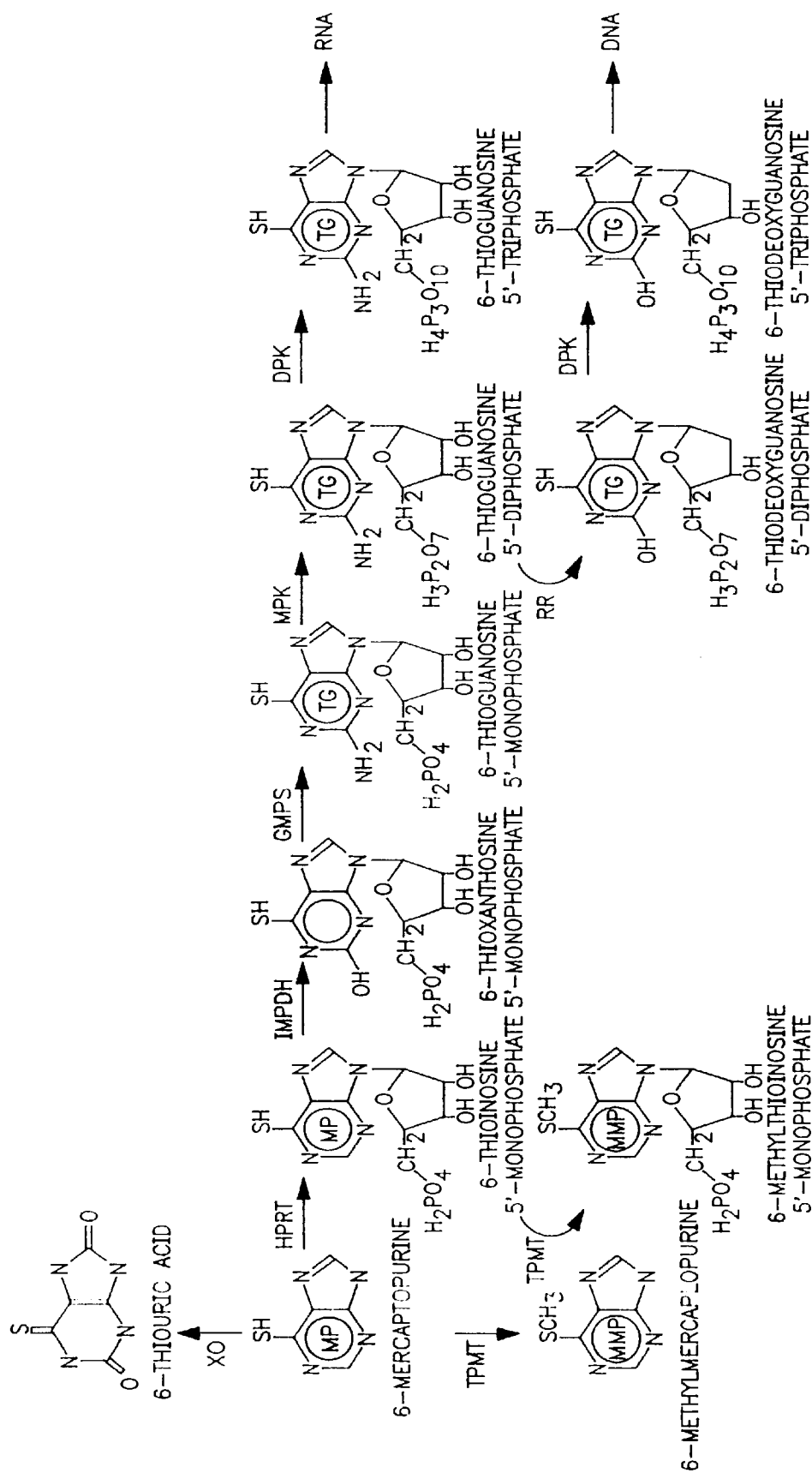


FIG. 1



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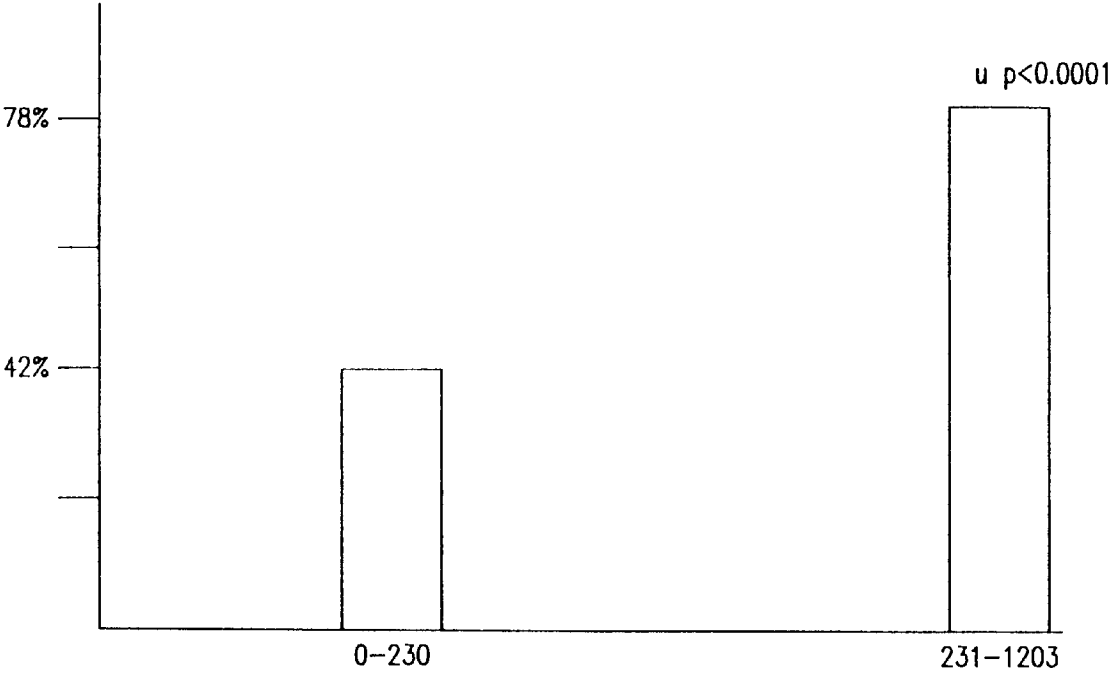


FIG. 3

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METHOD OF TREATING IBD/CROHN'S DISEASE AND RELATED CONDITIONS WHEREIN DRUG METABOLITE LEVELS IN HOST BLOOD CELLS DETERMINE SUBSEQUENT DOSAGE

This application claims the benefit of priority of provisional application Ser. No. 60/101,714, filed Sep. 24, 1998, which is incorporated herein by reference now abandoned.

BACKGROUND OF THE INVENTION

The present invention relates generally to autoimmunity and immune-mediated gastrointestinal disorders such as inflammatory bowel disease and more specifically to methods for optimizing treatment of immune-mediated gastrointestinal disorders.

BACKGROUND INFORMATION

Immune-mediated gastrointestinal disorders encompass a wide range of debilitating gastrointestinal diseases of various etiologies. One such immune-mediated gastrointestinal disorder, inflammatory bowel disease (IBD), is the collective term used to describe two gastrointestinal disorders of unknown etiology: Crohn's disease (CD) and ulcerative colitis (UC). The course and prognosis of IBD, which occurs world-wide and is reported to afflict as many as two million people, varies widely. Onset of IBD is predominantly in young adulthood with diarrhea, abdominal pain, and fever the three most common presenting symptoms. The diarrhea may range from mild to severe and in ulcerative colitis often is accompanied by bleeding. Anemia and weight loss are additional common signs of IBD. Ten percent to fifteen percent of all patients with IBD will require surgery over a ten year period. In addition, patients with IBD are at increased risk for the development of intestinal cancer. Reports of an increasing occurrence of psychological problems, including anxiety and depression, are perhaps not surprising symptoms of what is often a debilitating disease that strikes people in the prime of life.

6-Mercaptopurine (6-MP) and azathioprine (AZA), a pro-drug that is non-enzymatically converted to 6-mercaptopurine (6-MP), are 6-MP drugs that can be used as an effective treatment for inflammatory bowel diseases such as Crohn's disease and ulcerative colitis (Kirschner *Gastroenterology* 115:813-821 (1998)). 6-MP can be enzymatically converted to various 6-MP metabolites, including 6-methyl-mercaptopurine (6-MMP) and 6-thioguanine (6-TG) and their nucleotides. 6-TG nucleotides are thought to be the active metabolite in mediating many of the effects of 6-MP drug treatment.

Thiopurine methyltransferase (TPMT) is a cytoplasmic enzyme that preferentially catalyzes the S-methylation of 6-MP and 6-TG to form S-methylated metabolites such as 6-MMP and 6-methylthioguanine (6-MTG), respectively. TPMT exhibits genetic polymorphism, with 89% of Caucasians and African Americans having high activity, 11% intermediate activity and 1 in 300 TPMT deficient. Clinical studies with AZA and 6-MP have shown an inverse relationship between TPMT activity and 6-TGN accumulation. Patients who less efficiently methylate these thiopurines have more extensive conversion to 6-TGN, which can lead to potentially fatal hematopoietic toxicity. Therefore, patients who have less active TPMT can be more susceptible to toxic side effects of 6-MP therapy.

Although drugs such as 6-MP and AZA have been used for treating IBD, non-responsiveness and drug toxicity

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unfortunately complicate treatment in some patients. Complications associated with 6-MP drug treatment include allergic reactions, neoplasia, opportunistic infections, hepatitis, bone marrow suppression, and pancreatitis. Therefore, many physicians are reluctant to treat patients with AZA because of its potential side effects, especially infection and neoplasia.

Thus, there exists a need to develop methods to optimize the dose of 6-mercaptopurine drugs and assess biotransformation in individual patients to optimize the therapeutic efficacy of 6-mercaptopurine drugs while minimizing toxic side effects. The present invention satisfies this need and provides related advantages as well.

SUMMARY OF THE INVENTION

The present invention provides a method of optimizing therapeutic efficacy of 6-mercaptopurine drug treatment of an immune-mediated gastrointestinal disorder. The method includes the steps of administering a 6-mercaptopurine drug to a subject having an immune-mediated gastrointestinal disorder; and determining a level of 6-thioguanine in the subject having the immune-mediated gastrointestinal disorder, where a level of 6-thioguanine less than a level corresponding to about 230 pmol per 8×10^8 red blood cells indicates a need to increase the amount of 6-mercaptopurine drug subsequently administered to the subject and where a level of 6-thioguanine greater than a level corresponding to about 400 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of 6-mercaptopurine drug subsequently administered to the subject. The methods are directed to treating immune-mediated gastrointestinal disorders, including inflammatory bowel diseases (IBD) such as Crohn's disease and ulcerative colitis, lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease. In a method of optimizing therapeutic efficacy of 6-mercaptopurine treatment of IBD, the subject having IBD can be, for example, a pediatric subject. The level of 6-thioguanine can be determined, for example, in red blood cells using high pressure liquid chromatography.

The present invention also provides a method of reducing toxicity associated with 6-mercaptopurine drug treatment of an immune-mediated gastrointestinal disorder. The method of reducing toxicity associated with an immune-mediated gastrointestinal disorder includes the steps of administering a 6-mercaptopurine drug to a subject having the immune-mediated gastrointestinal disorder; and determining a level of a 6-mercaptopurine metabolite in the subject having the immune-mediated gastrointestinal disorder, where a level of the 6-mercaptopurine metabolite greater than a predetermined toxic level of the 6-mercaptopurine metabolite indicates a need to decrease the amount of 6-mercaptopurine drug subsequently administered to the subject, thereby reducing toxicity associated with 6-mercaptopurine drug treatment of the immune-mediated gastrointestinal disorder. In a method of the invention, the 6-mercaptopurine metabolite can be, for example, 6-thioguanine and the predetermined toxic level of 6-thioguanine can correspond, for example, to a level of about 400 pmol per 8×10^8 red blood cells. Where the elevated 6-mercaptopurine metabolite is 6-thioguanine, the toxicity associated with 6-mercaptopurine treatment can be, for example, hematologic toxicity. The 6-mercaptopurine metabolite also can be a metabolite such as 6-methyl-mercaptopurine and the predetermined toxic level of 6-methyl-mercaptopurine can correspond, for example, to a level of about 7000 pmol per

8x10⁸ red blood cells. Where the elevated 6-mercaptopurine metabolite is 6-methyl-mercaptopurine, the toxicity associated with 6-mercaptopurine treatment can be, for example, hepatic toxicity.

Further provided by the invention is a method of optimizing therapeutic efficacy and reducing toxicity associated with 6-mercaptopurine drug treatment of an immune-mediated gastrointestinal disorder. The method includes the steps of administering a 6-mercaptopurine drug to a subject having an immune-mediated gastrointestinal disorder; determining a level of 6-thioguanine in the subject having the immune-mediated gastrointestinal disorder; and determining a level of 6-methyl-mercaptopurine in the subject having the immune-mediated gastrointestinal disorder, where a level of 6-thioguanine less than a predetermined minimal therapeutic level indicates a need to increase the amount of 6-mercaptopurine drug subsequently administered to the subject, thereby increasing therapeutic efficacy; where a level of 6-thioguanine greater than a predetermined toxic level of 6-thioguanine indicates a need to decrease the amount of 6-mercaptopurine drug subsequently administered to the subject, thereby reducing toxicity associated with 6-mercaptopurine treatment of the immune-mediated gastrointestinal disorder; and where a level of 6-methyl-mercaptopurine greater than a predetermined toxic level of 6-methyl-mercaptopurine indicates a need to decrease the amount of 6-mercaptopurine drug subsequently administered to the subject, thereby reducing toxicity associated with 6-mercaptopurine treatment of the immune-mediated gastrointestinal disorder.

In such a method of optimizing therapeutic efficacy and reducing toxicity associated with 6-mercaptopurine drug treatment of an immune-mediated gastrointestinal disorder, the predetermined minimal therapeutic level of 6-thioguanine can be, for example, a level corresponding to about 230 pmol per 8x10⁸ red blood cells; the predetermined toxic level of 6-thioguanine can be, for example, a level corresponding to about 400 pmol per 8x10⁸ red blood cells; and the predetermined toxic level of 6-methyl-mercaptopurine can be, for example, a level corresponding to about 7000 pmol per 8x10⁸ red blood cells. The level of 6-thioguanine and 6-methyl-mercaptopurine each can be conveniently determined, for example, in red blood cells using high pressure liquid chromatography. The invention further provides methods to optimize the therapeutic efficacy of 6-mercaptopurine drug treatment of a non-IBD autoimmune disease.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows mercaptopurine metabolism and the structures of 6-mercaptopurine (6-MP) metabolites. The initial metabolism of 6-MP is catalyzed by thiopurine methyltransferase (TPMT), xanthine oxidase (XO), and hypoxanthine phosphoribosyltransferase (HPRT). Further metabolism of the thionucleotide is catalyzed by inosine monophosphate dehydrogenase (IMPD) and guanosine monophosphate synthetase (GMPS). The breakdown of azathioprine to 6-mercaptopurine is nonenzymatic.

FIG. 2 shows 6-mercaptopurine (6-MP) metabolism and the 6-MP metabolites that are measured as 6-MP, 6-thioguanine (6-TG) and 6-methyl-mercaptopurine (6-MMP) (indicated as “MP,” “TG” and “MMP” inside the base). 6-TG mono-phosphate is converted to the di- and tri-phosphate by monophosphate kinase (MPK) and diphosphate kinase (DPK), respectively. The ribonucleoside diphosphate is converted to deoxyribonucleoside diphosphate by ribonucleotide reductase (RR).

FIG. 3 shows ranges of 6-thioguanine in IBD patients treated with a 6-MP drug.

DETAILED DESCRIPTION OF THE INVENTION

The present invention provides a method of optimizing therapeutic efficacy of 6-mercaptopurine (6-MP) drug treatment of an immune-mediated gastrointestinal disorder. The method includes the steps of administering a 6-MP drug to a subject having an immune-mediated gastrointestinal disorder; and determining a level of 6-thioguanine (6-TG) in the subject having the immune-mediated gastrointestinal disorder, where a level of 6-TG less than a level corresponding to about 230 pmol per 8x10⁸ red blood cells indicates a need to increase the amount of 6-MP drug subsequently administered to the subject and where a level of 6-TG greater than a level corresponding to about 400 pmol per 8x10⁸ red blood cells indicates a need to decrease the amount of 6-MP drug subsequently administered to the subject. The methods are directed to treating immune-mediated gastrointestinal disorders, including inflammatory bowel diseases (IBD) such as Crohn’s disease and ulcerative colitis, lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease. In a method of optimizing therapeutic efficacy of 6-MP treatment of IBD, the subject having IBD can be, for example, a pediatric subject. The level of 6-TG can be determined, for example, in red blood cells using high pressure liquid chromatography (HPLC).

The invention provides methods of optimizing therapeutic efficacy of 6-MP drug treatment of an immune-mediated gastrointestinal disorder. The methods of the invention are particularly useful for treating an immune-mediated gastrointestinal disorder such as IBD, including Crohn’s disease and ulcerative colitis and subtypes thereof. The methods of the invention allow the clinician to provide an individually optimized dosage of a 6-MP drug so as to achieve a target level of a 6-MP metabolite in a particular patient having an immune-mediated gastrointestinal disorder, thereby optimizing the effectiveness of 6-MP drug therapy in the patient. The methods of the invention for optimizing therapeutic efficacy of 6-MP drug treatment involve determining the level of 6-TG in a patient having an immune-mediated gastrointestinal disorder. As disclosed herein, the level of 6-TG measured in a patient treated with a 6-MP drug was an indicator of the effectiveness of drug treatment. A level of at least 230 pmol 6-TG/8x10⁸ red blood cells (RBC) was found in responders to drug therapy (see Examples I and II). These results indicate that determining the level of 6-TG can be used to assess whether a patient has a level of 6-TG that is sufficient to alleviate symptoms of an immune-mediated gastrointestinal disorder such as IBD, thus optimizing therapeutic efficacy.

As used herein, the term “6-mercaptopurine drug” or “6-MP drug” refers to any drug that can be metabolized to an active 6-mercaptopurine metabolite that has therapeutic efficacy such as 6-TG. Exemplary 6-mercaptopurine drugs as defined herein include 6-mercaptopurine (6-MP) and azathioprine (AZA). As illustrated in FIG. 1, both of 6-MP and AZA can be metabolized to 6-mercaptopurine metabolites such as the exemplary 6-mercaptopurine metabolites shown in FIG. 1, including 6-thioguanine (6-TG), 6-methyl-mercaptopurine (6-MMP) and 6-thiouric acid. (Lennard, *Eur. J. Clin. Pharmacol.* 43:329–339 (1992)).

Other 6-MP drugs include, for example, 6-methylmercaptopurine riboside and 6-TG (Loo et al., *Clin.*

Pharmacol. Ther. 9:180–194 (1968); O'Dwyer et al., *J. Natl. Cancer Inst.* 83:1235–1240 (1991); Erb et al., *Cancer Chemother. Pharmacol.* 42:266–272 (1998); Lancaster et al., *Br. J. Haematol.* 102:439–443 (1998); Ingle et al., *Am. J. Clin. Oncol.* 20:69–72 (1997); Evans and Relling, *Leuk. Res.* 18:811–814 (1994)). 6-TG is a particularly useful 6-MP drug in patients having high TPMT activity. Patients exhibiting high TPMT activity are expected to more easily convert 6-MP drugs such as 6-MP and AZA to 6-MMP (see FIGS. 1 and 2). As disclosed herein, high levels of 6-MMP are associated with hepatotoxicity (see Examples I and II). Therefore, patients with high TPMT activity can be more susceptible to toxic effects of 6-MP drug therapy. By administering 6-TG, which is an active 6-MP metabolite associated with therapeutic efficacy (see Examples I and II), the toxicity that can be associated with conversion of 6-MP to 6-MMP is bypassed.

It is understood that the 6-MP metabolites can be the metabolites shown in FIG. 1 or analogues thereof. As used herein, the term “6-thioguanine” or “6-TG” refers to 6-thioguanine or analogues thereof, including molecules having the same base structure, for example, 6-thioguanine ribonucleoside, 6-thioguanine ribonucleotide mono-, di- and tri-phosphate, 6-thioguanine deoxyribonucleoside and 6-thioguanine deoxyribonucleotide mono-, di, and triphosphate. The term “6-TG” also includes derivatives of 6-thioguanine, including chemical modifications of 6-TG, so long as the structure of the 6-TG base is preserved.

As used herein, the term “6-methyl-mercaptopurine” or “6-MMP” refers to 6-methyl-mercaptopurine or analogues thereof, including analogues having the same base structure, for example, 6-methyl-mercaptopurine ribonucleoside, 6-methyl-mercaptopurine ribonucleotide mono-, di-, and tri-phosphate, 6-methyl-mercaptopurine deoxyribonucleoside, and 6-methyl-mercaptopurine deoxyribonucleotide mono-, di- and tri-phosphate. The term “6-MMP” also includes derivatives of 6-methyl-mercaptopurine, including chemical modifications of 6-MMP, so long as the structure of the 6-MMP base is preserved.

The methods of the invention relate to treatment of an immune-mediated gastrointestinal disorder. As used herein, the term “immune-mediated gastrointestinal disorder” or “immune-mediated GI disorder” refers to a non-infectious disease of the gastrointestinal tract or bowel that is mediated by the immune system or cells of the immune system. Immune-mediated gastrointestinal disorders include, for example, inflammatory bowel diseases (IBD) such as Crohn's disease and ulcerative colitis, lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease.

The methods of the invention are particularly useful for treating IBD, or subtypes thereof, which has been classified into the broad categories of Crohn's disease and ulcerative colitis. As used herein, “a subject having inflammatory bowel disease” is synonymous with the term “a subject diagnosed with having an inflammatory bowel disease,” and means a patient having Crohn's disease or ulcerative colitis. Crohn's disease (regional enteritis) is a disease of chronic inflammation that can involve any part of the gastrointestinal tract. Commonly, the distal portion of the small intestine (ileum) and cecum are affected. In other cases, the disease is confined to the small intestine, colon or anorectal region. Crohn's disease occasionally involves the duodenum and stomach, and more rarely the esophagus and oral cavity.

The variable clinical manifestations of Crohn's disease are, in part, a result of the varying anatomic localization of

the disease. The most frequent symptoms of CD are abdominal pain, diarrhea and recurrent fever. CD is commonly associated with intestinal obstruction or fistula, which is an abnormal passage between diseased loops of bowel, for example. Crohn's disease also includes complications such as inflammation of the eye, joints and skin; liver disease; kidney stones or amyloidosis. In addition, CD is associated with an increased risk of intestinal cancer.

Several features are characteristic of the pathology of Crohn's disease. The inflammation associated with CD, known as transmural inflammation, involves all layers of the bowel wall. Thickening and edema, for example, typically also appear throughout the bowel wall, with fibrosis also present in long-standing disease. The inflammation characteristic of CD also is discontinuous in that segments of inflamed tissue, known as “skip lesions,” are separated by apparently normal intestine. Furthermore, linear ulcerations, edema, and inflammation of the intervening tissue lead to a “cobblestone” appearance of the intestinal mucosa, which is distinctive of CD.

A hallmark of Crohn's disease is the presence of discrete aggregations of inflammatory cells, known as granulomas, which are generally found in the submucosa. Some Crohn's disease cases display the typical discrete granulomas, while others show nonspecific transmural inflammation. As a result, the presence of discrete granulomas is indicative of CD, although the absence of granulomas also is consistent with the disease. Thus, transmural or discontinuous inflammation, rather than the presence of granulomas, is a preferred diagnostic indicator of Crohn's disease (Rubin and Farber, *Pathology* (Second Edition) Philadelphia: J. B. Lippincott Company (1994)).

Ulcerative colitis (UC) is a disease of the large intestine characterized by chronic diarrhea with cramping abdominal pain, rectal bleeding, and loose discharges of blood, pus and mucus. The manifestations of ulcerative colitis vary widely. A pattern of exacerbations and remissions typifies the clinical course of most UC patients (70%), although continuous symptoms without remission are present in some patients with UC. Local and systemic complications of UC include arthritis, eye inflammation such as uveitis, skin ulcers and liver disease. In addition, ulcerative colitis and especially long-standing, extensive disease is associated with an increased risk of colon carcinoma.

Several pathologic features characterize UC in distinction to other inflammatory bowel diseases. Ulcerative colitis is a diffuse disease that usually extends from the most distal part of the rectum for a variable distance proximally. The term left-sided colitis describes an inflammation that involves the distal portion of the colon, extending as far as the splenic flexure. Sparing of the rectum or involvement of the right side (proximal portion) of the colon alone is unusual in ulcerative colitis. The inflammatory process of ulcerative colitis is limited to the colon and does not involve, for example, the small intestine, stomach or esophagus. In addition, ulcerative colitis is distinguished by a superficial inflammation of the mucosa that generally spares the deeper layers of the bowel wall. Crypt abscesses, in which degenerated intestinal crypts are filled with neutrophils, also are typical of ulcerative colitis (Rubin and Farber, *supra*, 1994).

In comparison with Crohn's disease, which is a patchy disease with frequent sparing of the rectum, ulcerative colitis is characterized by a continuous inflammation of the colon that usually is more severe distally than proximally. The inflammation in ulcerative colitis is superficial in that it is usually limited to the mucosal layer and is characterized by

an acute inflammatory infiltrate with neutrophils and crypt abscesses. In contrast, Crohn's disease affects the entire thickness of the bowel wall with granulomas often, although not always, present. Disease that terminates at the ileocecal valve, or in the colon distal to it, is indicative of ulcerative colitis, while involvement of the terminal ileum, a cobblestone-like appearance, discrete ulcers or fistulas suggest Crohn's disease.

In addition to IBD, immune-mediated GI disorders also include other gastrointestinal diseases such as lymphocytic colitis; microscopic colitis; collagenous colitis; autoimmune enteropathy, including autoimmune enteritis and autoimmune enterocolitis; allergic gastrointestinal disease; and eosinophilic gastrointestinal disease, including eosinophilic gastroenteritis and eosinophilic enteropathy.

Over the past two decades, the histological evaluation of colorectal biopsies obtained by colonoscopy has expanded the spectrum of chronic IBD. A new group of immune-mediated bowel disorders has emerged, characterized by chronic watery diarrhea, minimal or absent endoscopic findings, and inflammatory changes in mucosal biopsies. Lymphocytic colitis, also commonly referred to as microscopic colitis, is a clinicopathological syndrome characterized primarily by lymphocytic infiltration of the epithelium. Collagenous colitis is defined by the presence of a collagenous band below the surface epithelium, accompanied by an increase in inflammatory cell infiltrate (Lazenby et al. *Hum. Pathol.* 20:18–28 (1989)). These disorders are often associated with other autoimmune diseases such as rheumatoid arthritis, pernicious anemia, thyroiditis, uveitis and type I diabetes mellitus. Clinicians have used immunosuppressive drugs, including 6-MP, to treat these disorders (Deslandres et al. *J. Pediatr. Gastroenterol. Nutr.* 25:341–346 (1997)).

Autoimmune enteropathy, including autoimmune enteritis and autoimmune enterocolitis, is a syndrome of severe secretory diarrhea and marked enterocolitis, in association with diagnostic circulating antibodies to enterocytes (Seidman et al., *J. Pediatr.* 117:929–932 (1990)). This syndrome, most often seen in infancy, can be seen in association with other autoimmune diseases. Complete villous atrophy is associated with a severe inflammatory reaction on small bowel biopsies. Although some cases remit after an extended period of time, most patients die without immunosuppressive therapy, which can include 6-MP drug therapy.

Eosinophilic gastrointestinal disease, including eosinophilic gastroenteritis and eosinophilic enteropathy, is characterized by a dense infiltration of eosinophils in one or more areas of the gastrointestinal tract, variable intestinal symptoms, and usually a peripheral eosinophilia (80% of cases). Food allergic, including allergic gastrointestinal disease, and eosinophilic disorders of the gastrointestinal tract are commonly treated by dietary elimination of the offending nutrients. However, both food induced and eosinophilic enteropathies may, in certain circumstances, require corticosteroid and immunosuppressive therapy, including 6-MP (Russo et al., *Pediatric Dev. Path.* 2:65–71 (1999)).

The methods of the invention relate to optimizing therapeutic efficacy of 6-MP drug treatment of an immune-mediated GI disorder, including IBD such as Crohn's disease and ulcerative colitis and subtypes thereof. The methods of the invention are particularly useful for treating patients dependent on steroid therapy for maintenance of remission of disease in Crohn's disease and ulcerative colitis patients. As used herein, the phrase "optimizing therapeutic

efficacy of 6-MP drug treatment" refers to adjusting the therapeutic dosage of a 6-MP drug such as 6-MP or azathioprine so that the concentration of a 6-MP metabolite that is correlated with effective treatment is maintained. As set forth above, the methods of the invention allow the clinician to provide an individually optimized dosage of a 6-MP drug so as to achieve a target level of a 6-MP metabolite in a particular patient, thereby optimizing the effectiveness of 6-MP drug therapy in the patient. Therapeutic efficacy generally is indicated by alleviation of one or more signs or symptoms associated with the disease. In the case of immune-mediated GI disorders, in particular IBD, therapeutic efficacy is indicated by alleviation of one or more signs or symptoms associated with the disease, including, for example, joint pain, arthritis, arthralgia, anorexia, growth failure, fistula closure, abdominal pain, diarrhea, recurrent fever, anemia, weight loss, rectal bleeding, inflammation of the intestine, and loose discharges of blood, pus and mucus. Methods for determining therapeutic efficacy, in particular for treating IBD, are disclosed herein in Examples I and II.

Therapeutic efficacy can be readily determined by one skilled in the art as the alleviation of one or more signs or symptoms of the disease being treated. In the case of IBD, patients can be analyzed using a Crohn's disease activity index (Best et al., *Gastroenterology* 70:439–444 (1976)). IBD patients can also be analyzed using a Harvey-Bradshaw index (HBI) (Harvey and Bradshaw, *Lancet* 1:514 (1980)). The Harvey-Bradshaw index provides an analytical method for measuring signs or symptoms of Crohn's disease, including the signs or symptoms of general well-being, abdominal pain, number of liquid stools per day, abdominal mass, and complications such as arthralgia, uveitis, erythema nodosum, aphthous ulcers, pyoderma gangrenosum, anal fissure, new fistula and abscess. The Harvey-Bradshaw index is particularly useful when evaluating pediatric patients.

Previous studies suggested that measurement of 6-MP metabolite levels can be used to predict clinical efficacy and tolerance to azathioprine or 6-MP (Cuffari et al., *Gut* 39:401–406 (1996a)). However, it was unknown what concentrations of 6-MP metabolites correlated with optimized therapeutic efficacy or with toxicity (Cuffari et al., supra, 1996a). As disclosed herein, levels of 6-MP metabolites such as 6-TG and 6-MMP were determined and correlated with therapeutic efficacy and toxicity associated with 6-MP drug therapy (see Examples I and II).

The invention is directed to methods of optimizing therapeutic efficacy of 6-MP drug treatment of an immune-mediated GI disorder by monitoring predetermined levels associated with therapeutic efficacy or toxicity and adjusting the 6-MP drug dosage so as to maintain an optimized dose that is efficacious and has reduced toxicity. The methods involve administering a 6-MP drug such as 6-MP or azathioprine to a subject having an immune-mediated GI disorder and determining a level of a 6-MP metabolite in the subject having the immune-mediated GI disorder. The methods of the invention are advantageous in that the dosage of a 6-MP drug can be adjusted to maximize the efficacy of treating an immune-mediated GI disorder such as IBD while minimizing toxicity associated with 6-MP drug treatment.

As used herein, the term "6-mercaptopurine metabolite" refers to a product derived from 6-mercaptopurine in a biological system. Exemplary 6-mercaptopurine metabolites are shown in FIG. 1 and include 6-thioguanine (6-TG), 6-methyl-mercaptopurine (6-MMP) and 6-thiouric acid and analogues thereof. For example, 6-MP metabolites include 6-TG bases such as 6-TG, 6-thioguanosine mono-, di- and

tri-phosphate; 6-MMP bases such as 6-methylmercaptapurine and 6-methyl-thioinosine monophosphate; 6-thioxanthosine (6-TX) bases such as 6-thioxanthosine mono-phosphate; 6-thioric acid (6-TUA); and 6-MP bases such as 6-mercaptopurine and 6-thioinosine monophosphate (see FIG. 2). The immunosuppressive properties of 6-MP are believed to be mediated via the intracellular transformation of 6-MP to its active metabolites such as 6-TG and 6-MMP nucleotides. Furthermore, 6-MP metabolites such as 6-TG and 6-MMP were found to correlate with therapeutic efficacy and toxicity associated with 6-MP drug treatment of IBD patients (see Examples I and II).

The level of a 6-MP metabolite can be determined by methods well known in the art including, for example, those described in Lilleyman and Lennard, *Lancet* 343:1188-1190 (1994); Lennard and Singleton, *J. Chromatography Biomed. Applicat.* 583:83-90 (1992); Lennard and Singleton, *J. Chromatography* 661:25-33 (1994); and Cuffari et al., *Can. J. Physiol. Pharmacol.* 74:580-585 (1996b)). 6-MP metabolites such as 6-TG and 6-MMP can be measured, for example, by collecting red blood cells and extracting thiobases, for example, 6-MP, 6-TG, 6-TX and 6-MMP, which are released by acid hydrolysis. 6-MMP is converted to a form extractable by phenyl mercury salts (Dervieux and Boulieu, *Clin. Chem.* 44:2511-2525 (1998); Duchesne et al., *Proc. Amer. Soc. Clin. Oncol.* 13:137 (1994a); Duchesne et al., *Can. J. Physiol. Pharmacol.* 72:197 (1994b)). Such an analysis measures the thio base and its analogues, including ribonucleoside, ribonucleotide, deoxyribonucleoside, deoxyribonucleotide thio bases as well as mono-, di- and tri-phosphate analogues, which have been converted to thio bases.

Acid hydrolyzed extracts can be analyzed by resolving 6-MP metabolites and measuring their levels. For example, HPLC such as reverse phase HPLC is a useful method for resolving and measuring the levels of 6-MP metabolites, including 6-MP, 6-TG and 6-MMP (Lennard and Singleton, supra, 1992). Ultraviolet light (UV) detection can be used to measure the 6-MP metabolites. A particularly useful method of measuring 6-MP metabolites is isocratic reverse phase HPLC with UV detection (Cuffari et al., supra, 1996b).

Other methods for measuring 6-MP metabolites can also be used. For example, ion-pairing HPLC with dual UV-wavelength detection can be used to measure 6-MP metabolites (Zimm and Strong, *Anal. Biochem.* 160:1-6 (1987)). Additional methods for measuring 6-MP metabolites include, for example, capillary electrophoresis with laser-induced fluorescence detection (Rabel et al., *Anal. Biochem.* 224:315-322 (1995)); anion exchange chromatography and fluorescent detection (Tidd and Dedhar *J. Chromatography* 145:237-246 (1978)); lanthanum precipitation, acid hydrolysis, back extraction and fluorometric assay (Fletcher and Maddocks, *Brit. J. Clin. Pharmacol.* 10:287-292 (1980)); thin layer chromatography (Bennet and Allen, *Cancer Res.* 31:152-158 (1971)); precolumn derivatization with the thiol-reactive fluorophore monobromobimane, treatment with alkaline phosphatase, HPLC resolution and quantification by fluorometry (Warren and Slordal, *Anal. Biochem.* 215:278-283 (1993)); and enzymatic hydrolysis followed by HPLC separation and UV detection (Giverhaug et al., *Ther. Drug Monit.* 19:663-668 (1997)). 6-MP metabolites such as 6-TG can also be measured in DNA by degrading DNA to deoxyribonucleosides, derivatizing deoxy-6-TG with a fluorophore and resolving on reverse phase HPLC (Warren et al., *Cancer Res.* 55:1670-1674 (1995)).

As used herein, the level of a 6-MP metabolite can include the 6-MP metabolite itself, or the level of the 6-MP metabo-

lite and analogues thereof. For example, as described above, acid hydrolysis can be used to release thionucleotides from a sample, resulting in conversion of mono-, di- and tri-phosphates to thio bases. In such an analysis, the level of several analogues of a thionucleotide are measured (see FIG. 2). For example, measuring 6-TG can include 6-thioguanosine 5'-mono-, di-, and tri-phosphate, and 6-thiodeoxyguanosine 5'-di-, and tri-phosphate. Measuring 6-MP can include 6-mercaptopurine and 6-thioinosine 5'-monophosphate. Measuring 6-MMP can include 6-methylmercaptapurine and 6-methylthioinosine 5'-monophosphate, and can also include 6-methylthioinosine di- and tri-phosphate, as well as 6-methyl thioguanosine.

A particularly useful determination of the level of a 6-MP metabolite is the median level of the 6-MP metabolite since the distribution of 6-MP metabolite values is trimodal. Unless otherwise designated, the levels referred to herein are median levels. A 6-MP metabolite level can also be a mean level, if so desired. Unless otherwise designated, the levels of 6-MP metabolites referred to herein are values per 8×10^8 RBC, whether reported as mean or median values.

6-MP metabolite levels can be conveniently assayed using red blood cells because such cells are readily available from the patient, lack a nucleus and are easy to manipulate. However, it should be understood that any measurement that allows determination of 6-MP metabolite levels can be used. For example, leukocytes can be used to measure 6-MP metabolite levels, which can be correlated with 6-MP metabolite levels in erythrocytes (Cuffari et al., supra, 1996b). Regardless of the method employed to measure 6-MP metabolites, one skilled in the art can readily measure 6-MP metabolite levels in a sample, for example, in leukocytes or DNA obtained from a patient, and correlate the level of 6-MP metabolites to the values disclosed herein, which were determined using RBC.

For convenience, levels of 6-MP metabolites disclosed herein are given in terms of an assay with RBC and, therefore, are given as an amount of a 6-MP metabolite in a given number of RBCs. 6-MP metabolites assayed in RBCs can also be determined relative to the amount of hemoglobin. However, it should be understood that one skilled in the art can measure 6-MP metabolite levels in samples other than RBCs and readily correlate such levels with 6-MP metabolite levels in RBCs. For example, one skilled in the art can readily determine levels of a 6-MP metabolite in cells such as leukocytes, or cells from the oral mucosa, and in RBCs by measuring the level of 6-MP metabolites in both types of cells and determining the correspondence between levels of 6-MP metabolites in RBCs and the levels in the other cells. Once a correspondence between 6-MP metabolites in RBCs and in a sample has been determined, one skilled in the art can use that correspondence to measure levels in the other sample and correlate those levels with the levels in RBCs disclosed herein.

As disclosed herein, the level of 6-TG in an IBD patient treated with a 6-MP drug was found to correlate with therapeutic efficacy (see Examples I and II). In particular, a median level of 230 pmol 6-TG/ 8×10^8 RBC or more was found in IBD patients who responded to 6-MP drug therapy. Thus, as disclosed herein, a level of at least about 230 pmol 6-TG per 8×10^8 RBC can be a minimal therapeutic level of 6-TG for efficaciously treating a patient. Accordingly, a level of 6-TG below about 230 pmol/ 8×10^8 RBC indicates a need to increase the amount of a 6-MP drug administered to the patient. A minimal therapeutic level of 6-TG for efficaciously treating a patient also can be, for example, at least

about 240 pmol per 8×10^8 RBC; at least about 250 pmol per 8×10^8 RBC; at least about 260 pmol per 8×10^8 RBC; at least about 280 pmol per 8×10^8 RBC or at least about 300 pmol per 8×10^8 RBC. It is understood that the minimal therapeutic levels of 6-TG disclosed herein are useful for treating immune-mediated gastrointestinal disorders, including IBD, as well as non-IBD autoimmune diseases.

The methods of the invention directed to determining whether a patient has a minimal therapeutic level of a 6-MP metabolite are useful for indicating to the clinician a need to monitor a patient for therapeutic efficacy and to adjust the 6-MP drug dose, as desired. For example, in a patient having less than a minimal therapeutic level of a 6-MP metabolite such as 6-TG and who also presents as unresponsive to 6-MP drug therapy or having poor responsiveness to 6-MP drug therapy as measured by minimal or no effect on a sign or symptom of the disease being treated, one skilled in the art can determine that the dosage of a 6-MP drug should be increased. However, if it is determined that a patient has less than a predetermined minimal therapeutic level of a 6-MP metabolite but is responsive to 6-MP therapy, the current dose of 6-MP drug can be maintained. Based on measuring 6-MP metabolite levels and assessing the responsiveness of the patient to 6-MP therapy, one skilled in the art can determine whether a 6-MP drug dose should be maintained, increased, or decreased.

Although 6-MP drugs such as 6-MP and azathioprine can be used for effective treatment of an immune-mediated GI disorder, including IBDs such as Crohn's disease or ulcerative colitis, administration of such drugs can be associated with toxic side effects. Toxicities associated with 6-MP drug administration include pancreatitis, bone marrow depression, allergic reactions and drug hepatitis as well as neoplasms and infectious complications (Present et al., *Annals Int. Med.* 111:641-649 (1989); Cuffari et al., supra, 1996a). As disclosed herein, various toxicities associated with 6-MP drug treatment, including hepatic toxicity, pancreatic toxicity and hematologic toxicity, correlate with the level of 6-MP metabolites in a subject administered a 6-MP drug (see Examples I and II).

Thus, the present invention also provides a method of reducing toxicity associated with 6-MP drug treatment of an immune-mediated GI disorder. The method of the invention for reducing toxicity associated with 6-MP drug treatment includes the steps of administering a 6-MP drug to a subject having an immune-mediated GI disorder; and determining a level of a 6-MP metabolite in the subject having the immune-mediated GI disorder, where a level of the 6-MP metabolite greater than a predetermined toxic level of the 6-MP metabolite indicates a need to decrease the amount of 6-MP drug subsequently administered to the subject, thereby reducing toxicity associated with 6-MP drug treatment of the immune-mediated GI disorder. In a method of the invention, the 6-MP metabolite can be, for example, 6-TG and the predetermined toxic level of 6-TG can correspond, for example, to a level of about 400 pmol per 8×10^8 red blood cells. Where the elevated 6-MP metabolite is 6-TG, the toxicity associated with 6-MP treatment can be, for example, hematologic toxicity, including leukopenia or bone marrow suppression. The 6-MP metabolite also can be a metabolite such as 6-MMP, and the predetermined toxic level of 6-MMP can correspond, for example, to a level of about 7000 pmol per 8×10^8 red blood cells. Where the elevated 6-MP metabolite is 6-MMP, the toxicity associated with 6-MP drug treatment can be, for example, hepatic toxicity.

As disclosed herein, the level of a 6-MP metabolite can be determined in a subject treated with a 6-MP drug and

compared to a predetermined toxic level of a 6-MP metabolite such as 6-TG or 6-MMP to adjust future 6-MP drug administration, thereby reducing toxicity in the subject. For example, as disclosed herein, levels of 6-TG above about 400 pmol/ 8×10^8 RBC indicated that a patient was likely to experience toxicity, in particular hematologic toxicity such as leukopenia (see Examples I and II). Accordingly, a level of 6-TG above about 400 pmol/ 8×10^8 RBC can be a predetermined toxic level of 6-TG, which indicates that the amount of 6-MP drug subsequently administered should be decreased.

It is understood that, when a patient is determined to have a level of a 6-MP metabolite such as 6-TG or 6-MMP higher than a predetermined toxic level, one skilled in the art can make a determination as to whether a 6-MP drug dose should be decreased. For example, if the level of a 6-MP metabolite such as 6-TG or 6-MMP is higher than a predetermined toxic level, one skilled in the art can monitor for toxic side effects by measuring one or more of the toxicities associated with 6-MP drug treatment, as disclosed herein. As disclosed herein, a level of 6-TG greater than about 400 pmol per 8×10^8 RBCs was associated with increased risk of leukopenia or bone marrow suppression. Therefore, one skilled in the art can measure white blood cells (WBC) in a patient having levels of 6-TG higher than a predetermined toxic level to determine if the patient is exhibiting signs of reduced WBC counts. If such a patient exhibits signs of leukopenia or bone marrow suppression, the 6-MP drug dose can be reduced. However, if it is determined that a patient has levels of a 6-MP metabolite higher than a predetermined toxic level but does not exhibit signs of leukopenia or other 6-MP drug toxicities, one skilled in the art can determine that the current 6-MP drug dose can be maintained. Based on measuring 6-MP metabolite levels and determining signs or symptoms of toxicities associated with 6-MP drug treatment, one skilled in the art can determine whether a 6-MP drug dose should be maintained or decreased. As such, a level of a 6-MP metabolite higher than a predetermined toxic level can indicate a need to measure a toxicity associated with 6-MP drug treatment such as measuring WBCs or any of the other signs or symptoms of toxicities associated with 6-MP drug treatment to determine if the 6-MP drug dose should be adjusted.

Furthermore, it is understood that, when decreasing the 6-MP drug dose, one skilled in the art will know or can readily determine whether the 6-MP drug dose should be decreased to a lower dose or whether 6-MP drug administration should be stopped for some period of time, or terminated. For example, if the clinician determines that 6-MP drug therapy should be stopped for some period of time due to levels of a 6-MP metabolite exceeding a level predetermined to be toxic, the levels of 6-MP metabolites can be monitored after stopping 6-MP drug therapy until the level of the toxic 6-MP metabolite returns to a safe, non-toxic level. At that time, the clinician can resume 6-MP drug therapy, if desired.

The methods of the invention for reducing toxicity associated with 6-MP drug treatment of a disease involve comparing a level of a 6-MP metabolite to a predetermined toxic level of a 6-MP metabolite. In general, a "predetermined toxic level" of a 6-MP metabolite means a level of a 6-MP metabolite that has been correlated with one or more toxicities associated with 6-MP drug treatment. As disclosed herein, a predetermined toxic level of 6-TG can be about 400 pmol per 8×10^8 RBC. A predetermined toxic level of 6-TG also can be about 350 pmol per 8×10^8 RBC; 370 pmol per 8×10^8 RBC; 390 pmol per 8×10^8 RBC; 425 pmol per 8×10^8

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RBC; or 450 pmol per 8×10^8 RBC. It is understood that the predetermined toxic levels of 6-TG disclosed herein are useful for treating immune-mediated GI disorders, including IBD, as well as non-IBD autoimmune diseases.

Another 6-MP metabolite useful for predicting the likelihood of toxicity is 6-methyl-mercaptopurine (6-MMP). As disclosed herein, a level of greater than about 7000 pmol 6-MMP/ 8×10^8 in patients administered a 6-MP drug was associated with toxicity, in particular hepatotoxicity (see Examples I and II). These results indicate that the level of 6-MMP can be used to predict toxicity in a patient treated with a 6-MP drug. As disclosed herein, a predetermined toxic level of 6-MMP can be about 7000 pmol per 8×10^8 RBC. A predetermined toxic level of 6-MMP also can be about 6000 pmol per 8×10^8 RBC; 6500 pmol per 8×10^8 RBC; 7500 pmol per 8×10^8 RBC; or 8000 pmol per 8×10^8 RBC. It is understood that the predetermined toxic levels of 6-MMP disclosed herein are useful for treating immune-mediated GI disorders, including IBD, as well as non-IBD autoimmune diseases. According to a method of the invention, if the level of 6-MMP is above a predetermined toxic level, the subsequent administration of a 6-MP drug can be decreased to minimize toxicity.

Further provided by the invention is a method of optimizing therapeutic efficacy and reducing toxicity associated with 6-MP drug treatment of an immune-mediated GI disorder such as IBD. The method includes the steps of administering a 6-MP drug to a subject having an immune-mediated GI disorder; determining a level of 6-TG in the subject having the immune-mediated GI disorder; and determining a level of 6-MMP in the subject having the immune-mediated GI disorder, where a level of 6-TG less than a predetermined minimal therapeutic level indicates a need to increase the amount of 6-MP drug subsequently administered to the subject, thereby increasing therapeutic efficacy; where a level of 6-TG greater than a predetermined toxic level of 6-TG indicates a need to decrease the amount of 6-MP drug subsequently administered to the subject, thereby reducing toxicity associated with 6-MP treatment of the immune-mediated GI disorder; and where a level of 6-MMP greater than a predetermined toxic level of 6-MMP indicates a need to decrease the amount of 6-MP drug subsequently administered to the subject, thereby reducing toxicity associated with 6-MP drug treatment of the immune-mediated GI disorder.

In such a method of optimizing therapeutic efficacy and reducing toxicity associated with 6-MP drug treatment of an immune-mediated GI disorder such as IBD, the predetermined minimal therapeutic level of 6-TG can be, for example, a level corresponding to about 230 pmol per 8×10^8 red blood cells; the predetermined toxic level of 6-TG can be, for example, a level corresponding to about 400 pmol per 8×10^8 red blood cells; and the predetermined toxic level of 6-MMP can be, for example, a level corresponding to about 7000 pmol per 8×10^8 red blood cells. In a method of the invention, the subject having an immune-mediated GI disorder such as IBD can be, for example, a pediatric subject. The level of 6-TG and 6-MMP each can be conveniently determined, for example, in red blood cells using HPLC.

The methods of the invention are useful for optimizing the amount of a 6-MP drug to be administered to a patient with an immune-mediated GI disorder such as IBD. By measuring the levels of 6-MP metabolites such as 6-MMP and 6-TG, one skilled in the art can determine the 6-MP drug dosage that will result in optimized therapeutic efficacy and reduced toxicity when administered to a patient.

As disclosed herein, gender and age differences were observed in pediatric patients treated with 6-MP drug

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therapy (see Example III). Very little change in 6-MP metabolite levels of 6-TG and 6-MMP was seen for girls who had gone through puberty (older than age 12). However, boys who had gone through puberty (older than age 14) had a marked decrease in the level of 6-MMP, suggesting that hormonal changes occurring during puberty can affect the metabolism of a 6-MP drug. Therefore, the methods of the invention can additionally be used to monitor 6-MP metabolite levels in adolescents, particularly those going through puberty, in order to optimize therapeutic efficacy or minimize toxic side effects associated with 6-MP therapy.

As disclosed herein, TPMT genotyping is useful for predicting the effectiveness of 6-MP therapy in an IBD patient (see Example IV). Heterozygote patients are expected to have lower TPMT activity and should therefore be monitored for high levels of 6-TG for possible toxic levels associated with leukopenia or bone marrow suppression. 6-MP drug doses can be reduced accordingly. Wild type homozygous patients are expected to have higher TPMT activity and should therefore be monitored to maintain an effective therapeutic level of 6-TG and to determine if patients develop toxic levels of 6-MMP. Homozygous patients deficient in TPMT activity can be treated with lower doses of a 6-MP drug provided that patients are closely monitored for toxicity such as leukopenia. Therefore, TPMT genotyping can be used to predict patient responsiveness to and potential toxicities associated with 6-MP drug therapy. Furthermore, TPMT genotyping can be combined with other methods of the invention to both determine TPMT genotype and to monitor 6-MP metabolites. TPMT genotyping can be particularly valuable when determining a starting dose of 6-MP drug therapy but can also be useful when adjusting 6-MP drug doses after therapy has begun.

The invention additionally provides a method of optimizing therapeutic efficacy of 6-MP drug treatment of a non-IBD autoimmune disease. The method includes the steps of administering a 6-MP drug to a subject having a non-IBD autoimmune disease; and determining a level of 6-thioguanine (6-TG) in the subject having the non-IBD autoimmune disease, where a level of 6-TG less than a minimal therapeutic level indicates a need to increase the amount of 6-MP drug subsequently administered to the subject and where a level of 6-TG greater than a predetermined toxic level indicates a need to decrease the amount of 6-MP drug subsequently administered to the subject. The level of 6-MMP can also be monitored in a patient having a non-IBD autoimmune disease to determine if the level is higher than a predetermined toxic level of 6-MMP.

The methods of the invention can be used to optimize therapeutic efficacy of 6-MP drug treatment of a non-IBD autoimmune disease. Such a non-IBD autoimmune disease can be any non-IBD autoimmune disease treatable by a 6-MP drug such as 6-MP or azathioprine and, in particular, can be a disease such as rheumatoid arthritis, systemic lupus erythematosus, autoimmune hepatitis (chronic active hepatitis) or pemphigus vulgaris.

As used herein, the term "non-IBD autoimmune disease" means a disease resulting from an immune response against a self tissue or tissue component, including both self antibody responses and cell-mediated responses. The term non-IBD autoimmune disease encompasses organ-specific non-IBD autoimmune diseases, in which an autoimmune response is directed against a single tissue, including myasthenia gravis, vitiligo, Graves' disease, Hashimoto's disease, Addison's disease, autoimmune gastritis, and Type I diabetes mellitus. The term non-IBD autoimmune disease

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also encompasses non-organ specific autoimmune diseases, in which an autoimmune response is directed against a component present in several or many organs throughout the body. Non-organ specific autoimmune diseases include, for example, systemic lupus erythematosus, progressive systemic sclerosis and variants, polymyositis and dermatomyositis, and rheumatoid disease. Additional non-IBD autoimmune diseases include pernicious anemia, primary biliary cirrhosis, autoimmune thrombocytopenia, and Sjögren's syndrome. One skilled in the art understands that the methods of the invention can be applied to these or other non-IBD autoimmune diseases treatable by a 6-MP drug such as 6-MP or azathioprine, or other 6-MP drugs, as desired. Specifically excluded from the term "non-IBD autoimmune disease" are diseases resulting from a graft versus host response and inflammatory bowel diseases such as Crohn's disease or ulcerative colitis.

The methods of the invention are also useful for treating a non-immune-mediated GI disorder autoimmune disease. As used herein, the term "non-immune-mediated GI disorder autoimmune disease" is a non-IBD autoimmune disease and specifically excludes immune-mediated GI disorders.

The methods of the invention can be particularly useful for optimizing therapeutic efficacy of 6-MP drug treatment of rheumatoid arthritis. Rheumatoid arthritis is a chronic systemic disease primarily of the joints, usually polyarticular, marked by inflammatory changes in the synovial membranes and articular structures and by muscle atrophy and rarefaction of the bones.

The methods of the invention also can be particularly valuable for optimizing therapeutic efficacy of 6-MP drug treatment of lupus erythematosus and, in particular, systemic lupus erythematosus (SLE). Systemic lupus erythematosus is a chronic, remitting, relapsing inflammatory, and sometimes febrile multisystemic disorder of connective tissue. SLE can be acute or insidious at onset and is characterized principally by involvement of the skin, joints, kidneys and serosal membranes.

Autoimmune hepatitis, also called chronic active hepatitis, also can be treated with a 6-MP drug and the dose optimized using the methods of the invention. Autoimmune hepatitis is a chronic inflammation of the liver occurring as a sequel to hepatitis B or non-A, non-B hepatitis and is characterized by infiltration of portal areas by plasma cells and macrophages, piecemeal necrosis, and fibrosis.

The methods of the invention also can be useful for treating pemphigus vulgaris, the most common and severe form of pemphigus, which is a chronic, relapsing and sometimes fatal skin disease characterized clinically by the development of successive crops of vesicles and bullae and treated by azathioprine. This disorder is characterized histologically by acantholysis, and immunologically by serum autoantibodies against antigens in the intracellular zones of the epidermis.

The methods of the invention can also be used to optimize the therapeutic efficacy of 6-MP drug treatment of graft versus host disease, which can occur in transplant patients. Graft versus host disease occurs when a transplant patient has an immune reaction to the non-self transplant organ or tissue. The methods of the invention for optimizing the therapeutic efficacy of 6-MP drug treatment is particularly useful for treating heart, kidney and liver transplant recipients. The methods of the invention can be used to optimize therapeutic efficacy and/or minimize toxicity associated with 6-MP drug treatment of a transplant patient.

The following examples are intended to illustrate but not limit the present invention.

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EXAMPLE I

6-Mercaptopurine Metabolite Levels Predict Clinical Efficacy and Drug Toxicity in Pediatric IBD

This example describes measuring 6-MP metabolite levels and correlation with the response of IBD patients treated with a 6-MP drug.

The levels of the 6-MP metabolites 6-TG and 6-MMP were measured in IBD patients to whom 6-MP pro-drug was administered, and the relationship of 6-MP metabolites to clinical disease activity and drug toxicity was determined. Briefly, blood was sampled (n=89) prior to daily administration of 6-MP in 55 IBD patients (CD n=51, UC n=4) receiving 1–1.5 mg/kg/day over at least a 4 month period (≥ 4 mo.). When AZA was administered, a conversion factor of 2.07 was used to convert to the equivalent 6-MP dose. Twice as much AZA is administered relative to 6-MP to have an equivalent dose of 6-MP.

Erythrocyte 6-TG, 6-MMP and 6-MP thiobases were measured (pmol/ 8×10^8 RBC) using reverse phase HPLC. Briefly, blood samples were collected in EDTA (ethylene diamine tetraacetic acid) as anticoagulant. Cells were centrifuged and washed three times with an equal volume of 0.9% saline. Washed packed cells were stored at -70° C. until analysis was performed.

For acid hydrolysis, 500 μ l deionized H_2O , 50 μ l thawed red blood cells, 40 μ l of the appropriate standard or control, 500 μ l 3.0 N H_2SO_4 , and 300 μ l 10 mM dithiothreitol (DTT) was added to an 8 ml glass screw cap tube. The capped tubes were placed in a heating block preheated to 100° C. and hydrolyzed. For 6-MMP, hydrolysis was carried out for 5 hours. For 6-MP and 6-TG, hydrolysis was carried out for 1 hour. After the incubation, tubes were cooled in a room temperature water bath. To tubes hydrolyzed for 5 hours (6-MMP), 400 μ l 3.4 N NaOH and 1.0 ml 2 M Tris buffer, pH 9.0 was added. To tubes hydrolyzed for 1 hour (6-MP/6-TG), 450 μ l 3.4 N NaOH and 500 μ l 2M Tris base was added. A volume of 4 ml 0.03% phenylmercuric chloride in methylene chloride was added to each tube. The tubes were capped and lightly agitated on a bi-directional rotator (15 min for 6-MMP and 30 min for 6-MP/6-TG). The contents were transferred to a 15 ml polypropylene centrifuge tube and centrifuged at 3500 rpm for 3 min at 10° C. The aqueous phase (top layer) was discarded, and 3.0 ml of the organic phase (bottom layer) was transferred to a clean 15 ml polypropylene centrifuge tube. The analytes in the organic phase were back extracted by adding 225 μ l 0.1 N HCl and lightly mixing on an orbital rotator for 5 min. Following vortexing for 30 seconds, the tubes were centrifuged at 3500 rpm for 3 min at 10° C.

For 6-MMP analysis, 50 μ l analyte was analyzed on a C18 reverse phase column with the mobile phase containing 1 mM DTT, 2.078% triethylamine and 4% methanol, adjusted to pH 3.2 with concentrated H_3PO_4 . For 6-MP and 6-TG analysis, 100 μ l analyte was analyzed on a C18 reverse phase column using 0.1 M H_3PO_4 and 1 mM DTT in H_2O as the mobile phase.

Hepatic, pancreatic and hematological tests were obtained every 3 months. Clinical remission was defined as a Harvey Bradshaw Index < 5 in those patients off corticosteroids or weaned to a level of prednisone ≤ 0.4 mg/kg/od (administered every other day). Treatment failures were defined as non-responders (HBI > 5 or steroid dependence) or cessation of 6-MP due to side effects.

As shown in Table 1, a 6-TG level of > 225 pmol per 8×10^8 RBC was associated with remission. The median

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values shown in the tables represent pmol of the indicated 6-MP metabolite per 8×10^8 RBC. Excessive 6-TG and 6-MMP levels were associated with leukopenia and hepatotoxicity, respectively. Negligible metabolite levels detected non-compliance as a cause of treatment failure in 2/31 cases. These results indicate that 6-MP metabolite levels predict both clinical responsiveness and drug-related toxicity.

TABLE 1

Group	n	median 6-TG	6-TG >225	median 6-MMP
Responders	58	295	45/58 (78%)	3094
Non-responders	31	184*	8/31 (26%)	2048
Hepatic toxicity	7	258	5/7	9211**
Pancreatic toxicity	6	211	2/6	2342
Hematologic toxicity	6	414+	5/5	7042
p Values		*<0.001 +<0.03	‡<0.001	**<0.001

These results demonstrate that determining levels of 6-MP metabolites is useful for predicting efficacy and toxicity of 6-MP drug therapy administered to IBD patients.

EXAMPLE II

6-Mercaptopurine Metabolite Levels Correlate with Optimal 6-MP Therapy in IBD Patients

This example describes prospective examination of the correlation of 6-MP metabolite levels with therapeutic response to 6-MP drug therapy and 6-MP drug related toxicity in IBD patients treated with 6-MP.

To obtain additional statistical data on IBD patients treated with a 6-MP drug, additional patients and samples were analyzed and combined with the data obtained in Example I. Blood was sampled at least once in 93 IBD patients followed at Sainte-Justine Hospital IBD Center, Montreal, Canada, who were administered 6-MP drug therapy for at least 4 months. The 93 patients were pediatric patients, with 80 diagnosed as having CD, 8 diagnosed as having UC, and 5 diagnosed as having indeterminate colitis (CD or UC). All but 7 patients were given AZA. The dosages were converted to 6-MP equivalents using a factor of 2.07 as described in Example I. For some patients, two or more samples were obtained and analyzed. Response to 6-MP was defined by clinical remission (HBI<5, closed fistula) without corticosteroids. Disease activity and physical exam were ascertained at each clinic visit at which 6-MP metabolite levels were determined (clinical evaluation point). Hematological, pancreatic and hepatic laboratory parameters were evaluated simultaneously. Erythrocyte 6-TG and 6-MMP concentrations (pmol/ 8×10^8 RBC) were measured by HPLC (Cuffari et al., supra, 1996a).

The results of the analysis of 6-MP metabolites in IBD patients are shown in Table 2. The number of samples corresponds to the number of different samples obtained from the 93 patients. 6-TG quartile analysis, in which values are determined at 25, 50 and 75% of the data set, revealed that the frequency of response significantly increased at levels>230 pmol/ 8×10^8 RBC ($p<0.01$). Among patients in relapse, only 28% of patients had 6-TG levels>230 pmol/ 8×10^8 RBC. In contrast, 65% of patients in remission had 6-TG levels>230 pmol/ 8×10^8 RBC ($p<0.01$). Therefore, erythrocyte 6-TG concentrations were significantly and independently associated with therapeutic response to 6-MP drug therapy.

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The induction and maintenance of remission was found to be optimal at 6-TG levels>230 pmol/ 8×10^8 RBC. 78% of patients above a median 6-TG of 230 pmol/ 8×10^8 RBC were responders (see FIG. 3). These results indicate that a 6-TG value of 230 pmol/ 8×10^8 RBC can be used to predict efficacy of drug treatment with a 6-MP drug such as 6-MP or azathioprine.

TABLE 2

Clinical evaluation point	(n)	Median 6-TG	Median 6-MMP	Median dose (mg/kg/day)
Remission	106	309*	2600	1.3
Relapse	72	197	1602	1.25
*p value		<0.0001	0.3	0.4

Toxicity in the IBD patients treated with a 6-MP drug was also evaluated. Toxicity was measured essentially as described previously (Cuffari et al., supra, 1996a). Thirty six patients (39%) experienced an adverse event. Hepatotoxicity was observed in 17% of patients, measured as the serum level of alanine aminotransferase (ALT) or aspartate aminotransferase (AST) (ALT, AST; exceeding or greater than 2xupper limit of normal). Leukopenia was observed in 14% of patients (white blood cell (WBC)<4000). Pancreatic toxicity was observed in 7% of patients (lipase/amylase>2x N). High 6-MMP levels correlated significantly with hepatotoxicity (5463 with hepatotoxicity versus 2177 without hepatotoxicity; $p=0.04$). Leukopenia was observed in only 8% (8/106) of samples from patients in remission, with significantly higher 6-TG levels observed in these patients (mean value of 490 in patients with leukopenia versus mean value of 323 without leukopenia; $p<0.04$; median values were 342 versus 307, respectively). Therefore, leukopenia did not correlate with therapeutic efficacy. Furthermore, drug dose (per kg) did not correlate with therapeutic efficacy (see Table 2). However, those patients who do develop leukopenia have a higher 6-TG level than the rest of the responder group. These results indicate that 6-TG levels should be monitored to avoid potential clinical bone marrow suppression in responder patients who have high levels of 6-TG.

These results demonstrate a significant correlation between erythrocyte 6-TG levels and the therapeutic response to 6-MP drug treatment in IBD patients. The induction and maintenance of remission was found to be optimal at 6-TG levels>230 pmol/ 8×10^8 RBC. Therefore, monitoring 6-MP metabolite levels, in particular 6-TG, is useful for determining that a therapeutically effective concentration of 6-MP metabolites is maintained while treating IBD patients with a 6-MP drug. Monitoring 6-MP metabolite levels, in particular 6-TG and 6-MMP, is also useful for minimizing 6-MP drug related toxicity.

EXAMPLE III

Gender and Age Differences in Metabolism of a 6-MP Drug

This example describes gender and age differences observed in pediatric patients treated with 6-MP drug therapy.

Pediatric IBD patients undergoing 6-MP drug therapy were assessed for levels of 6-MP metabolites. These patients were wild type for TPMT. Patients were assessed based on gender and age as it relates to puberty. Puberty is established at 12 years of age in girls and 14 years of age in boys.

As shown in Table 3, the 6-MMP values are much lower in boys after puberty (greater than 14 years). Since the total amount of thiometabolites is lower, this indicates that either lower doses of 6-MP are used or that there is a difference in the bioavailability of 6-MP after puberty in males.

TABLE 3

6-MP Metabolite Levels in Pediatric IBD Patients				
	Number Observed	6-TG level (pmol per 8 × 10 ⁸ RBC)	6-MMP level (pmol per 8 × 10 ⁸ RBC)	Ratio 6-MMP/6-TG
Girls (0–12 y)	39	182.2	3447.0	18.52
Girls (>12 y)	116	217.2	3304.5	12.55
Boys (0–14 y)	51	235.0	3681.6	17.24
Boys (>14 y)	104	222.5	1662.3*	6.78*

*p < 0.001

These results demonstrate that gender and age can affect the metabolism of 6-MP in pediatric IBD patients undergoing 6-MP drug therapy.

EXAMPLE IV

Thiopurine Methyltransferase (TPMT) Genotyping and Responsiveness to 6-MP Drug Therapy

This example describes TPMT genotyping of IBD patients treated with 6-MP drug therapy.

The genotype of TPMT was determined in IBD patients that were responders and non responders. Genotyping of TPMT was measured essentially as described previously (Baccichet et al., *Leuk. Res.* 21:817–823 (1997); Zietkiewicz et al., *Gene* 205:161–171 (1997)). The data shown in Table 4 indicate that patients heterozygous for the TPMT mutation had significantly higher 6-TG levels compared to those patients without the mutation. All heterozygote patients were responders to 6-MP.

TABLE 4

TPMT Genotyping of IBD Patients		
	Heterozygote	Normal
Responder	100%	55%
Non responder	0%	45%
mean 6-TG	589*	247

p value *less than 0.0001

TPMT genotyping revealed that 8 of 93 (9%) of patients were heterozygotes. No homozygous TPMT deficient patients were detected. All 8 heterozygotes responded to 6-MP and had 6-TG levels>230 pmol/8×10⁸ RBC.

These results demonstrate that TPMT genotyping is useful for predicting the effectiveness of 6-MP therapy in an IBD patient. Heterozygote patients are expected to have lower TPMT activity and should therefore be monitored for high levels of 6-TG for possible toxic levels associated with leukopenia or bone marrow suppression. 6-MP drug doses can be reduced accordingly. Wild type homozygous patients are expected to have higher TPMT activity and should therefore be monitored to maintain an effective therapeutic level of 6-TG and to determine if patients develop toxic levels of 6-MMP. Homozygous patients deficient in TPMT

activity can be treated with lower doses of a 6-MP drug provided that patients are closely monitored for toxicity such as leukopenia.

Although the invention has been described with reference to the examples provided above, it should be understood that various modifications can be made without departing from the spirit of the invention. Accordingly, the invention is limited only by the claims.

We claim:

1. A method of optimizing therapeutic efficacy for treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug providing 6-thioguanine to a subject having said immune-mediated gastrointestinal disorder; and

(b) determining the level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder, wherein the level of 6-thioguanine less than about 230 pmol per 8×10⁸ red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject and

wherein the level of 6-thioguanine greater than about 400 pmol per 8×10⁸ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.

2. The method of claim 1, wherein said immune-mediated gastrointestinal disorder is inflammatory bowel disease (IBD).

3. The method of claim 2, wherein said subject having IBD is a pediatric subject.

4. The method of claim 1, wherein said immune-mediated gastrointestinal disorder is selected from the group consisting of lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease.

5. The method of claim 1, wherein said level of 6-thioguanine is determined in red blood cells.

6. The method of claim 5, wherein said level is determined using high pressure liquid chromatography.

7. A method of reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug providing 6-thioguanine to a subject having said immune-mediated gastrointestinal disorder;

(b) determining the level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder; and

(c) determining the level of 6-methyl-mercaptopurine in said subject having said immune-mediated gastrointestinal disorder,

wherein the level of 6-thioguanine greater than about 400 pmol per 8×10⁸ red blood cells or the level of 6-methyl-mercaptopurine greater than about 7000 pmol per 8×10⁸ red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.

8. The method of claim 7, wherein said immune-mediated gastrointestinal disorder is IBD.

9. The method of claim 8, wherein said subject having IBD is a pediatric subject.

10. The method of claim 7, wherein said immune-mediated gastrointestinal disorder is selected from the group consisting of lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease.

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11. The method of claim 7, wherein said toxicity associated with said drug treatment is hematologic toxicity.

12. The method of claim 7, wherein said toxicity associated with said drug treatment is hepatic toxicity.

13. The method of claim 7, wherein said level of 6-thioguanine and said level of 6-methyl-mercaptopurine each is determined in red blood cells.

14. The method of claim 13, wherein said level is determined using high pressure liquid chromatography.

15. A method of optimizing therapeutic efficacy and reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

- (a) administering a drug providing 6-thioguanine to a subject having said immune-mediated gastrointestinal disorder;
- (b) determining the level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder; and
- (c) determining the level of 6-methyl-mercaptopurine in said subject having said immune-mediated gastrointestinal disorder,

wherein the level of 6-thioguanine less than about 230 pmol per 8×10^8 red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject,

wherein the level of 6-thioguanine greater than about 400 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject, and

wherein the level of 6-methyl-mercaptopurine greater than about 7000 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.

16. The method of claim 15, wherein said immune-mediated gastrointestinal disorder is IBD.

17. The method of claim 16, wherein said subject having IBD is a pediatric subject.

18. The method of claim 15, wherein said immune-mediated gastrointestinal disorder is selected from the group consisting of lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease.

19. The method of claim 15, wherein said level of 6-thioguanine and said level of 6-methyl-mercaptopurine each is determined in red blood cells.

20. The method of claim 19, wherein said level is determined using high pressure liquid chromatography.

21. The method of claim 15, wherein said toxicity associated with said drug treatment is selected from the group consisting of hepatic toxicity and hematologic toxicity.

22. A method of optimizing therapeutic efficacy of treatment of a non-IBD autoimmune disease, comprising:

- (a) administering a drug providing 6-thioguanine to a subject having said non-IBD autoimmune disease; and
- (b) determining the level of 6-thioguanine in said subject having said non-IBD autoimmune disease,

wherein the level of 6-thioguanine less than about 230 pmol per 8×10^8 red blood cells indicates a need to increase the amount of 6-mercaptopurine drug subsequently administered to said subject and

wherein the level of 6-thioguanine greater than about 400 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of 6-mercaptopurine drug subsequently administered to said subject.

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23. The method of claim 22, wherein said level of 6-thioguanine metabolite is determined in red blood cells.

24. The method of claim 23, wherein said level is determined using high pressure liquid chromatography.

25. A method of optimizing therapeutic efficacy and reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

- (a) administering a drug providing 6-thioguanine to a subject having said immune-mediated gastrointestinal disorder;
- (b) determining the level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder; and
- (c) determining the level of 6-methyl-mercaptopurine in said subject having said immune-mediated gastrointestinal disorder,

wherein the level of 6-thioguanine less than about 230 pmol per 8×10^8 red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject, and

wherein the level of 6-thioguanine greater than about 400 pmol per 8×10^8 red blood cells or a level of 6-methyl-mercaptopurine greater than about 7000 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.

26. The method of claim 25, wherein said immune-mediated gastrointestinal disorder is IBD.

27. The method of claim 26, wherein said subject having IBD is a pediatric subject.

28. The method of claim 25, wherein said immune-mediated gastrointestinal disorder is selected from the group consisting of lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease.

29. The method of claim 25, wherein said level of 6-thioguanine and said level of 6-methyl-mercaptopurine each is determined in red blood cells.

30. The method of claim 29, wherein said level is determined using high pressure liquid chromatography.

31. The method of claim 25, wherein said toxicity associated with said drug treatment is selected from the group consisting of hepatic toxicity and hematologic toxicity.

32. The method of claim 1, wherein said drug is selected from the group consisting of 6-mercaptopurine, azathioprine, 6-thioguanine, and 6-methylmercaptopurine riboside.

33. The method of claim 7, wherein said drug is selected from the group consisting of 6-mercaptopurine, azathioprine, 6-thioguanine, and 6-methylmercaptopurine riboside.

34. The method of claim 15, wherein said drug is selected from the group consisting of 6-mercaptopurine, azathioprine, 6-thioguanine, and 6-methylmercaptopurine riboside.

35. The method of claim 22, wherein said drug is selected from the group consisting of 6-mercaptopurine, azathioprine, 6-thioguanine, and 6-methylmercaptopurine riboside.

36. The method of claim 25, wherein said drug is selected from the group consisting of 6-mercaptopurine, azathioprine, 6-thioguanine, and 6-methylmercaptopurine riboside.

37. A method of optimizing therapeutic efficacy and reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

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- (a) administering a drug selected from the group consisting of 6-mercaptopurine, azathioprine, 6-thioguanine, and 6-methylmercaptopurine to a subject having said immune-mediated gastrointestinal disorder; and
 - (b) determining the level of 6-thioguanine or 6-methyl-mercaptopurine in said subject having said immune-mediated gastrointestinal disorder; 5
- wherein the level of 6-thioguanine less than about 230 pmol per 8×10^8 red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject, and 10
- wherein the level of 6-thioguanine greater than about 400 pmol per 8×10^8 red blood cells or a level of 6-methyl-mercaptopurine greater than about 7000 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject. 15
38. The method of claim 37, wherein said drug is 6-mercaptopurine.
39. The method of claim 37, wherein said drug is azathioprine. 20
40. The method of claim 37, wherein said immune-mediated gastrointestinal disorder is inflammatory bowel disease (IBD).
41. The method of claim 40, wherein said subject having IBD is a pediatric subject. 25
42. The method of claim 37, wherein said immune-mediated gastrointestinal disorder is selected from the group consisting of lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease. 30
43. The method of claim 37, wherein said level of 6-thioguanine and said level of 6-methyl-mercaptopurine each is determined in red blood cells. 35
44. The method of claim 43, wherein said level is determined using high pressure liquid chromatography.
45. The method of claim 37, wherein said toxicity associated with said drug treatment is selected from the group consisting of hepatic toxicity and hematologic toxicity. 40
46. A method of optimizing therapeutic efficacy and reducing toxicity associated with treatment of an immune-mediated gastrointestinal disorder, comprising:

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- (a) determining the level of 6-thioguanine or 6-methyl-mercaptopurine in a subject administered a drug selected from the group consisting of 6-mercaptopurine, azathioprine, 6-thioguanine, and 6-methylmercaptopurine, said subject having said immune-mediated gastrointestinal disorder;
- wherein the level of 6-thioguanine less than about 230 pmol per 8×10^8 red blood cells indicates a need to increase the, amount of said drug subsequently administered to said subject, and
- wherein the level of 6-thioguanine greater than about 400 pmol per 8×10^8 red blood cells or a level of 6-methyl-mercaptopurine greater than about 7000 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.
47. The method of claim 46, wherein said drug is 6-mercaptopurine. 20
48. The method of claim 46, wherein said drug is azathioprine.
49. The method of claim 46, wherein said immune-mediated gastrointestinal disorder is IBD. 25
50. The method of claim 47, wherein said subject having IBD is a pediatric subject.
51. The method of claim 46, wherein said immune-mediated gastrointestinal disorder is selected from the group consisting of lymphocytic colitis, microscopic colitis, collagenous colitis, autoimmune enteropathy, allergic gastrointestinal disease and eosinophilic gastrointestinal disease. 30
52. The method of claim 46, wherein said level of 6-thioguanine and said level of 6-methyl-mercaptopurine each is determined in red blood cells. 35
53. The method of claim 52, wherein said level is determined using high pressure liquid chromatography.
54. The method of claim 46, wherein said toxicity associated with said drug treatment is selected from the group consisting of hepatic toxicity and hematologic toxicity. 40

* * * * *

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

<hr/>		X
WHITSERVE LLC,	:	
	:	Civil Action No.
Plaintiff,	:	
	:	
v.	:	JURY DEMAND
	:	
DONUTS INC. and	:	
NAME.COM, INC.	:	
	:	
Defendants.	:	
<hr/>		X

COMPLAINT FOR INFRINGEMENT OF PATENTS

Plaintiff WhitServe LLC alleges as follows for its complaint against Donuts Inc. and Name.com, Inc.:

NATURE OF THE ACTION

1. This is a civil action arising under the Patent Laws of the United States, asserting infringement under 35 U.S.C. § 271 of Patent Nos. 5,895,468 and 6,182,078, and seeking damages and other relief under 35 U.S.C. §§ 283 – 285.

THE PARTIES

2. Plaintiff WhitServe LLC (“WhitServe”) is a Connecticut limited liability company with its principal place of business at 2009 Summer Street, Stamford, CT 06905.

3. Defendant, Donuts Inc. (“Donuts”) is a Delaware Corporation with its principal place of business at 5808 Lake Washington Blvd NE, Suite 300, Kirkland, WA 98033.

4. Defendant Name.com, Inc. (“Name.com”) is a Nevada corporation with its principal place of business at 5808 Lake Washington Blvd. NE, Suite 300, Kirkland, WA 98033.

JURISDICTION AND VENUE

5. The Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338.

6. The Court has personal jurisdiction over Donuts because it is incorporated in the State of Delaware and therefore is at home in this Judicial District.

7. The Court's venue is provided by 28 U.S.C. 1400(b). Donuts is incorporated in the State of Delaware and therefore reside in this Judicial District pursuant to 28 U.S.C. 1400(b).

8. Venue is proper pursuant to 28 U.S.C. § 1391(b) and (c) because Donuts resides in the District of Delaware because of its formation under the laws of Delaware, which subjects it to the personal jurisdiction of this Court.

9. The Court's personal jurisdiction over Name.com is provided because this action arises from Name.com's transacting of business in the State of Delaware, and related patent infringement. Name.com actively solicited business in this State. Name.com sold services to customers in Delaware through the commercial websites name.com, using their computer systems that infringed WhitServe's patents. Name.com used WhitServe's patents to generate and send important account information to customers in Delaware. At Name.com's invitation, customers in this State also accessed customer accounts on name.com, where they could buy and manage domain names and buy related services. That customer access involved additional patent infringement by Name.com.

10. The Court's venue is provided by 28 U.S.C. §§ 1391(c) and 1400(b). Name.com is subject to jurisdiction and has committed patent infringement in this District.

JOINDER OF DEFENDANTS

11. Name.com is a subsidiary of Donuts. Donuts manages Name.com and makes decisions on the common operation of the computer system that Name.com uses to infringe WhitServe patents, as further alleged below.

12. Joinder is proper because the infringement arises out of the same transaction, occurrence, or series of transactions or occurrences relating to the using in the United States of the same accused product or process, and questions of fact common to both defendants will arise in the action.

WHITSERVE'S PATENTS

13. WhitServe owns United States Patent Nos. 5,895,468 (“‘468 Patent”) and 6,182,078 (“‘078 Patent”), attached as Exhibits 1 and 2 (collectively “Patents”). The Patents were invented by WhitServe’s founder, Wesley W. Whitmyer, Jr. of Stamford. The ‘468 Patent issued on April 20, 1999. The ‘078 Patent is a continuation issued on January 30, 2001. The Patents share a common specification that was first filed on October 7, 1996.

14. WhitServe’s subsidiary, NetDocket LLC of Stamford, used the WhitServe Patents under license to operate a web-based, intellectual-property-management business, through the website netdocket.com.

15. Since 2006, WhitServe has granted licenses to the Patents to over twenty companies that have used the Patents in their businesses. The licensees are primarily in NetDocket’s field of intellectual-property management, and in Name.com’s field of domain-name registration.

16. The Patents also have been the subject of infringement cases against other infringers. Two of those cases resulted in several court decisions favorable to WhitServe.

17. From 2006 to 2014, WhitServe was in litigation against Computer Packages, Inc., in the case *WhitServe LLC v. Computer Packages, Inc.*, No. 3:06-cv-01935-AVC. The case included

a 2010 jury trial finding the Patents valid and willfully infringed, an appeal to the Federal Circuit affirming the defendant's liability but remanding for retrial of damages (694 F.3d 10 (Fed. Cir. 2012)), denial of a *writ of certiorari* on willful infringement, and finally a settlement at the 2014 retrial of damages.

18. From 2011 to 2015, WhitServe was in litigation against Name.com's competitor GoDaddy.com, in the case *WhitServe LLC v. GoDaddy.com, Inc.*, No. 3:11-cv-00948-JCH. The court orders favorable to WhitServe include: claim construction (April 2013); summary judgment on invalidity defenses under Sections 101, 102, 103, and 112, non-infringement defenses, and patent marking (May 2013); summary judgment on claim definiteness (65 F.Supp.3d 317 (D. Conn. 2014)); renewed motions on Section 101 and claim definiteness (Dec. 2014); and a trial on the defense of laches (2015 U.S. Dist. LEXIS 94341 (D. Conn. July 20, 2015)). The case settled in July 2015.

NAME.COM'S KNOWLEDGE OF THE WHITSERVE PATENTS

19. Name.com has been aware of the WhitServe Patents since at least 2012.

20. In 2012 and again in 2015, WhitServe gave notice of the claim of patent infringement to Name.com, but their infringement continued despite their knowledge of infringement of the WhitServe Patents.

NAME.COM'S INFRINGEMENT OF THE WHITSERVE PATENTS

21. Name.com has directly infringed the Patents in violation of 35 U.S.C. § 271(a). As described below, Name.com has used the patented inventions in their operation of the computer system that houses the website name.com.

22. Name.com has infringed at least claims 1 and 24 of the '468 Patent by making and using a computer system, and using an attendant process, to track and automatically remind

customers of the upcoming expiration dates of their domain name registrations, and to receive customer instructions for renewal of domains.

23. Name.com's computer system is a device that has all the elements of claim 1 of the '468 patent, as shown below. Their use of the system is the use of a method that has all of the elements of claim 24 of the '468 patent, as shown below.

24. Name.com's computer system includes "a computer", which means one or more computers. Name.com's networked computers include: database servers that store and maintain the patented data structures including "client reminders"; servers that execute searches of client reminders; web servers that receive instructions from clients' web browsers, and servers that assemble and transmit web pages to clients' browsers.

25. Name.com's computer system includes "a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto." "A database" means one or more. A "client reminder" has been interpreted by a court to mean a record containing information mapping an upcoming service for a client. Name.com's system has databases that record each client's services and pertinent dates. For example, the database contains millions of records that map the clients' identification, the clients' domain name registrations and other services, and the expiration dates for those registrations. The expiration dates reflect the need for upcoming renewal services provided by Name.com. The expiration dates are stored in date fields in the database servers, using values that represent the dates, and those values can be searched using database query software.

26. Name.com's computer system includes "software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder." "Automatically" has been interpreted by a court to mean "a process

that, once initiated, functions without further human intervention to accomplish functions or steps designated.” Name.com’s computer system is programmed to run searches of the above databases (automatically querying) by expiration date (values attributed to each client reminder date field) in order to identify and retrieve the records of domain-name registrations and other services that will be expiring at a specific time in the future (client reminders). For example, a client’s web browser can request a search of that client’s domain-name registrations that expire in 30 days; the Name.com system automatically searches by expiration date and retrieves the registrations that are expiring. Name.com’s system also runs queries by expiration date on its own, in order to send reminder emails to clients.

27. Name.com’s computer system includes “software executing on said computer for automatically generating a client response form based on the retrieved client reminder.” For example, Name.com servers automatically generate client response forms as web pages that display the client’s expiring domain-name registrations.

28. Name.com’s computer system has “a communication link between said computer and the Internet.” The system communicates with clients’ devices using the Internet.

29. Name.com’s computer system includes “software executing on said computer for automatically transmitting the client response form to the client through said communication link.” Name.com’s system transmits the above client response forms to the clients’ devices over the Internet, without human intervention.

30. Name.com’s computer system includes “software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.” From the web pages providing the client response forms, the client can send replies as

renewal instructions for the client's expiring domain names. When that occurs, the Name.com web servers automatically receive and process the renewal instructions, without human intervention.

31. Name.com has infringed at least claims 1, 3, 9, and 11 of the '078 Patent by making and using a computer system, and using an attendant process, to track and automatically remind customers of the upcoming expiration dates of their domain name registrations using webpages.

32. Name.com's computer system is a device that has all the elements of claims 1 and 3 of the '078 patent, as already shown above and repeated below. Their use of the system is the use of a method that has all of the elements of claims 9 and 11 of the '078 patent, as already shown above and repeated below.

33. Name.com's computer system includes "a computer", which means one or more computers. Name.com's networked computers include: database servers that store and maintain the patented data structures including "client reminders"; servers that execute searches of client reminders; web servers that receive instructions from clients' web browsers, and servers that assemble and transmit web pages to clients' browsers.

34. Name.com's computer system includes "a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto." "A database" means one or more. A "client reminder" has been interpreted by a court to mean a record containing information mapping an upcoming service for a client. Name.com's system has databases that record each client's services and pertinent dates. For example, the database contains millions of records that map the clients' identification, the clients' domain name registrations and other services, and the expiration dates for those registrations. The expiration dates reflect the need for upcoming renewal services provided by Name.com. The expiration dates are stored in date

fields in the database servers, using values that represent the dates, and those values can be searched using database query software.

35. Name.com's computer system includes "software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder." "Automatically" has been interpreted by a court to mean "a process that, once initiated, functions without further human intervention to accomplish functions or steps designated." Name.com's computer system is programmed to run searches of the above databases (automatically querying) by expiration date (values attributed to each client reminder date field) in order to identify and retrieve the records of domain-name registrations and other services that will be expiring at a specific time in the future (client reminders). For example, a client's web browser can request a search of that client's domain-name registrations that expire in 30 days; the Name.com system automatically searches by expiration date and retrieves the registrations that are expiring. Name.com's system also runs queries by expiration date on its own, in order to send reminder emails to clients.

36. Name.com's computer system includes "software executing on said computer for automatically generating a form based on the retrieved client reminder." For example, Name.com servers automatically generate forms as web pages that display the client's expiring domain-name registrations.

37. Name.com's computer system has "a communication link between said computer and the Internet." The system communicates with clients' devices using the Internet.

38. Name.com's computer system includes "software executing on said computer for automatically transmitting the form through said communication link." Name.com's system transmits the above forms to the clients' devices over the Internet, without human intervention.

39. Name.com's system generates and transmits the above forms to the clients' devices as webpages.

40. Name.com's infringement has injured WhitServe, and WhitServe is entitled to recover damages adequate to compensate for the infringement, in no event less than a reasonable royalty for the use of the patented inventions.

PRAYER FOR RELIEF

WHEREFORE, WhitServe prays for judgment as follows:

- A. Judgment that Donuts and Name.com has infringed both WhitServe Patents;
- B. An award of damages adequate to compensate WhitServe for the infringement, together with prejudgment interest from the date infringement of the WhitServe Patents began, pursuant to 35 U.S.C. § 284;
- C. An award of enhanced damages, pursuant to 35 U.S.C. § 284;
- D. A finding that this is an exceptional case, and an award of reasonable attorney fees, pursuant to 35 U.S.C. § 285;
- E. Any other and further relief that this Court may deem just and proper or otherwise permitted by law.

JURY DEMAND

WhitServe demands a trial by jury on all claims and issues so triable.

Respectfully submitted,

WhitServe LLC

Date: February 1, 2018

By: /s/Stamatios Stamoulis

Stamatios Stamoulis

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EXHIBIT 1



US005895468A

United States Patent [19]
Whitmyer, Jr.

[11] **Patent Number:** **5,895,468**
[45] **Date of Patent:** ***Apr. 20, 1999**

[54] **SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES**

5,758,328 5/1998 Giovannoli 705/26

[76] **Inventor:** **Wesley W. Whitmyer, Jr.**, 198 Old Kings Hwy. S., Darien, Conn. 06820

[*] **Notice:** This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] **Appl. No.:** **08/726,999**

[22] **Filed:** **Oct. 7, 1996**

[51] **Int. Cl.⁶** **G06F 17/30**

[52] **U.S. Cl.** **707/10; 707/501; 707/513; 705/26; 395/200.47; 395/200.48**

[58] **Field of Search** **707/9, 10, 513, 707/505-508, 501; 705/26, 1-9, 27; 395/200.33, 200.47, 200.48, 200.49**

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Primary Examiner—Thomas G. Black

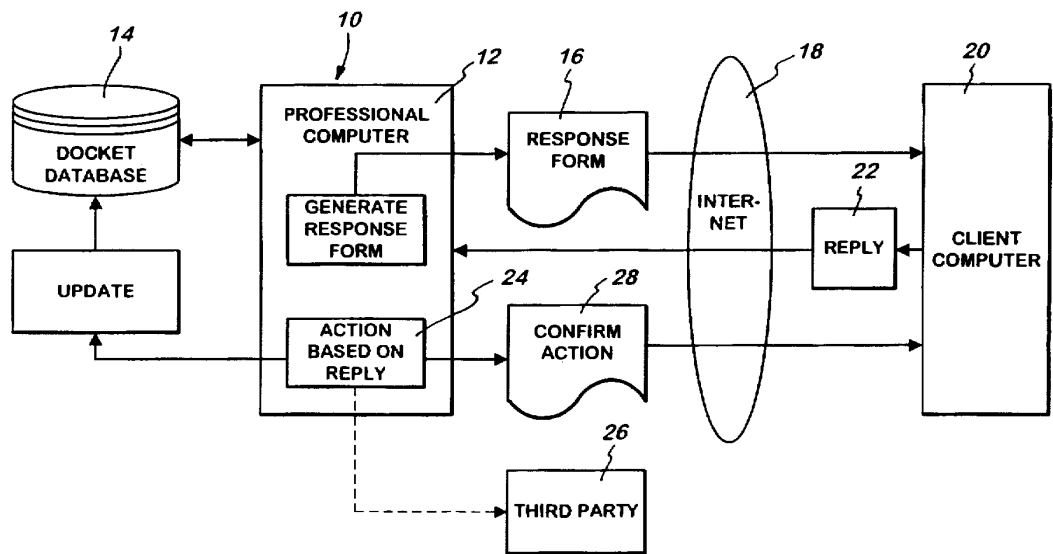
Assistant Examiner—Hosain T. Alam

Attorney, Agent, or Firm—St. Onge Steward Johnston & Reens LLC

[57] **ABSTRACT**

A device for automatically delivering professional services to a client is provided. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

27 Claims, 5 Drawing Sheets



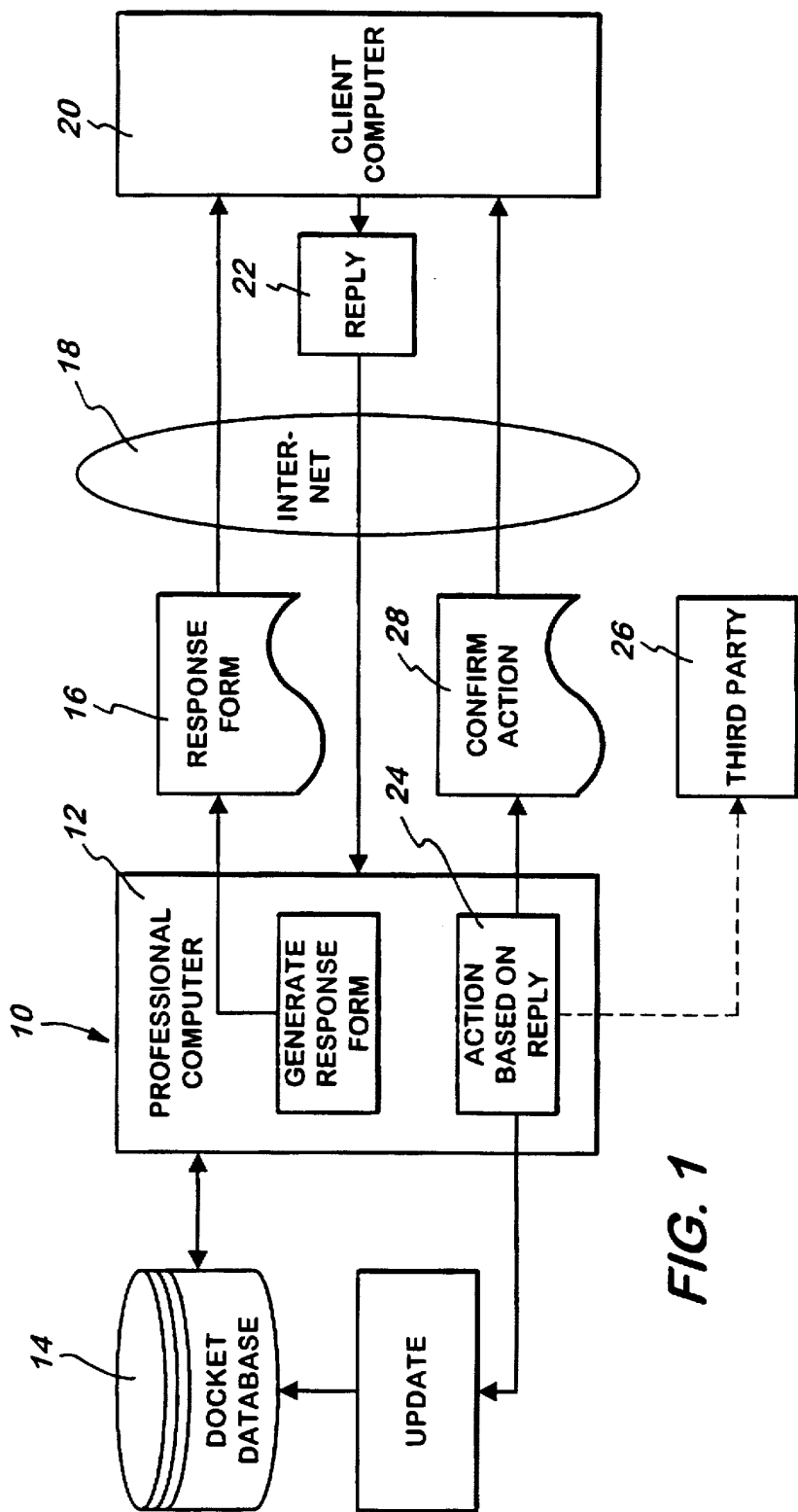


FIG. 1

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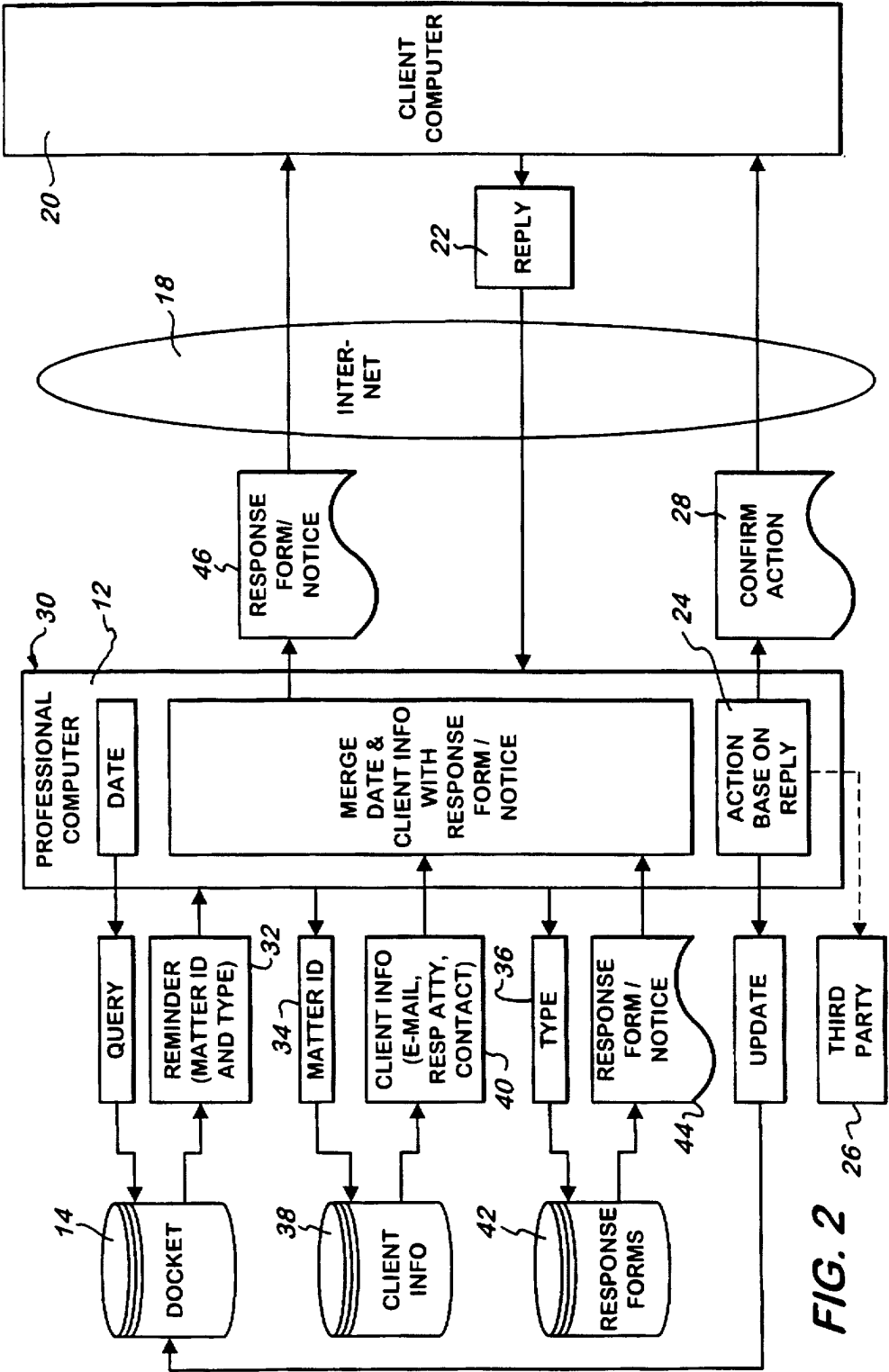
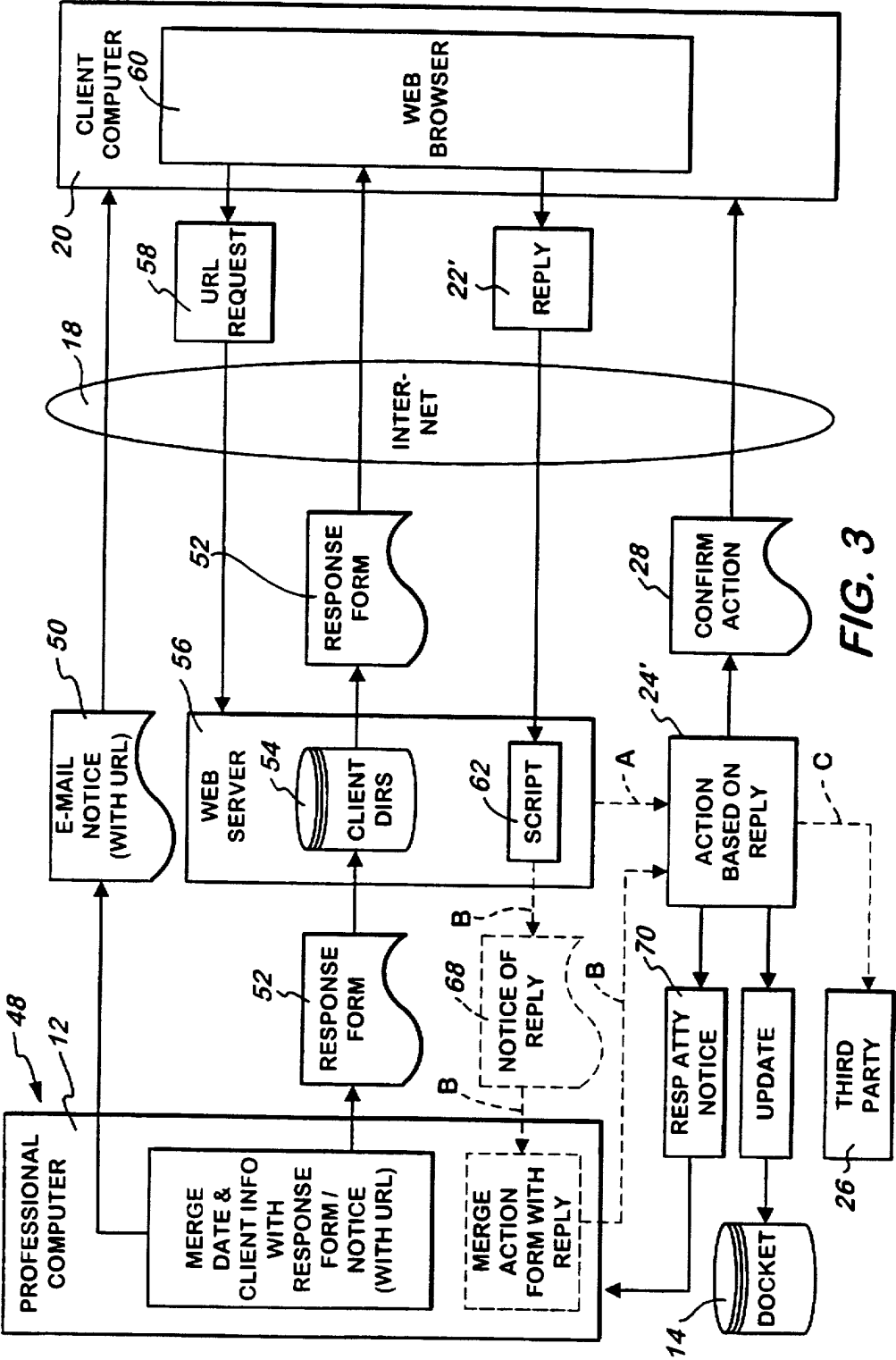


FIG. 2



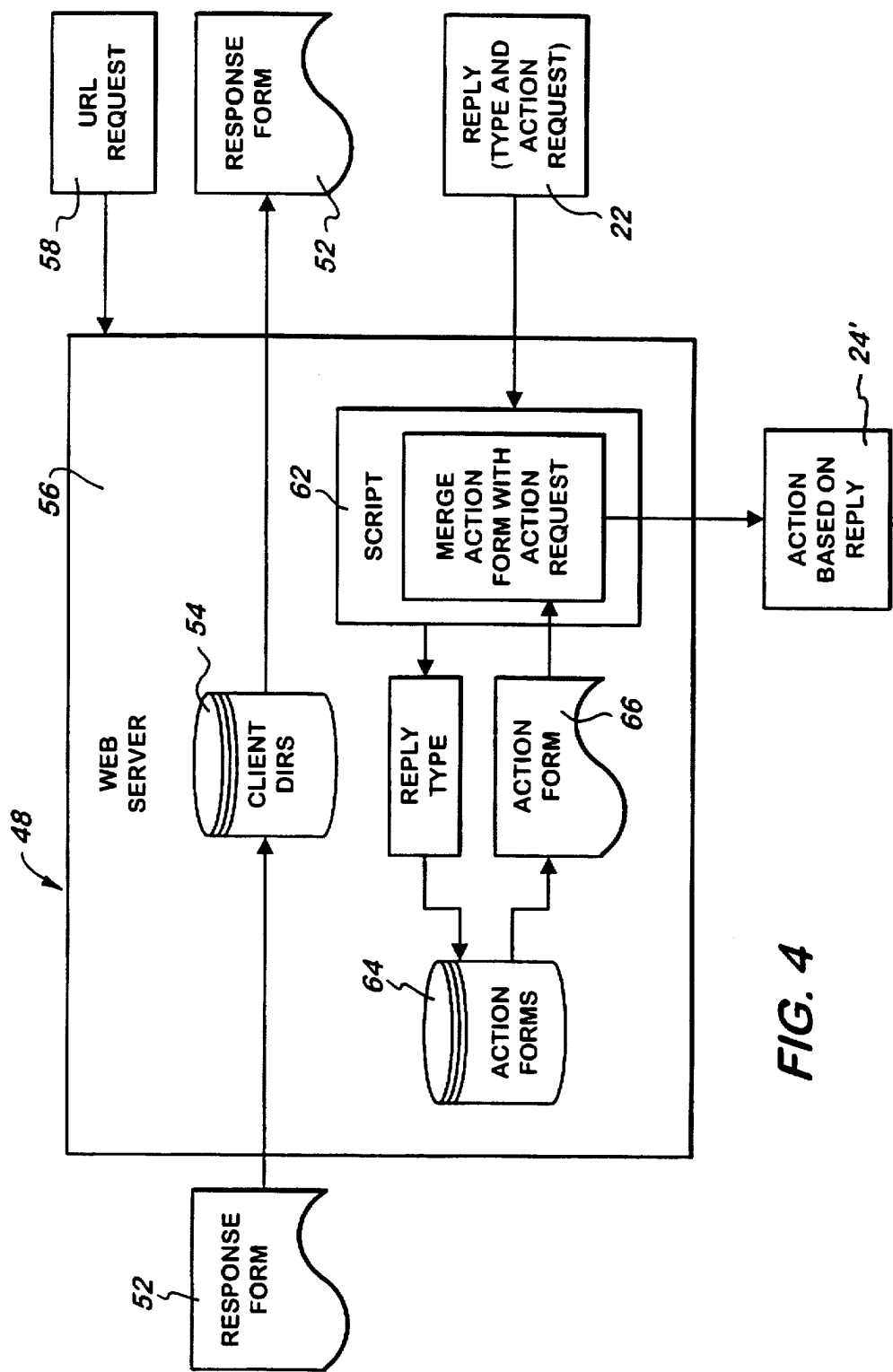


FIG. 4

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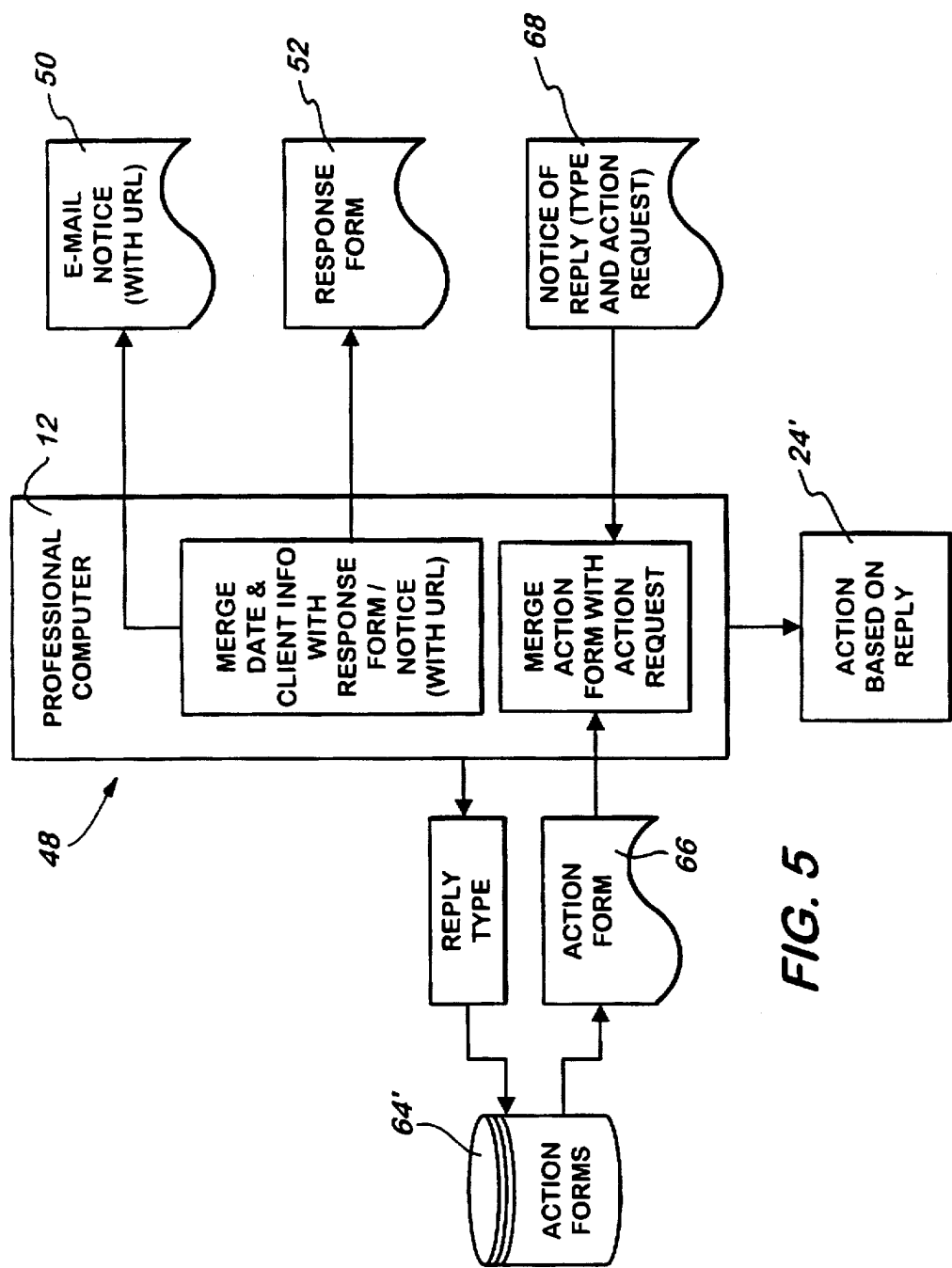


FIG. 5

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**SYSTEM AUTOMATING DELIVERY OF
PROFESSIONAL SERVICES**

FIELD OF THE INVENTION

The invention relates to an automated system for preparing reminders and soliciting replies for client due dates, and more particularly to a device and method which communicates reminders and receives replies over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern commu-

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nication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

Preferably, the device also includes software executing on the computer for automatically receiving a reply to the response form from the client through the communication link, for automatically generating a response based on the reply, and for automatically transmitting the response to a third party. The device also preferably includes software executing on the computer for automatically updating the database based on the reply, for automatically generating a confirmation based on the reply, and for transmitting the confirmation to the client through the communication link.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

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FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a response form 16 based on the retrieved client reminder and automatically transfers the response form 16 through an Internet communication link 18 to a client computer 20. The response form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

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Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment 30 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client email address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the response form/client notice 44, and automatically transmits the merged response form/client notice 46 by email through an Internet communication link 18 to a client computer 20. The merged response form/client notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged response form/client notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

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Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and response forms databases (not shown) to retrieve client information (not shown) and a response form/client notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the response form/client notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged response form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the response form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

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If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the confirmation 28 through the Internet communication link 18 to the client computer 20.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

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a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

2. The device of claim 1 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

3. The device of claim 2 further comprising software executing on said computer for automatically updating said database based on the reply.

4. The device of claim 3 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

5. A device for automatically delivering professional services to a client comprising:

- a computer;
- a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;
- software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;
- a client information database containing a plurality of client information;
- software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;
- a forms database containing a plurality of response forms;
- software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a response form;
- software executing on said computer for automatically merging the date and the client information with the response form;
- a communication link between said computer and the Internet;
- software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,
- software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

6. The device of claim 5 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

7. The device of claim 6 further comprising software executing on said computer for automatically updating said database based on the reply.

8. The device of claim 7 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

9. A device for automatically delivering professional services to a client comprising:

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a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL;

a web server;

software executing on said computer for automatically transmitting the client response form to said web server and for automatically transmitting the notice to the client; and,

software executing on said web server for automatically transmitting the response form to the client when the URL is activated and for automatically receiving a reply to the response form from the client.

10. The device of claim 9 further comprising software executing on said web server for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

11. The device of claim 10 further comprising software executing on said web server for automatically updating said database based on the reply.

12. The device of claim 11 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

13. The device of claim 9 further comprising:

- software executing on said web server for automatically generating a notice of reply based on the reply, and for automatically transmitting the notice of reply to said computer; and
- software executing on said computer for automatically receiving the notice of reply from said web server.

14. The device of claim 13 further comprising software executing on said computer for automatically generating a response based on the notice of reply, and for automatically transmitting the response to a third party.

15. The device of claim 14 further comprising software executing on said computer for automatically updating said database based on the notice of reply.

16. The device of claim 15 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

17. The device of claim 9 wherein said database comprises a docket database containing a plurality of client reminders, each of the client reminders including a matter identification number and a type of reminder identification, and wherein said software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL comprises:

- a client information database containing a plurality of client information;
- software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;
- a response forms database containing a plurality of response forms;
- software executing on said computer for automatically querying said response forms database by the type of reminder identifier to retrieve a response form;

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software executing on said computer for automatically merging the date and the client information with the response form; and,

software executing on said computer for automatically merging the date and the client information with a notice, the notice containing a URL.

18. The device of claim 17 wherein the reply to the response form contains an action type and an action request, and further comprising;

an action forms database containing a plurality of action forms;

software executing on said web server for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

19. The device of claim 18 further comprising software executing on said web server for automatically updating said docket database based on the reply.

20. The device of claim 19 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

21. The device of claim 17 further comprising:

software executing on said web server for automatically generating a notice of reply, the notice of reply containing an action type and an action request, and for automatically transmitting the notice of reply to said computer;

an action forms database containing a plurality of action forms;

software executing on said computer for automatically receiving the notice of reply from said web server, for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

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22. The device of claim 21 further comprising software executing on said computer for automatically updating said docket database based on the notice of reply.

23. The device of claim 22 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

24. A method for automatically delivering professional services to a client comprising the steps of:

providing a computer;

providing a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

querying said database by the values attributed to each client reminder date field to retrieve a client reminder; generating a client response form from the retrieved client reminder;

establishing a communication link between said computer and the Internet;

transmitting said client response form to the client through said communication link; and,

receiving a reply to the response form from the client through said communication link.

25. The method of claim 24 further comprising the steps of:

generating a response based on the reply; and

transmitting the response to a third party.

26. The method of claim 25 further comprising the step of updating said database based on the reply.

27. The method of claim 26 further comprising the steps of:

generating a confirmation based on the reply; and

transmitting the confirmation to the client through said communication link.

* * * * *

EXHIBIT 2

(12) **United States Patent**
Whitmyer, Jr.

(10) **Patent No.: US 6,182,078 B1**
(45) **Date of Patent: *Jan. 30, 2001**

(54) **SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET**

(76) Inventor: **Wesley W. Whitmyer, Jr.**, 198 Old Kings Hwy., Darien, CT (US) 06820

(*) Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

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This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/453,728**

(22) Filed: **Dec. 2, 1999**

Related U.S. Application Data

(63) Continuation of application No. 09/237,521, filed on Jan. 27, 1999, now Pat. No. 6,049,801, which is a continuation-in-part of application No. 08/726,999, filed on Oct. 7, 1996, now Pat. No. 5,895,468.

(51) **Int. Cl.**⁷ **G06F 17/30**

(52) **U.S. Cl.** **707/10; 707/501; 707/513; 705/26; 709/217; 709/218**

(58) **Field of Search** **707/1-3, 10, 104, 707/8, 9, 200-203, 501, 513; 709/201-203, 217-219; 705/26**

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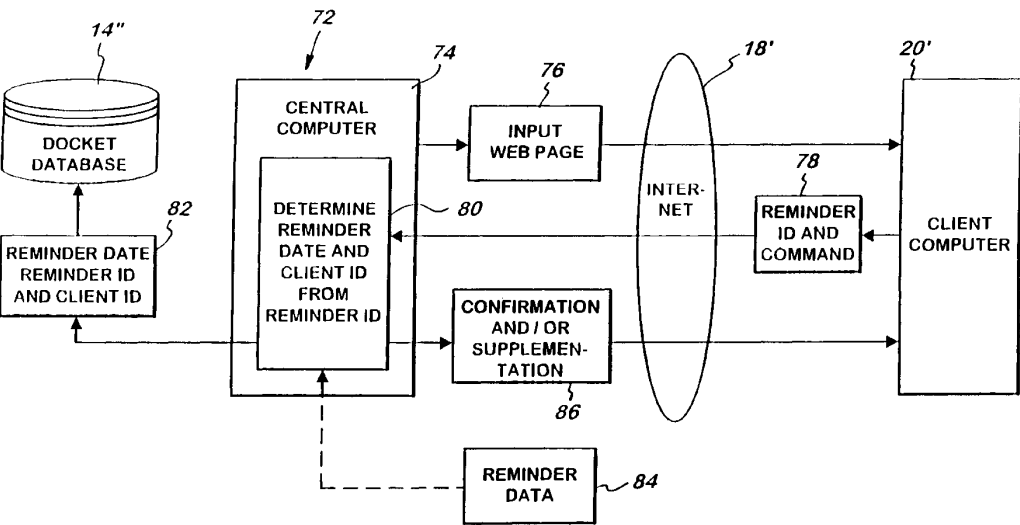
(57) **ABSTRACT**

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11 Claims, 7 Drawing Sheets



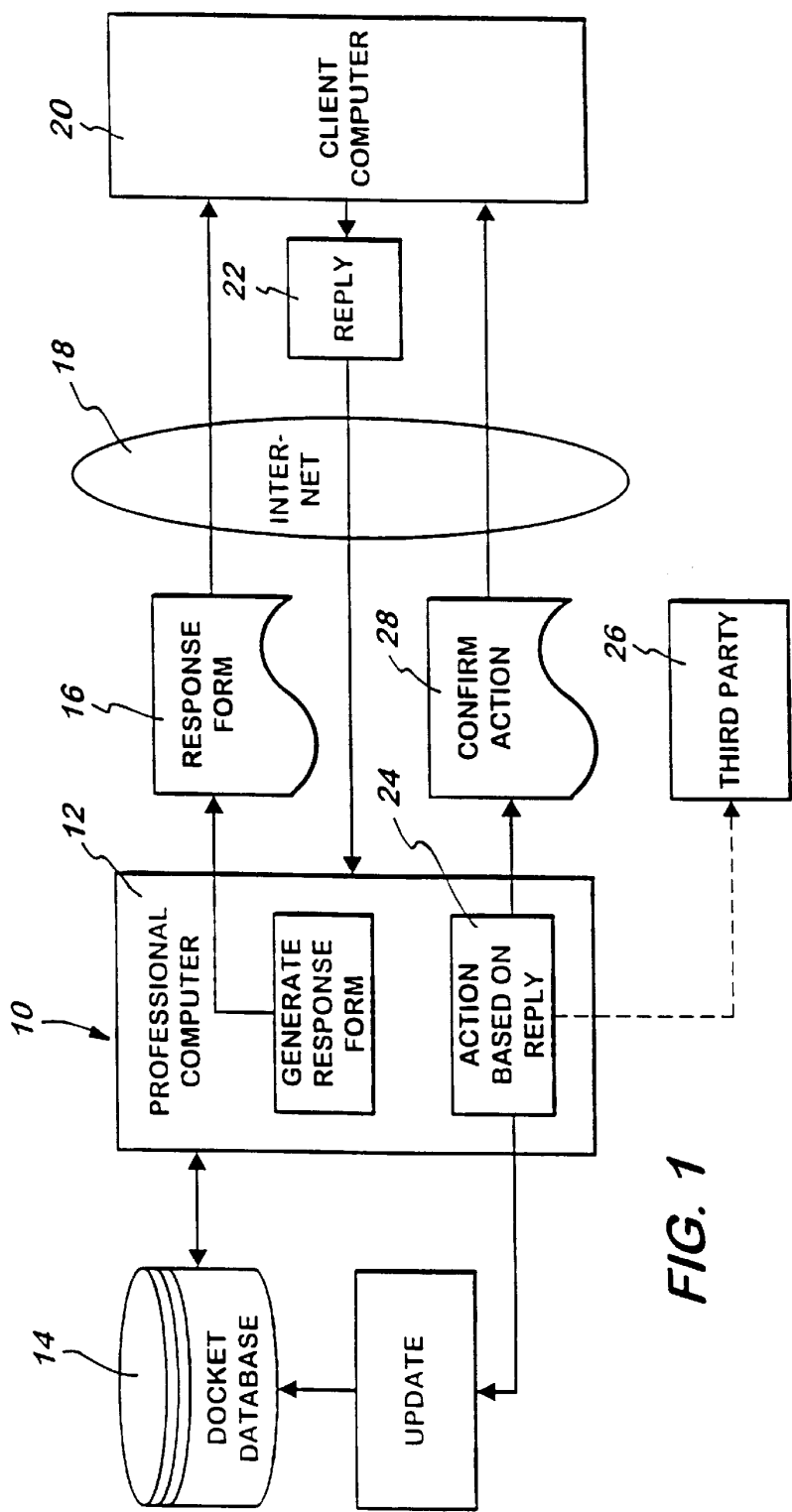
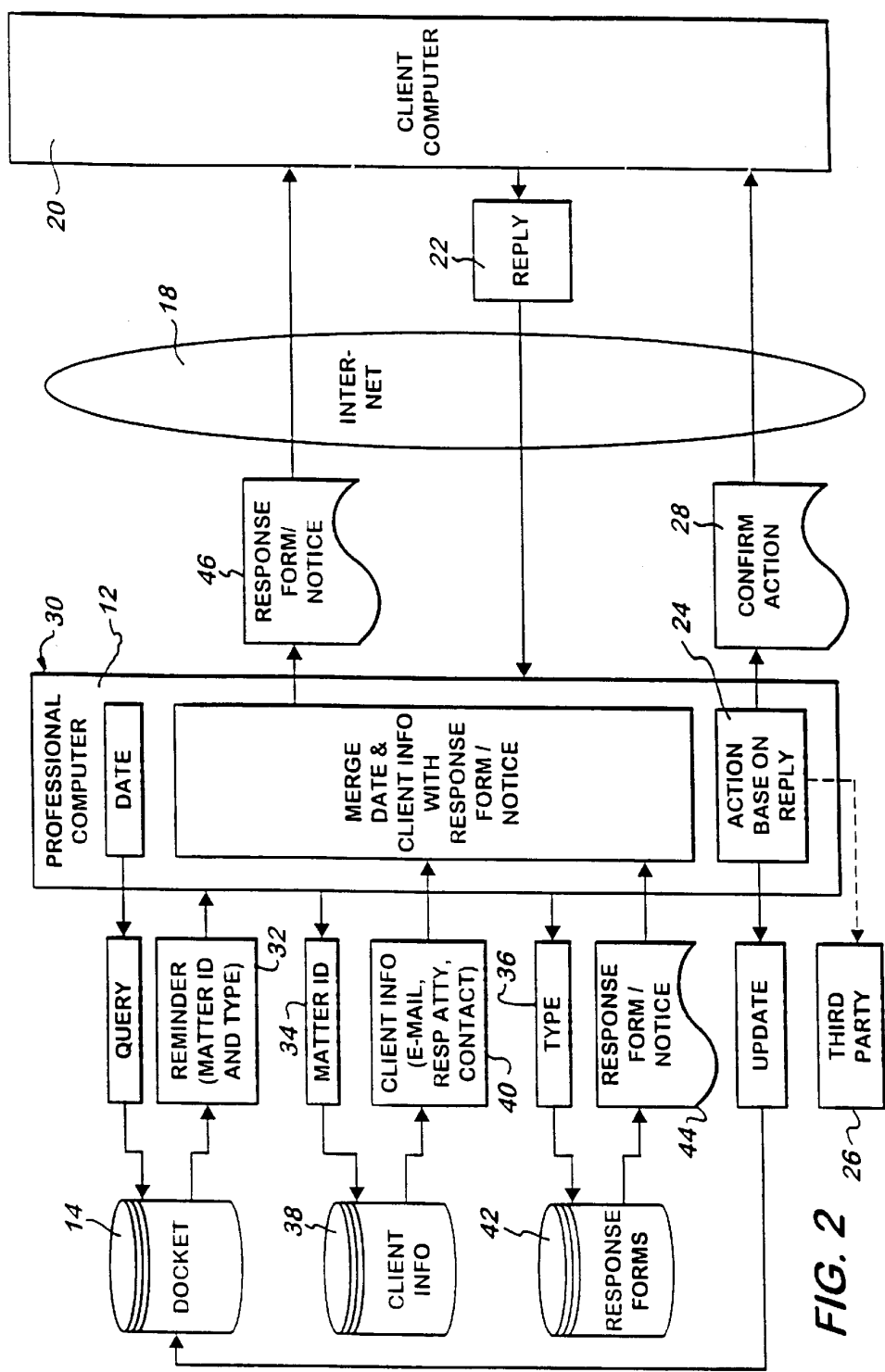
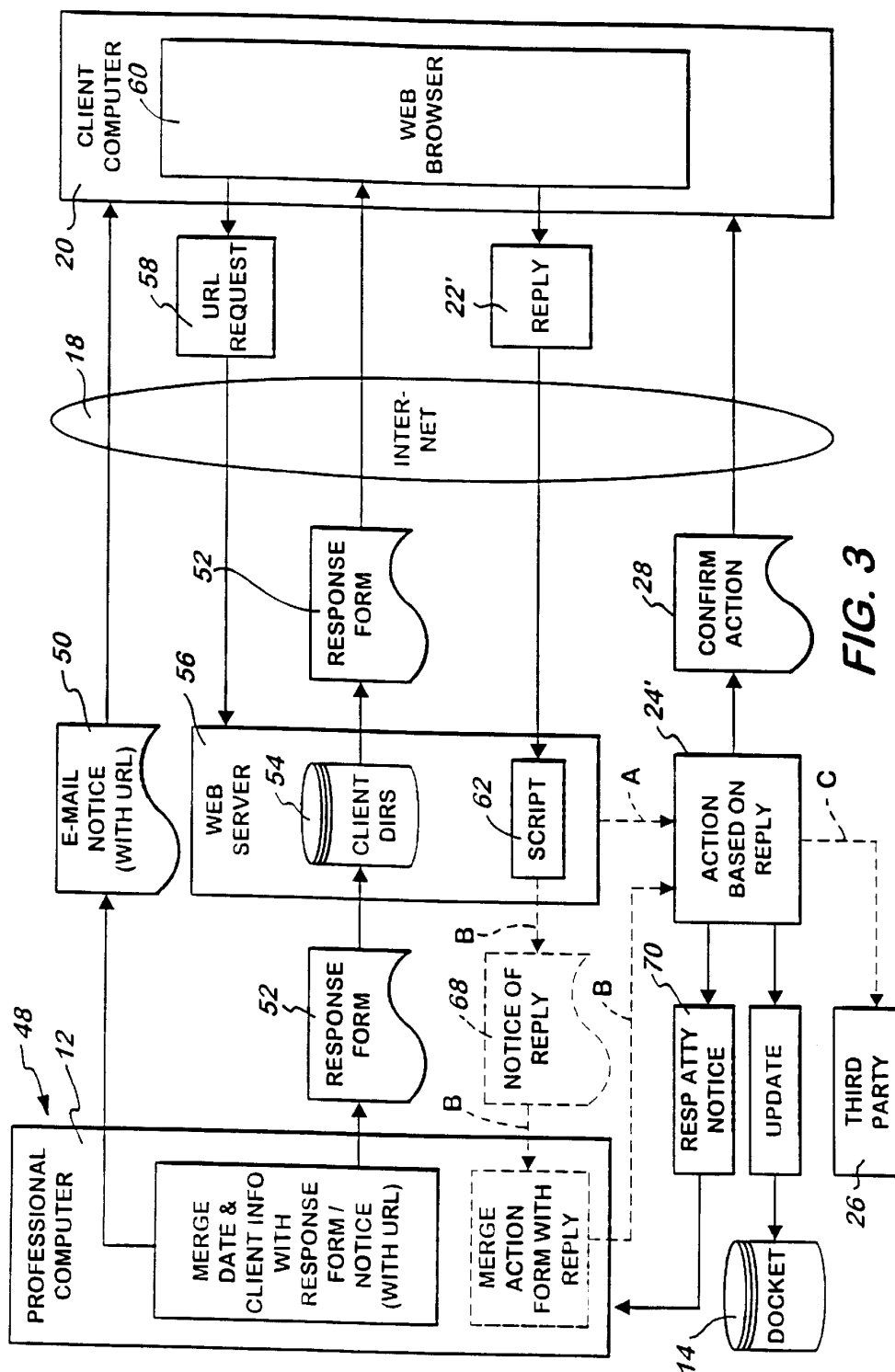


FIG. 1





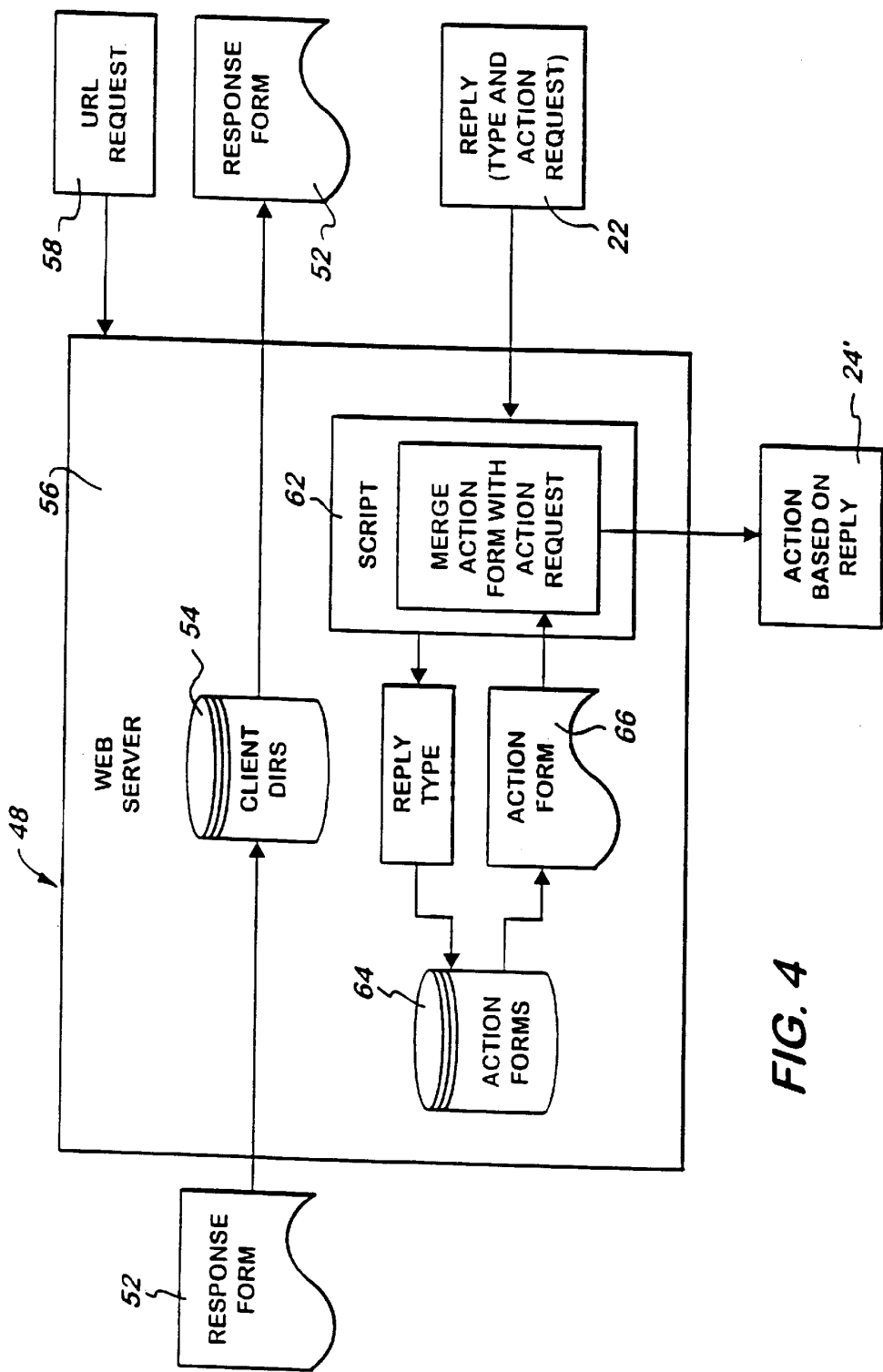


FIG. 4

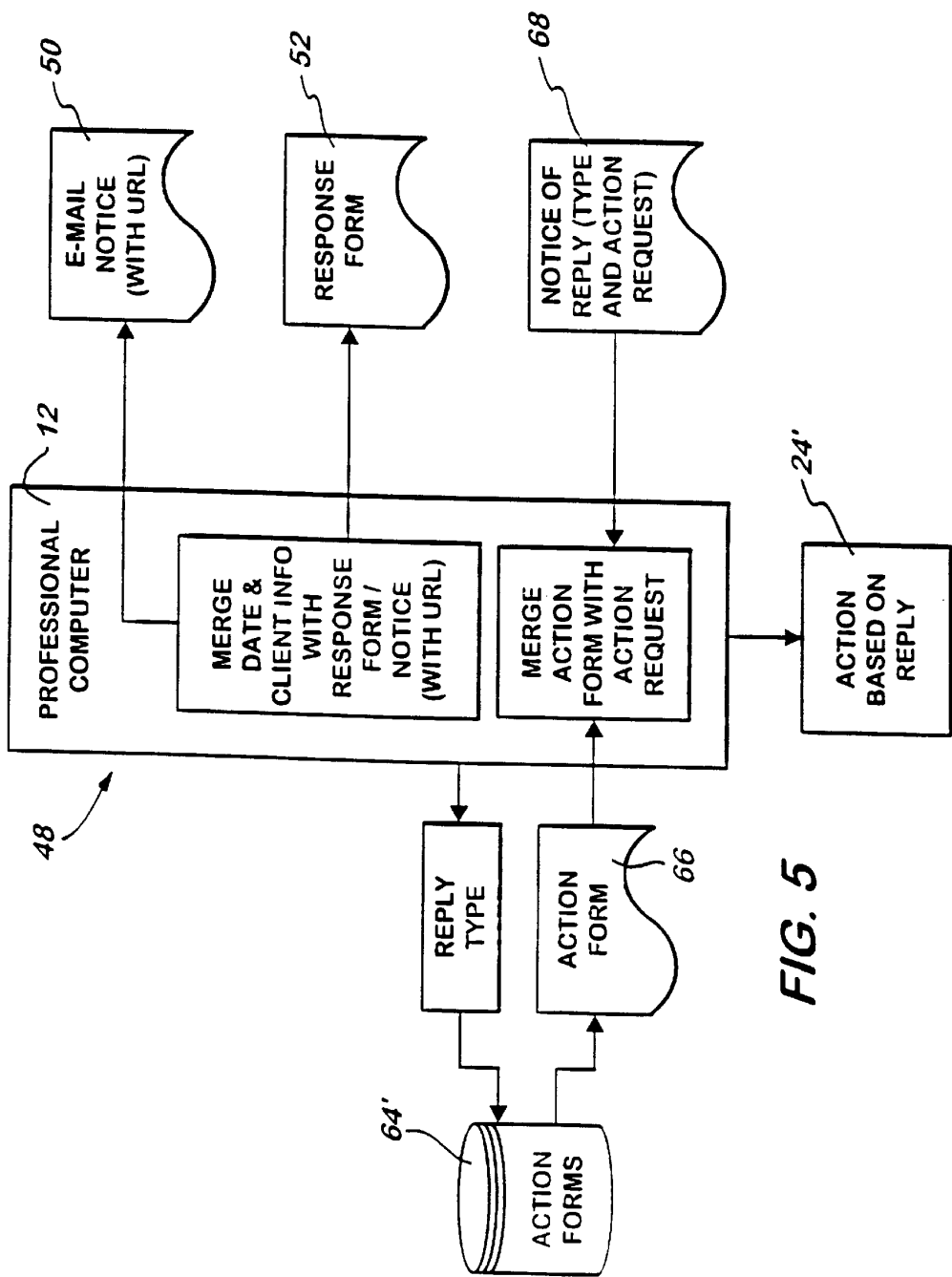
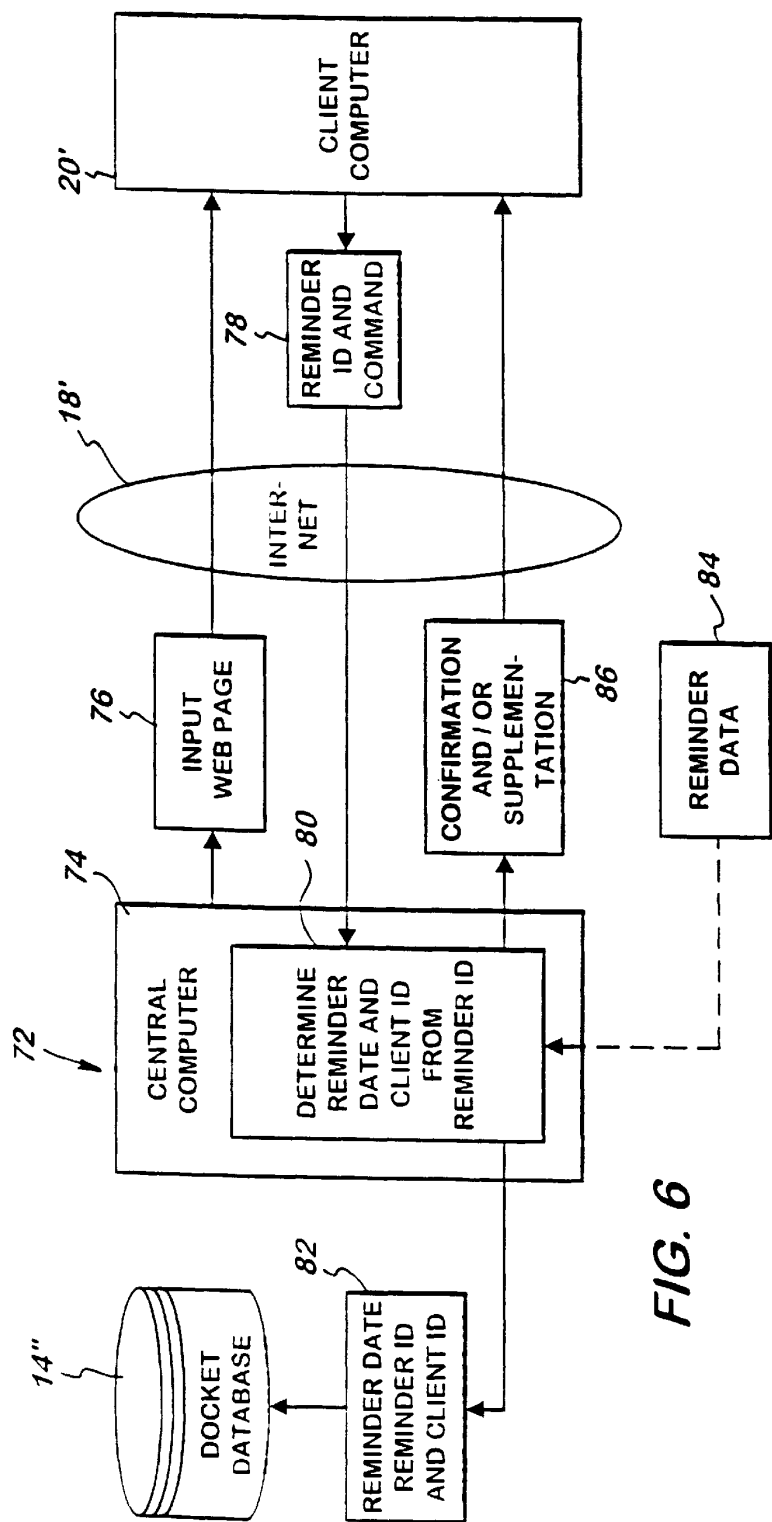


FIG. 5



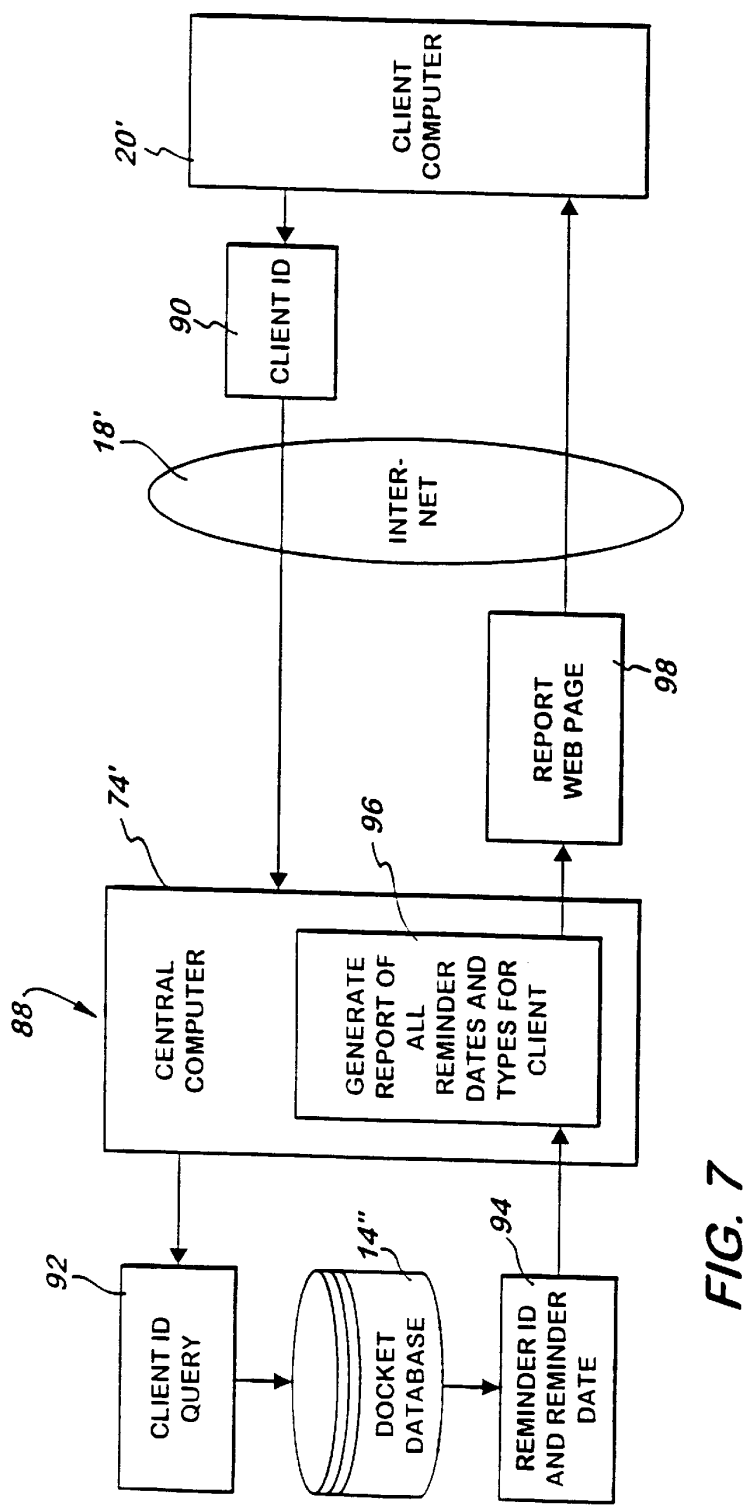


FIG. 7

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SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET

This application is a continuation of U.S. patent application Ser. No. 09/237,521 filed Jan. 27, 1999, now U.S. Pat. No. 6,049,801 which is itself a continuation-in-part of U.S. patent application Ser. No. 08/726,999, filed Oct. 7, 1996, now U.S. Pat. No. 5,895,468 issued Apr. 20, 1999.

FIELD OF THE INVENTION

The invention relates to a system for delivering professional services over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication

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using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern communication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

In one currently prevailing business model, the professional firm or service bureau maintains a docket database on behalf of a client or clients. A disadvantage of this approach is that the client does not have direct access over his/its data.

In another current approach, typically used by large corporations, the client has direct access and control over his/its data, but also must take responsibility for its security and accuracy, by maintaining hardware and software, and by proofing and reviewing the data as well as changes, e.g. in dates, fees and the like due to changes in the law of foreign jurisdictions.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client. An automated system which provides clients with control over, but not responsibility for the data is also desired.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

Still yet another object of the invention is to provide a web site permitting clients direct access to the docket database used to automate providing of professional services on their behalf.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a form based on the retrieved client reminder, and for auto-

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matically transmitting the form to the client through a communication link between the computer and the Internet.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 6 is a block diagram of a web site permitting direct client entry of reminders to the automated system of FIG. 1.

FIG. 7 is a block diagram of a web site enabling direct client reporting of reminders on the automated system of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a form 16 based on the retrieved client reminder and automatically transfers the form 16 through an Internet communication link 18 to a client computer 20. The form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs

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some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client e-mail address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the form/notice 44, and automatically transmits the merged form/notice 46 by email through an Internet communication link 18 to a client computer 20. The merged form/notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged form/notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and

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performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and forms databases (not shown) to retrieve client information (not shown) and a form/notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the form/notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the

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professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26. If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the

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confirmation **28** through the Internet communication link **18** to the client computer **20**.

Referring now to FIG. 6, a web site **72** is shown which permits direct client entry of reminders to the automated system for delivering professional services. Web site **72** includes a central computer **74** and a database **14**" which is accessible by central computer **74**. Software executing on central computer **74** generates an input web page **76** which can be retrieved by a client computer **20**', preferably but not necessarily through the Internet **18**'. The client enters a reminder identifier, a command for management of the reminder, and if desired, a request to perform a professional service, and then transfers this information **78** back to central computer **74**, again preferably through the Internet **18**'. The reminder identifier is indicative of a particular matter for which the professional is responsible. For example, in the case of an intellectual property attorney, the reminder identifier may include an intellectual property identifier, which may be a patent number or a trademark number. The command for management of the reminder may be, for example, a command to add data to the reminder, delete data in the reminder, or modify data in the reminder. The request to perform a professional service may include, in the intellectual property attorney example, a request for payment of an annuity or maintenance fee, or a request to file an intellectual property application.

The information **78** supplied by the client is received by central computer **74**, which has software **80** executing thereon for determining a reminder date and client identifier from the reminder identifier. The reminder date, reminder identifier and client identifier are then stored (indicated as **82**) on docket database **14**", thereby adding to, deleting from, or modifying the existing reminders stored on database **14**". Preferably, web site **72** includes a data source **84** which is used by software **80** to supplement and confirm the reminder identifier entered by the client before updating docket database **14**". Data source **84** may include, for example, a source of intellectual property data, including such data as the filing date and/or registration date of the intellectual property identifier, for confirming and/or supplementing the intellectual property identifier. Data source **84** may also include information such as the cost of the professional service requested. Preferably, software **80** generates a message **86** confirming and/or supplementing the reminder identifier entered by the client and transmits message **86** to client computer **20**' through the Internet **18**'.

Referring now to FIG. 7, a web site **88** is shown which enables direct client reporting of reminders on the automated system for delivering professional services. A client identifier **90** is entered by a client and transferred from client computer **20**' to central computer **74**' preferably, but not necessarily, through the Internet **18**'. Central computer **74**' uses client identifier **90** to query (shown as **92**) docket database **14**", which returns to central computer **74**' all reminder identifiers and reminder dates **94** associated with client identifier **90**. Software **96** executing on central computer **74**' generates a report of all reminder dates and reminder types returned by database **14**", generates a report web page **98**, and transfers report web page **98** to client computer **20**' preferably through the Internet **18**'. The report generated by software **96** may be organized by client identifier only, or may be organized by client identifier and then by client reference if such a client reference is sent at **90** with client identifier.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements

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or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

a computer;
a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a form based on the retrieved client reminder;

a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

2. The device of claim 1 wherein the form is an email message.

3. The device of claim 2 wherein the form is a web page.

4. A device for automatically delivering professional services comprising:

a computer;
a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a forms database containing a plurality of forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a form;

software executing on said computer for automatically merging the date and the client information with the form;

a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

5. The device of claim 4 where in the form is an email message.

6. The device of claim 4 wherein the form is a web page.

7. A device for automatically delivering professional services comprising:

a computer;
a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

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software executing on said computer for automatically
generating a form and a notice based on the retrieved
client reminder, the notice containing a URL;
a web server;
software executing on said computer for automatically 5
transmitting the form to said web server and for auto-
matically transmitting the notice; and,
software executing on said web server for automatically
transmitting the form when the URL is activated. 10

8. The device of claim **7** when the notice is an email
message.

9. A method for automatically delivering professional
services comprising the steps of:

providing a computer;

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providing a database containing a plurality of client
reminders, each of the client reminders including a date
field having a value attributed thereto;
querying said database by the values attributed to each
client reminder date field to retrieve a client reminder;
generating a form from the retrieved client reminder;
establishing a communication link between said computer
and the Internet; and

transmitting said form through said communication link.

10. The method of claim **9** where in the generating step
further comprises generating an email message.

11. The method of claim **9** wherein the generating step
further comprises generating a web page.

* * * * *

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

I. (a) PLAINTIFFS

WhitServe LLC
2009 Summer Street
Stamford, CT 06905

(b) County of Residence of First Listed Plaintiff **Fairfield County, CT**
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys (Firm Name, Address, and Telephone Number)
Stamatios Stamoulis, Stamoulis & Weinblatt LLC
Two Fox Point Centre, 6 Denny Road, Suite 307
Wilmington, DE 19809; (302) 999-1540

DEFENDANTS

Donuts, Inc. and Name.com, Inc.
5808 Lake Washington Boulevard NE, Suite 300
Kirkland, WA 98033

County of Residence of First Listed Defendant **New Castle County**
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- | | PTF | DEF | | PTF | DEF |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)

Click here for: [Nature of Suit Code Descriptions.](#)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES	
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excludes Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury <input type="checkbox"/> 362 Personal Injury - Medical Malpractice	PERSONAL INJURY <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 367 Health Care/Pharmaceutical Personal Injury Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 690 Other LABOR <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Management Relations <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 751 Family and Medical Leave Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Employee Retirement Income Security Act IMMIGRATION <input type="checkbox"/> 462 Naturalization Application <input type="checkbox"/> 465 Other Immigration Actions	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input checked="" type="checkbox"/> 830 Patent <input type="checkbox"/> 835 Patent - Abbreviated New Drug Application <input type="checkbox"/> 840 Trademark SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	<input type="checkbox"/> 375 False Claims Act <input type="checkbox"/> 376 Qui Tam (31 USC 3729(a)) <input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 850 Securities/Commodities Exchange <input type="checkbox"/> 890 Other Statutory Actions <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 896 Arbitration <input type="checkbox"/> 899 Administrative Procedure Act/Review or Appeal of Agency Decision <input type="checkbox"/> 950 Constitutionality of State Statutes
REAL PROPERTY <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	CIVIL RIGHTS <input type="checkbox"/> 440 Other Civil Rights <input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 445 Amer. w/Disabilities - Employment <input type="checkbox"/> 446 Amer. w/Disabilities - Other <input type="checkbox"/> 448 Education	PRISONER PETITIONS Habeas Corpus: <input type="checkbox"/> 463 Alien Detainee <input type="checkbox"/> 510 Motions to Vacate Sentence <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty Other: <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition <input type="checkbox"/> 560 Civil Detainee - Conditions of Confinement			

V. ORIGIN (Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from Another District (specify)
- ☐ 6 Multidistrict Litigation - Transfer
- ☐ 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):
35 U.S.C. § 271; 35 U.S.C. §§ 283 – 285

Brief description of cause:

Patent infringement in violation of 35 U.S.C. § 271

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER RULE 23, F.R.Cv.P.

DEMAND \$

CHECK YES only if demanded in complaint:

JURY DEMAND: ☒ Yes ☐ No

VIII. RELATED CASE(S) IF ANY

(See instructions):

JUDGE

DOCKET NUMBER filed concurrently

DATE

02/01/2018

SIGNATURE OF ATTORNEY OF RECORD

/s/Stamatios Stamoulis

FOR OFFICE USE ONLY

RECEIPT #

AMOUNT

APPLYING IFP

JUDGE

MAG. JUDGE

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

<hr/>		X
WHITSERVE LLC,	:	
	:	Civil Action No.
Plaintiff,	:	
	:	
v.	:	JURY DEMAND
	:	
ENOM, LLC	:	
	:	
Defendant.	:	
<hr/>		X

COMPLAINT FOR INFRINGEMENT OF PATENTS

Plaintiff WhitServe LLC alleges as follows for its complaint against eNom, LLC:

NATURE OF THE ACTION

1. This is a civil action arising under the Patent Laws of the United States, asserting infringement under 35 U.S.C. § 271 of Patent Nos. 5,895,468 and 6,182,078, and seeking damages and other relief under 35 U.S.C. §§ 283 – 285.

THE PARTIES

2. Plaintiff WhitServe LLC (“WhitServe”) is a Connecticut limited liability company with its principal place of business at 2009 Summer Street, Stamford, CT 06905.

3. Defendant eNom, LLC (“eNom”) is a Delaware corporation with its principal place of business at 5808 Lake Washington Blvd. NE, Suite 300, Kirkland, WA 98033.

JURISDICTION AND VENUE

4. The Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338.

5. The Court has personal jurisdiction over eNom because it is incorporated in the State of Delaware and therefore is at home in this Judicial District.

6. The Court's venue is provided by 28 U.S.C. 1400(b). eNom is incorporated in the State of Delaware and therefore reside in this Judicial District pursuant to 28 U.S.C. 1400(b).

7. Venue is proper pursuant to 28 U.S.C. § 1391(b) and (c) because eNom resides in the District of Delaware because of its formation under the laws of Delaware, which subjects it to the personal jurisdiction of this Court.

WHITSERVE'S PATENTS

8. WhitServe owns United States Patent Nos. 5,895,468 ("468 Patent") and 6,182,078 ("078 Patent"), attached as Exhibits 1 and 2 (collectively "Patents"). The Patents were invented by WhitServe's founder, Wesley W. Whitmyer, Jr. of Stamford. The '468 Patent issued on April 20, 1999. The '078 Patent is a continuation issued on January 30, 2001. The Patents share a common specification that was first filed on October 7, 1996.

9. WhitServe's subsidiary, NetDocket LLC of Stamford, used the WhitServe Patents under license to operate a web-based, intellectual-property-management business, through the website netdocket.com.

10. Since 2006, WhitServe has granted licenses to the Patents to over twenty companies that have used the Patents in their businesses. The licensees are primarily in NetDocket's field of intellectual-property management, and in eNom's field of domain-name registration.

11. The Patents also have been the subject of infringement cases against other infringers. Two of those cases resulted in several court decisions favorable to WhitServe.

12. From 2006 to 2014, WhitServe was in litigation against Computer Packages, Inc., in the case *WhitServe LLC v. Computer Packages, Inc.*, No. 3:06-cv-01935-AVC. The case included a 2010 jury trial finding the Patents valid and willfully infringed, an appeal to the Federal Circuit affirming the defendant's liability but remanding for retrial of damages (694 F.3d 10 (Fed. Cir.

2012)), denial of a *writ of certiorari* on willful infringement, and finally a settlement at the 2014 retrial of damages.

13. From 2011 to 2015, WhitServe was in litigation against eNom's competitor GoDaddy.com, in the case *WhitServe LLC v. GoDaddy.com, Inc.*, No. 3:11-cv-00948-JCH. The court orders favorable to WhitServe include: claim construction (April 2013); summary judgment on invalidity defenses under Sections 101, 102, 103, and 112, non-infringement defenses, and patent marking (May 2013); summary judgment on claim definiteness (65 F.Supp.3d 317 (D. Conn. 2014)); renewed motions on Section 101 and claim definiteness (Dec. 2014); and a trial on the defense of laches (2015 U.S. Dist. LEXIS 94341 (D. Conn. July 20, 2015)). The case settled in July 2015.

ENOM'S KNOWLEDGE OF THE WHITSERVE PATENTS

14. eNom has been aware of the WhitServe Patents since at least 2012.

15. In 2012 and again in 2015, WhitServe gave notice of the claim of patent infringement to eNom, but their infringement continued despite their knowledge of infringement of the WhitServe Patents.

ENOM'S INFRINGEMENT OF THE WHITSERVE PATENTS

16. eNom has directly infringed the Patents in violation of 35 U.S.C. § 271(a). As described below, eNom has used the patented inventions in their operation of the computer system that houses the website enom.com.

17. eNom has infringed at least claims 1 and 24 of the '468 Patent by making and using a computer system, and using an attendant process, to track and automatically remind customers of the upcoming expiration dates of their domain name registrations, and to receive customer instructions for renewal of domains.

18. eNom's computer system is a device that has all the elements of claim 1 of the '468 patent, as shown below. Their use of the system is the use of a method that has all of the elements of claim 24 of the '468 patent, as shown below.

19. eNom's computer system includes "a computer", which means one or more computers. eNom's networked computers include: database servers that store and maintain the patented data structures including "client reminders"; servers that execute searches of client reminders; web servers that receive instructions from clients' web browsers, and servers that assemble and transmit web pages to clients' browsers.

20. eNom's computer system includes "a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto." "A database" means one or more. A "client reminder" has been interpreted by a court to mean a record containing information mapping an upcoming service for a client. eNom's system has databases that record each client's services and pertinent dates. For example, the database contains millions of records that map the clients' identification, the clients' domain name registrations and other services, and the expiration dates for those registrations. The expiration dates reflect the need for upcoming renewal services provided by eNom. The expiration dates are stored in date fields in the database servers, using values that represent the dates, and those values can be searched using database query software.

21. eNom's computer system includes "software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder." "Automatically" has been interpreted by a court to mean "a process that, once initiated, functions without further human intervention to accomplish functions or steps designated." eNom's computer system is programmed to run searches of the above databases

(automatically querying) by expiration date (values attributed to each client reminder date field) in order to identify and retrieve the records of domain-name registrations and other services that will be expiring at a specific time in the future (client reminders). For example, a client's web browser can request a search of that client's domain-name registrations that expire in 30 days; the eNom system automatically searches by expiration date and retrieves the registrations that are expiring. eNom's system also runs queries by expiration date on its own, in order to send reminder emails to clients.

22. eNom's computer system includes "software executing on said computer for automatically generating a client response form based on the retrieved client reminder." For example, eNom servers automatically generate client response forms as web pages that display the client's expiring domain-name registrations.

23. eNom's computer system has "a communication link between said computer and the Internet." The system communicates with clients' devices using the Internet.

24. eNom's computer system includes "software executing on said computer for automatically transmitting the client response form to the client through said communication link." eNom's system transmits the above client response forms to the clients' devices over the Internet, without human intervention.

25. eNom's computer system includes "software executing on said computer for automatically receiving a reply to the response form from the client through said communication link." From the web pages providing the client response forms, the client can send replies as renewal instructions for the client's expiring domain names. When that occurs, the eNom web servers automatically receive and process the renewal instructions, without human intervention.

26. eNom has infringed at least claims 1, 3, 9, and 11 of the '078 Patent by making and using a computer system, and using an attendant process, to track and automatically remind customers of the upcoming expiration dates of their domain name registrations using webpages.

27. eNom's computer system is a device that has all the elements of claims 1 and 3 of the '078 patent, as already shown above and repeated below. Their use of the system is the use of a method that has all of the elements of claims 9 and 11 of the '078 patent, as already shown above and repeated below.

28. eNom's computer system includes "a computer", which means one or more computers. eNom's networked computers include: database servers that store and maintain the patented data structures including "client reminders"; servers that execute searches of client reminders; web servers that receive instructions from clients' web browsers, and servers that assemble and transmit web pages to clients' browsers.

29. eNom's computer system includes "a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto." "A database" means one or more. A "client reminder" has been interpreted by a court to mean a record containing information mapping an upcoming service for a client. eNom's system has databases that record each client's services and pertinent dates. For example, the database contains millions of records that map the clients' identification, the clients' domain name registrations and other services, and the expiration dates for those registrations. The expiration dates reflect the need for upcoming renewal services provided by eNom. The expiration dates are stored in date fields in the database servers, using values that represent the dates, and those values can be searched using database query software.

30. eNom's computer system includes "software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder." "Automatically" has been interpreted by a court to mean "a process that, once initiated, functions without further human intervention to accomplish functions or steps designated." eNom's computer system is programmed to run searches of the above databases (automatically querying) by expiration date (values attributed to each client reminder date field) in order to identify and retrieve the records of domain-name registrations and other services that will be expiring at a specific time in the future (client reminders). For example, a client's web browser can request a search of that client's domain-name registrations that expire in 30 days; the eNom system automatically searches by expiration date and retrieves the registrations that are expiring. eNom's system also runs queries by expiration date on its own, in order to send reminder emails to clients.

31. eNom's computer system includes "software executing on said computer for automatically generating a form based on the retrieved client reminder." For example, eNom servers automatically generate forms as web pages that display the client's expiring domain-name registrations.

32. eNom's computer system has "a communication link between said computer and the Internet." The system communicates with clients' devices using the Internet.

33. eNom's computer system includes "software executing on said computer for automatically transmitting the form through said communication link." eNom's system transmits the above forms to the clients' devices over the Internet, without human intervention.

34. eNom's system generates and transmits the above forms to the clients' devices as webpages.

35. eNom's infringement has injured WhitServe, and WhitServe is entitled to recover damages adequate to compensate for the infringement, in no event less than a reasonable royalty for the use of the patented inventions.

PRAYER FOR RELIEF

WHEREFORE, WhitServe prays for judgment as follows:

- A. Judgment that eNom has infringed both WhitServe Patents;
- B. An award of damages adequate to compensate WhitServe for the infringement, together with prejudgment interest from the date infringement of the WhitServe Patents began, pursuant to 35 U.S.C. § 284;
- C. An award of enhanced damages, pursuant to 35 U.S.C. § 284;
- D. A finding that this is an exceptional case, and an award of reasonable attorney fees, pursuant to 35 U.S.C. § 285;
- E. Any other and further relief that this Court may deem just and proper or otherwise permitted by law.

JURY DEMAND

WhitServe demands a trial by jury on all claims and issues so triable.

Respectfully submitted,

WhitServe LLC

Date: February 1, 2018

By: /s/Stamatios Stamoulis

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EXHIBIT 1



US005895468A

United States Patent [19]
Whitmyer, Jr.

[11] **Patent Number:** **5,895,468**
[45] **Date of Patent:** ***Apr. 20, 1999**

[54] **SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES**

5,758,328 5/1998 Giovannoli 705/26

[76] **Inventor:** **Wesley W. Whitmyer, Jr.**, 198 Old Kings Hwy. S., Darien, Conn. 06820

[*] **Notice:** This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] **Appl. No.:** **08/726,999**

[22] **Filed:** **Oct. 7, 1996**

[51] **Int. Cl.⁶** **G06F 17/30**

[52] **U.S. Cl.** **707/10; 707/501; 707/513; 705/26; 395/200.47; 395/200.48**

[58] **Field of Search** **707/9, 10, 513, 707/505-508, 501; 705/26, 1-9, 27; 395/200.33, 200.47, 200.48, 200.49**

[56] **References Cited**

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Primary Examiner—Thomas G. Black

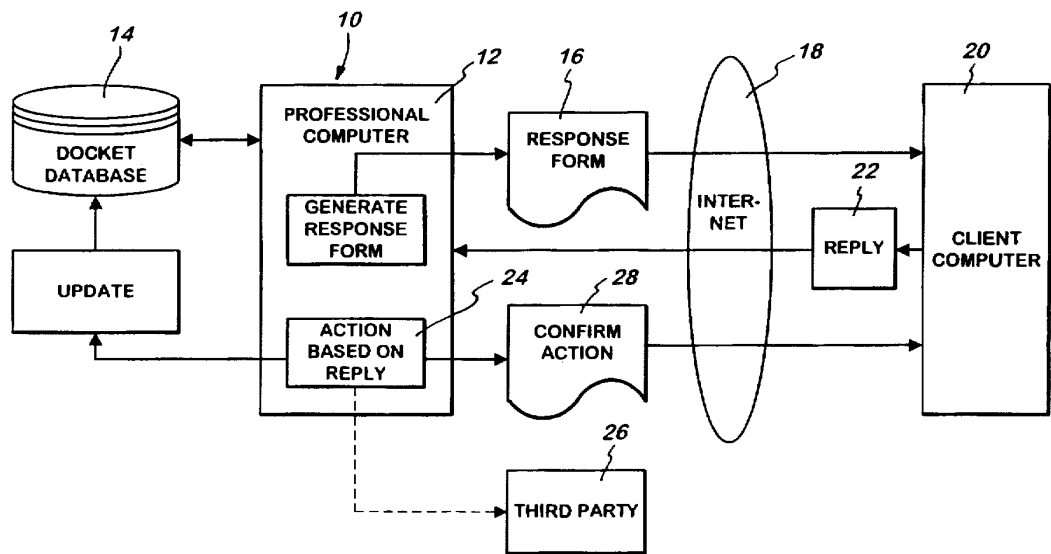
Assistant Examiner—Hosain T. Alam

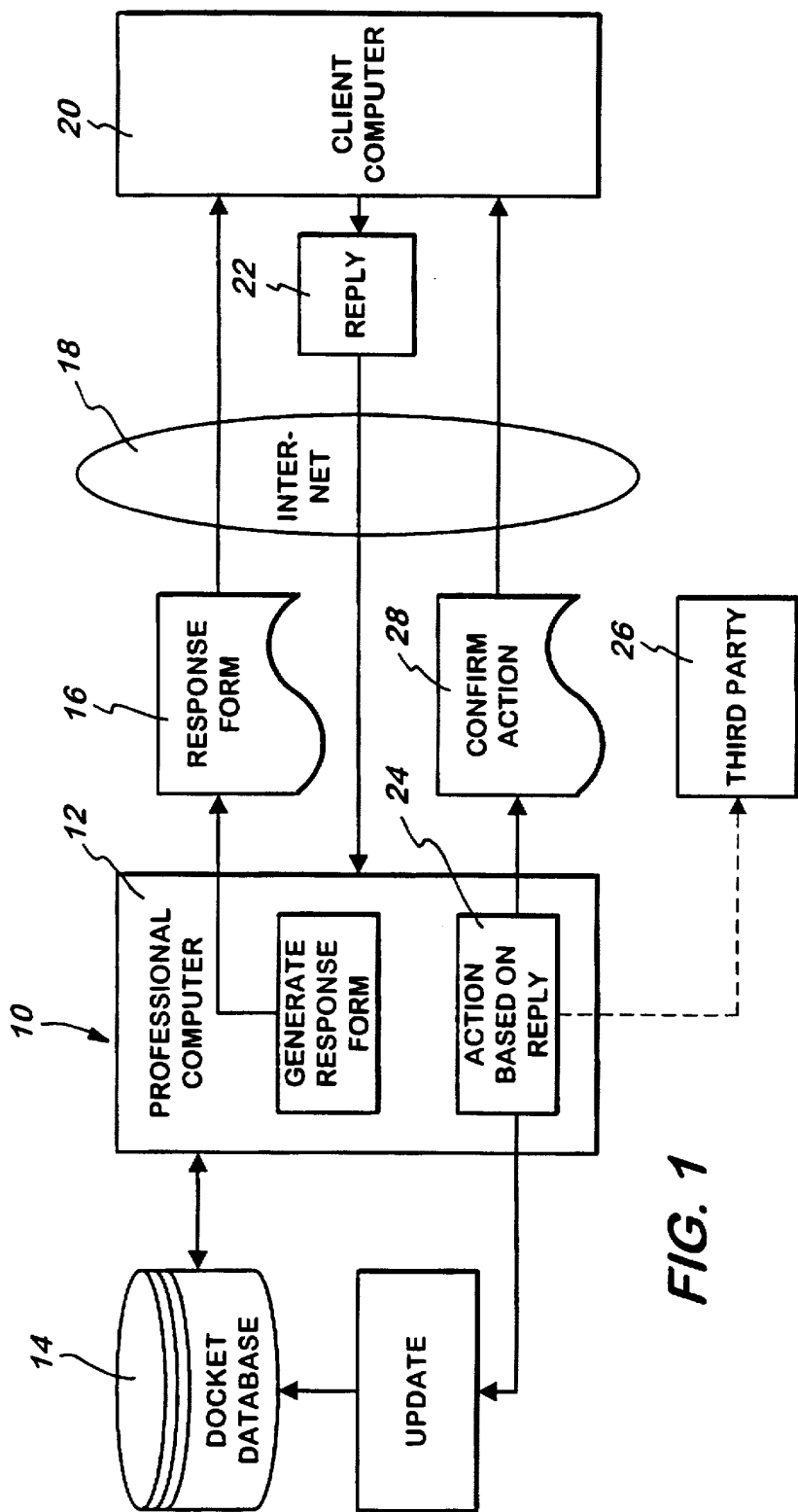
Attorney, Agent, or Firm—St. Onge Steward Johnston & Reens LLC

[57] **ABSTRACT**

A device for automatically delivering professional services to a client is provided. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

27 Claims, 5 Drawing Sheets





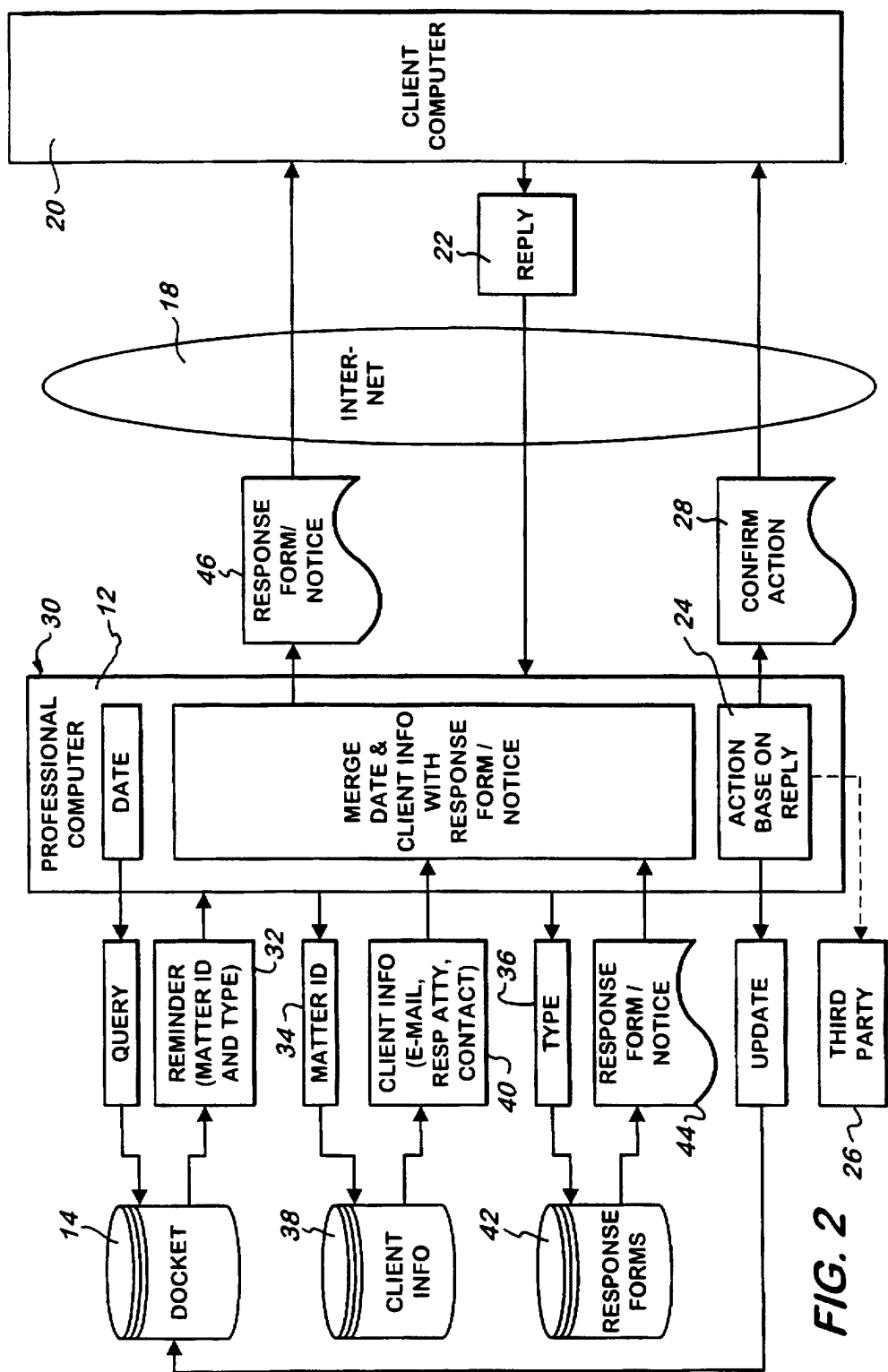
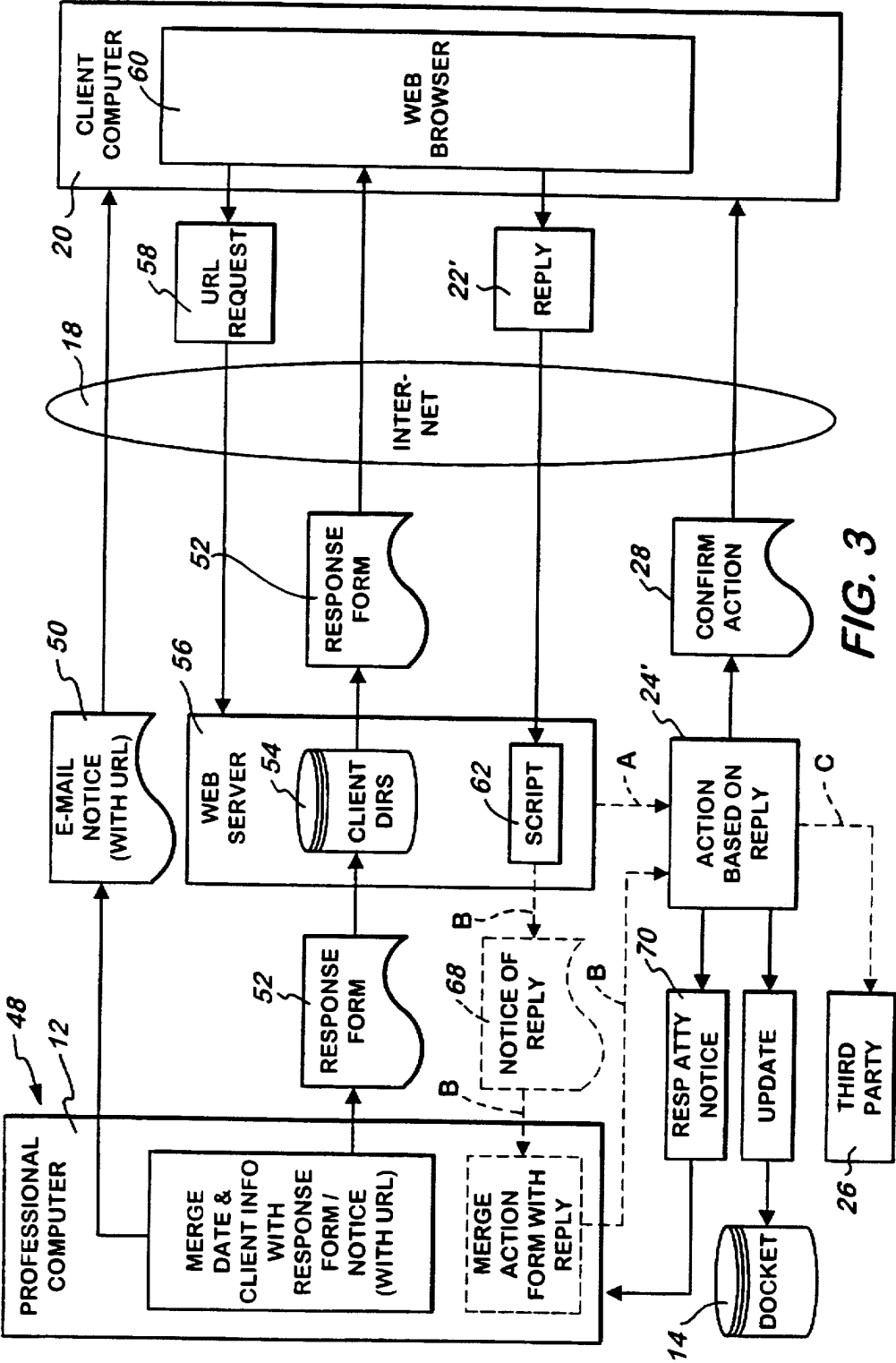


FIG. 2



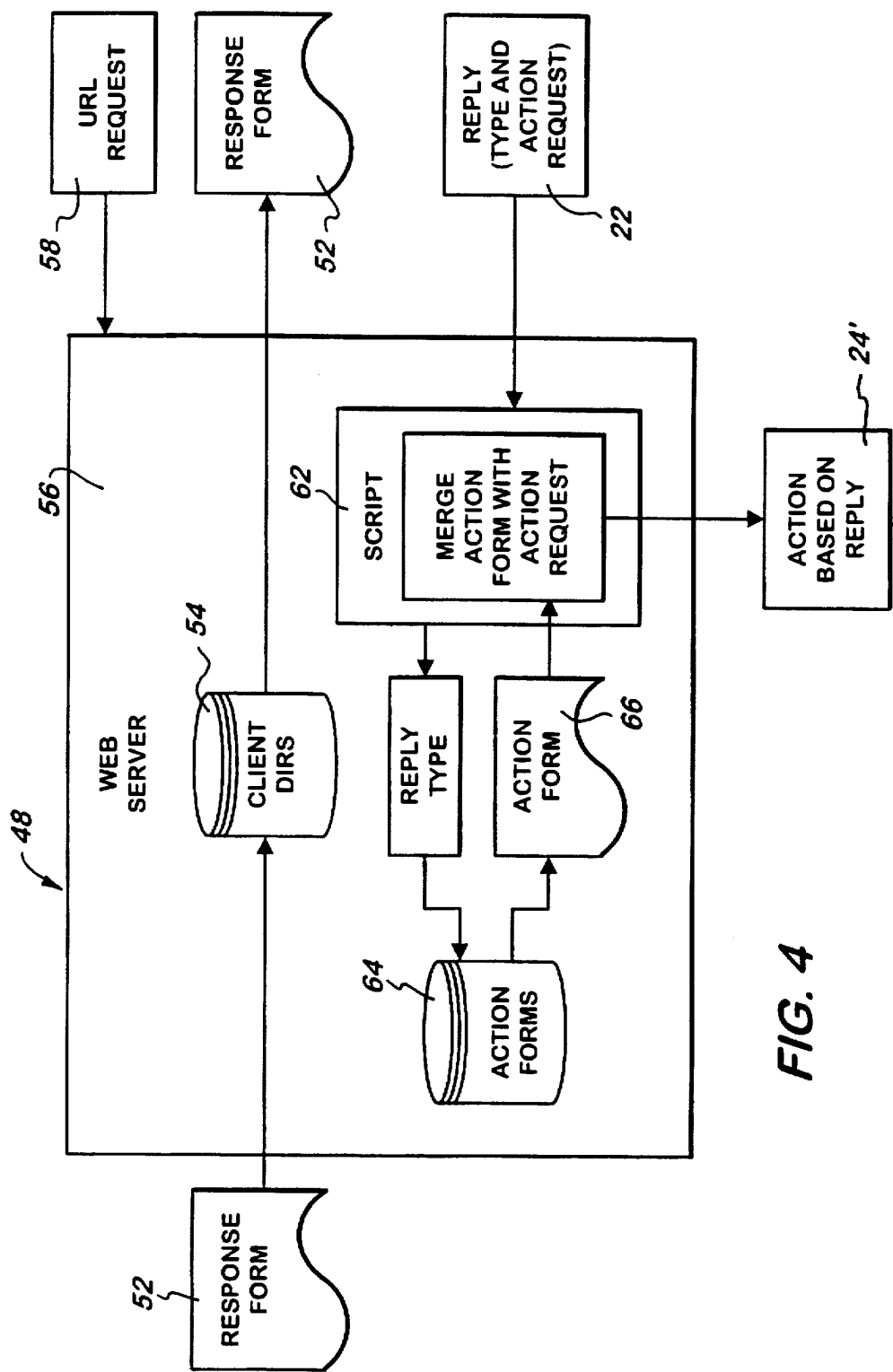


FIG. 4

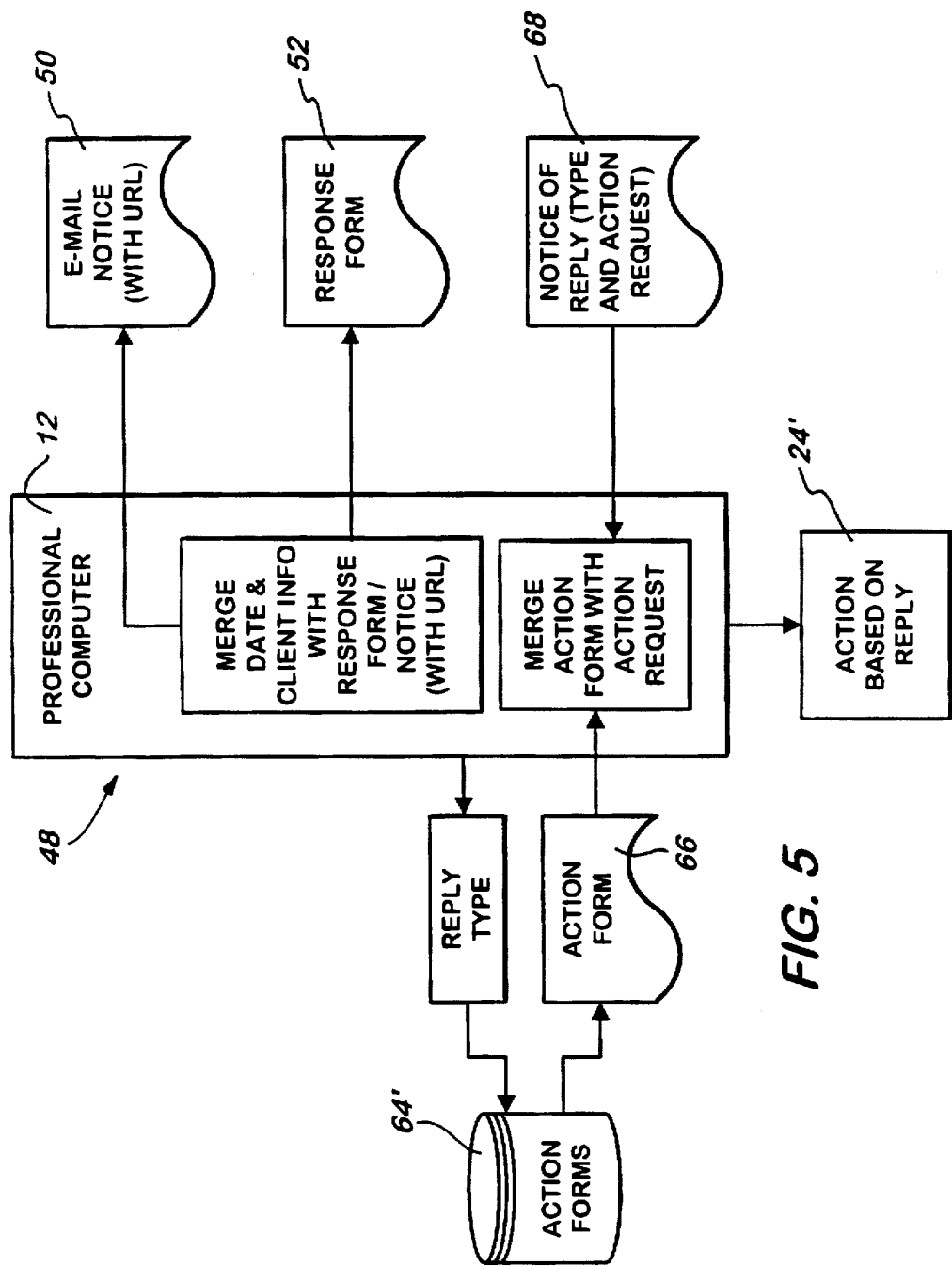


FIG. 5

5,895,468

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**SYSTEM AUTOMATING DELIVERY OF
PROFESSIONAL SERVICES**

FIELD OF THE INVENTION

The invention relates to an automated system for preparing reminders and soliciting replies for client due dates, and more particularly to a device and method which communicates reminders and receives replies over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern commu-

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nication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

Preferably, the device also includes software executing on the computer for automatically receiving a reply to the response form from the client through the communication link, for automatically generating a response based on the reply, and for automatically transmitting the response to a third party. The device also preferably includes software executing on the computer for automatically updating the database based on the reply, for automatically generating a confirmation based on the reply, and for transmitting the confirmation to the client through the communication link.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

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FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a response form 16 based on the retrieved client reminder and automatically transfers the response form 16 through an Internet communication link 18 to a client computer 20. The response form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

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Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment 30 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client email address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the response form/client notice 44, and automatically transmits the merged response form/client notice 46 by email through an Internet communication link 18 to a client computer 20. The merged response form/client notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged response form/client notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

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Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and response forms databases (not shown) to retrieve client information (not shown) and a response form/client notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the response form/client notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged response form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the response form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

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If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the confirmation 28 through the Internet communication link 18 to the client computer 20.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

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a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

2. The device of claim 1 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

3. The device of claim 2 further comprising software executing on said computer for automatically updating said database based on the reply.

4. The device of claim 3 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

5. A device for automatically delivering professional services to a client comprising:

a computer;

a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a forms database containing a plurality of response forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a response form;

software executing on said computer for automatically merging the date and the client information with the response form;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

6. The device of claim 5 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

7. The device of claim 6 further comprising software executing on said computer for automatically updating said database based on the reply.

8. The device of claim 7 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

9. A device for automatically delivering professional services to a client comprising:

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a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL;

a web server;

software executing on said computer for automatically transmitting the client response form to said web server and for automatically transmitting the notice to the client; and,

software executing on said web server for automatically transmitting the response form to the client when the URL is activated and for automatically receiving a reply to the response form from the client.

10. The device of claim 9 further comprising software executing on said web server for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

11. The device of claim 10 further comprising software executing on said web server for automatically updating said database based on the reply.

12. The device of claim 11 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

13. The device of claim 9 further comprising:

software executing on said web server for automatically generating a notice of reply based on the reply, and for automatically transmitting the notice of reply to said computer; and

software executing on said computer for automatically receiving the notice of reply from said web server.

14. The device of claim 13 further comprising software executing on said computer for automatically generating a response based on the notice of reply, and for automatically transmitting the response to a third party.

15. The device of claim 14 further comprising software executing on said computer for automatically updating said database based on the notice of reply.

16. The device of claim 15 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

17. The device of claim 9 wherein said database comprises a docket database containing a plurality of client reminders, each of the client reminders including a matter identification number and a type of reminder identification, and wherein said software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL comprises:

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a response forms database containing a plurality of response forms;

software executing on said computer for automatically querying said response forms database by the type of reminder identifier to retrieve a response form;

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software executing on said computer for automatically merging the date and the client information with the response form; and,

software executing on said computer for automatically merging the date and the client information with a notice, the notice containing a URL.

18. The device of claim 17 wherein the reply to the response form contains an action type and an action request, and further comprising;

an action forms database containing a plurality of action forms;

software executing on said web server for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

19. The device of claim 18 further comprising software executing on said web server for automatically updating said docket database based on the reply.

20. The device of claim 19 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

21. The device of claim 17 further comprising:

software executing on said web server for automatically generating a notice of reply, the notice of reply containing an action type and an action request, and for automatically transmitting the notice of reply to said computer;

an action forms database containing a plurality of action forms;

software executing on said computer for automatically receiving the notice of reply from said web server, for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

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22. The device of claim 21 further comprising software executing on said computer for automatically updating said docket database based on the notice of reply.

23. The device of claim 22 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

24. A method for automatically delivering professional services to a client comprising the steps of:

providing a computer;

providing a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

querying said database by the values attributed to each client reminder date field to retrieve a client reminder; generating a client response form from the retrieved client reminder;

establishing a communication link between said computer and the Internet;

transmitting said client response form to the client through said communication link; and,

receiving a reply to the response form from the client through said communication link.

25. The method of claim 24 further comprising the steps of:

generating a response based on the reply; and

transmitting the response to a third party.

26. The method of claim 25 further comprising the step of updating said database based on the reply.

27. The method of claim 26 further comprising the steps of:

generating a confirmation based on the reply; and

transmitting the confirmation to the client through said communication link.

* * * * *

EXHIBIT 2

(12) **United States Patent**
Whitmyer, Jr.

(10) **Patent No.:** **US 6,182,078 B1**
(45) **Date of Patent:** ***Jan. 30, 2001**

(54) **SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET**

(76) Inventor: **Wesley W. Whitmyer, Jr.**, 198 Old Kings Hwy., Darien, CT (US) 06820

(*) Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

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This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/453,728**

(22) Filed: **Dec. 2, 1999**

Related U.S. Application Data

(63) Continuation of application No. 09/237,521, filed on Jan. 27, 1999, now Pat. No. 6,049,801, which is a continuation-in-part of application No. 08/726,999, filed on Oct. 7, 1996, now Pat. No. 5,895,468.

(51) **Int. Cl.**⁷ **G06F 17/30**

(52) **U.S. Cl.** **707/10; 707/501; 707/513; 705/26; 709/217; 709/218**

(58) **Field of Search** **707/1-3, 10, 104, 707/8, 9, 200-203, 501, 513; 709/201-203, 217-219; 705/26**

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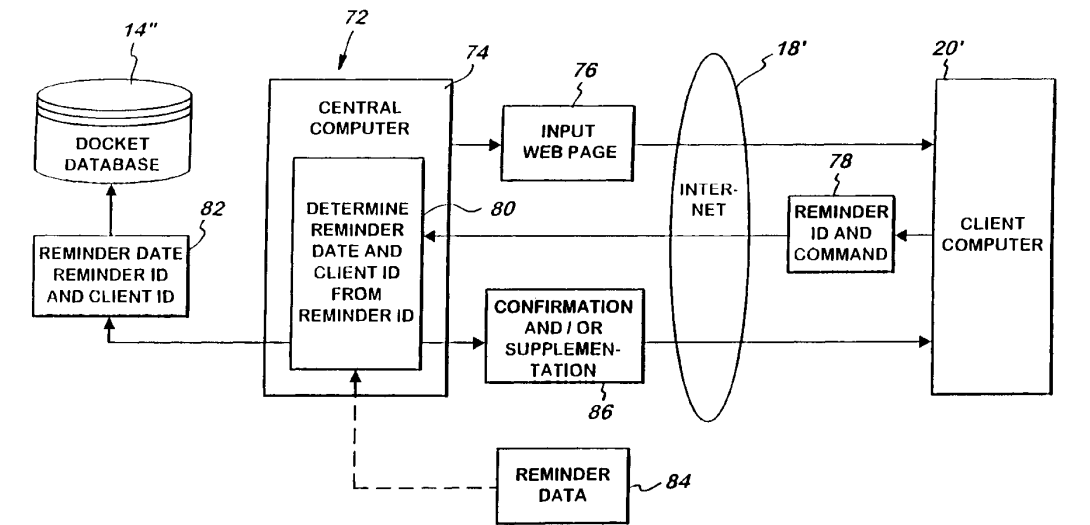
(57) **ABSTRACT**

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11 Claims, 7 Drawing Sheets



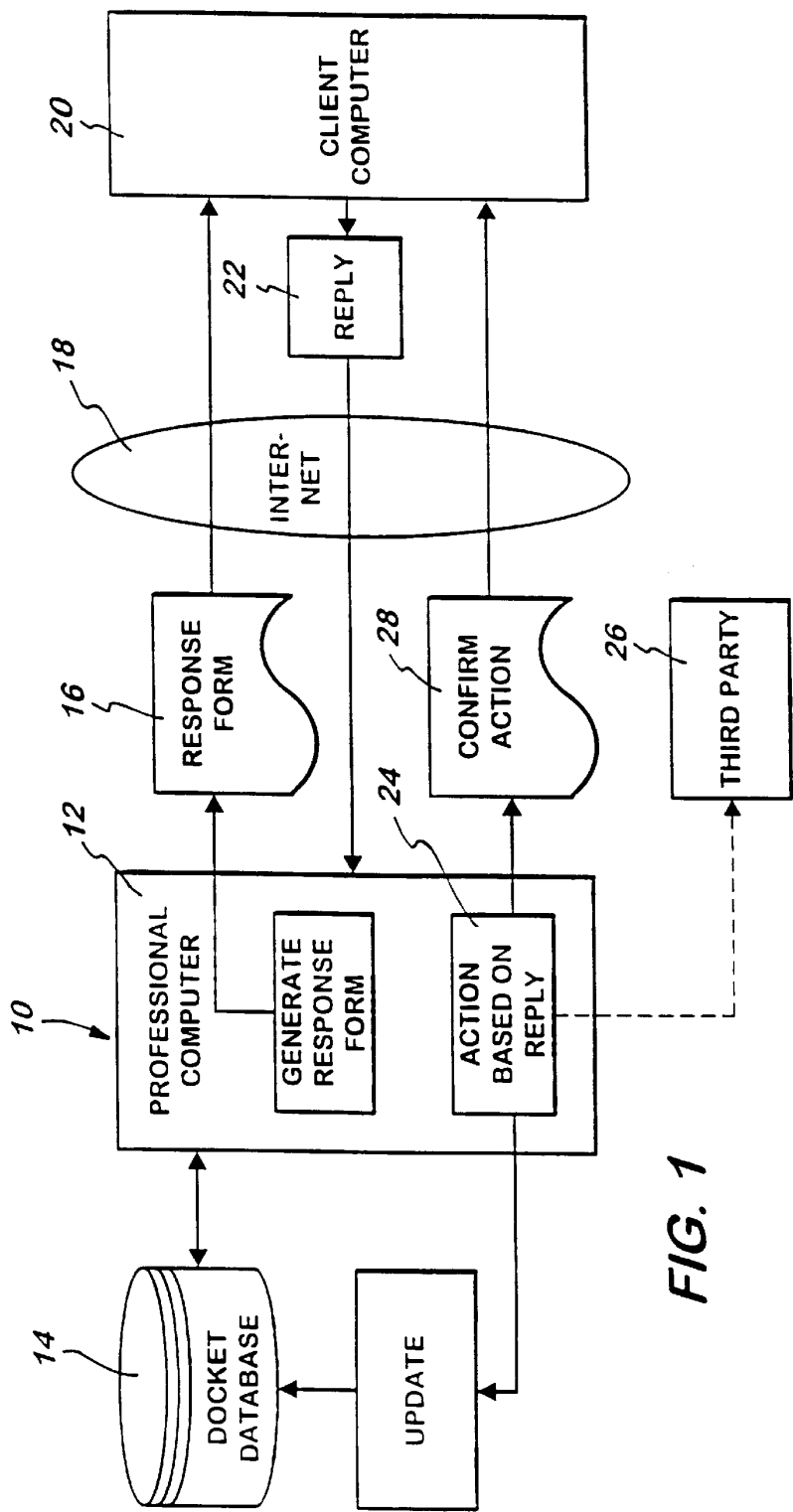
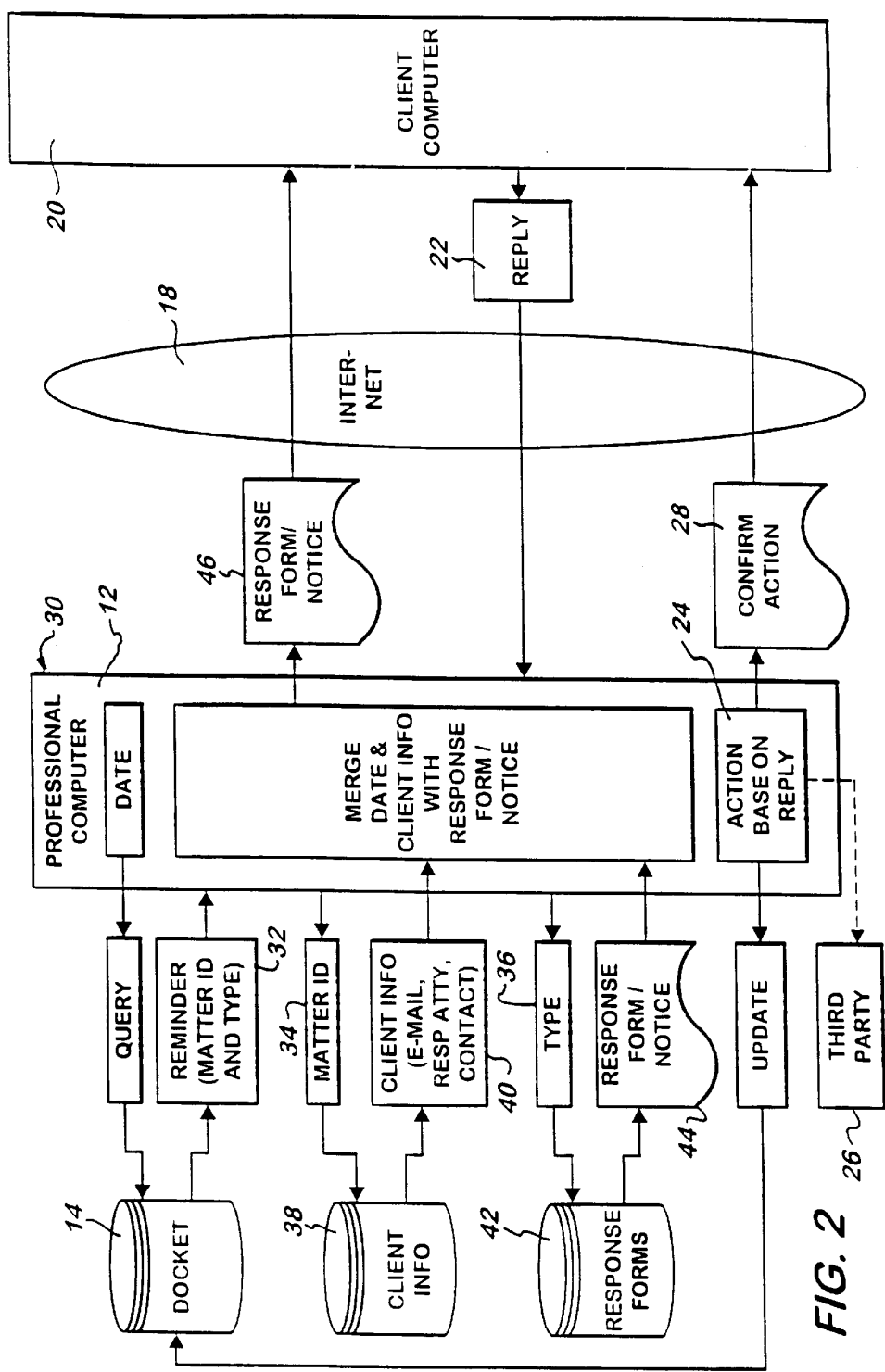
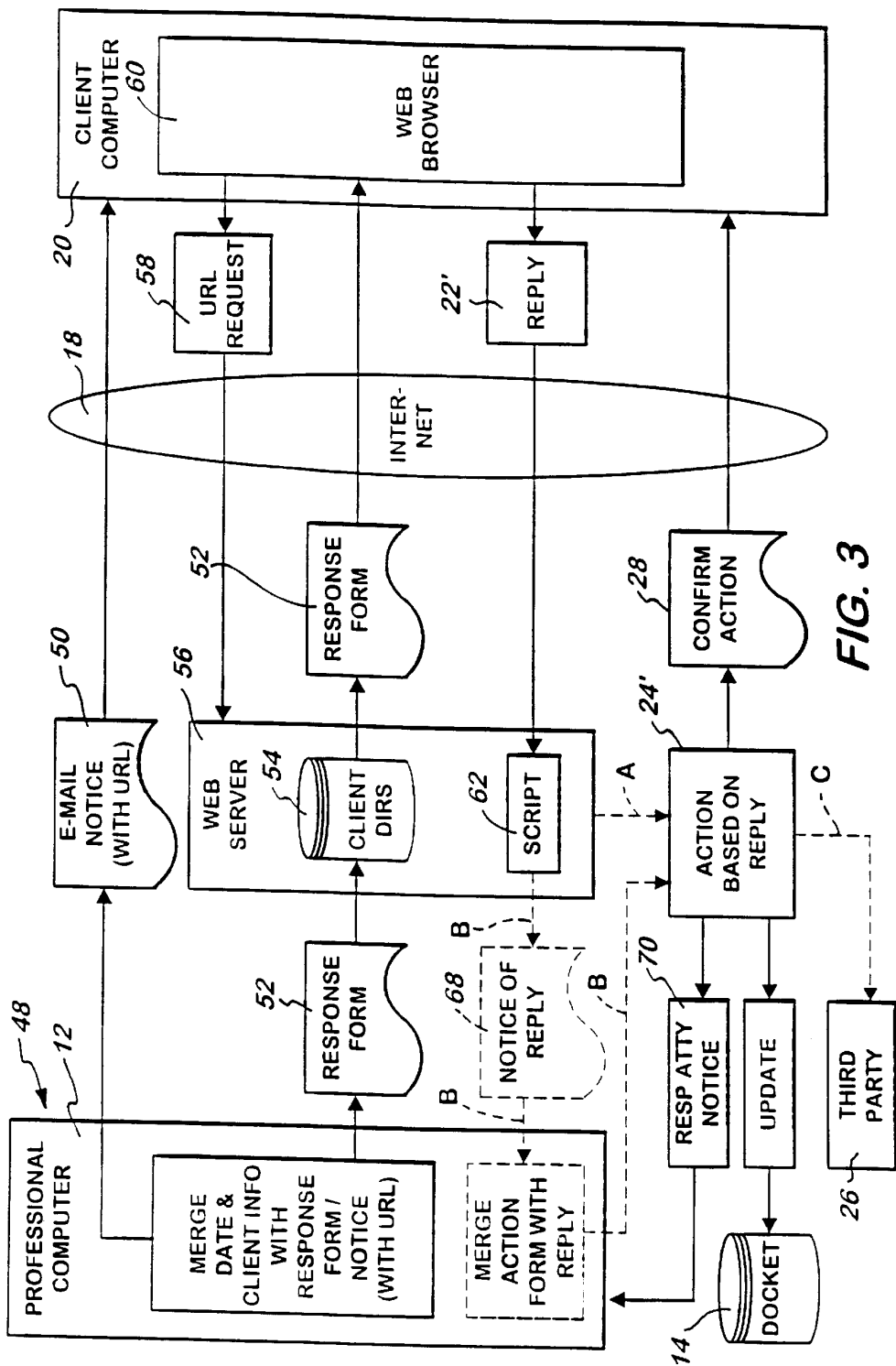


FIG. 1





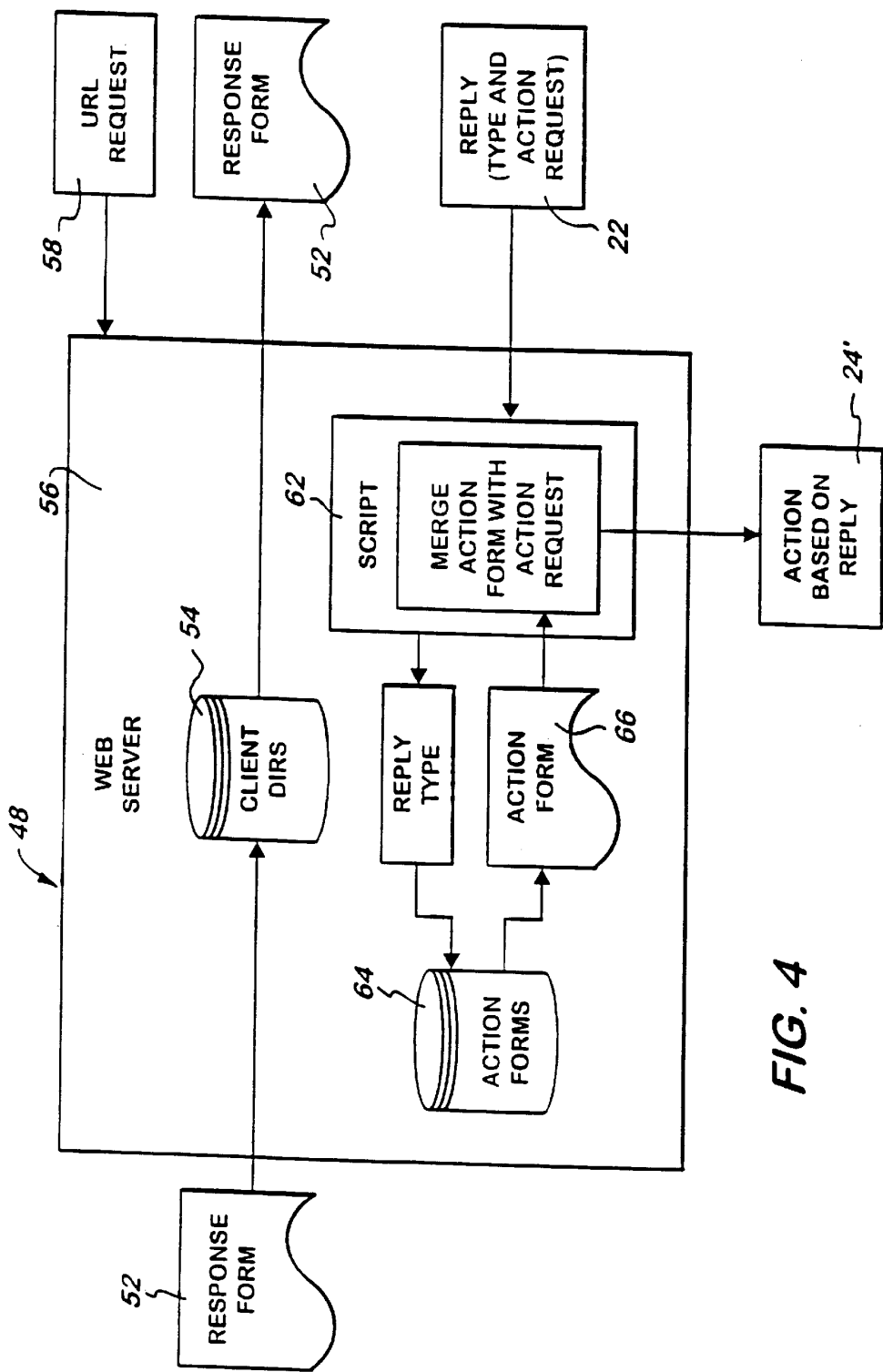


FIG. 4

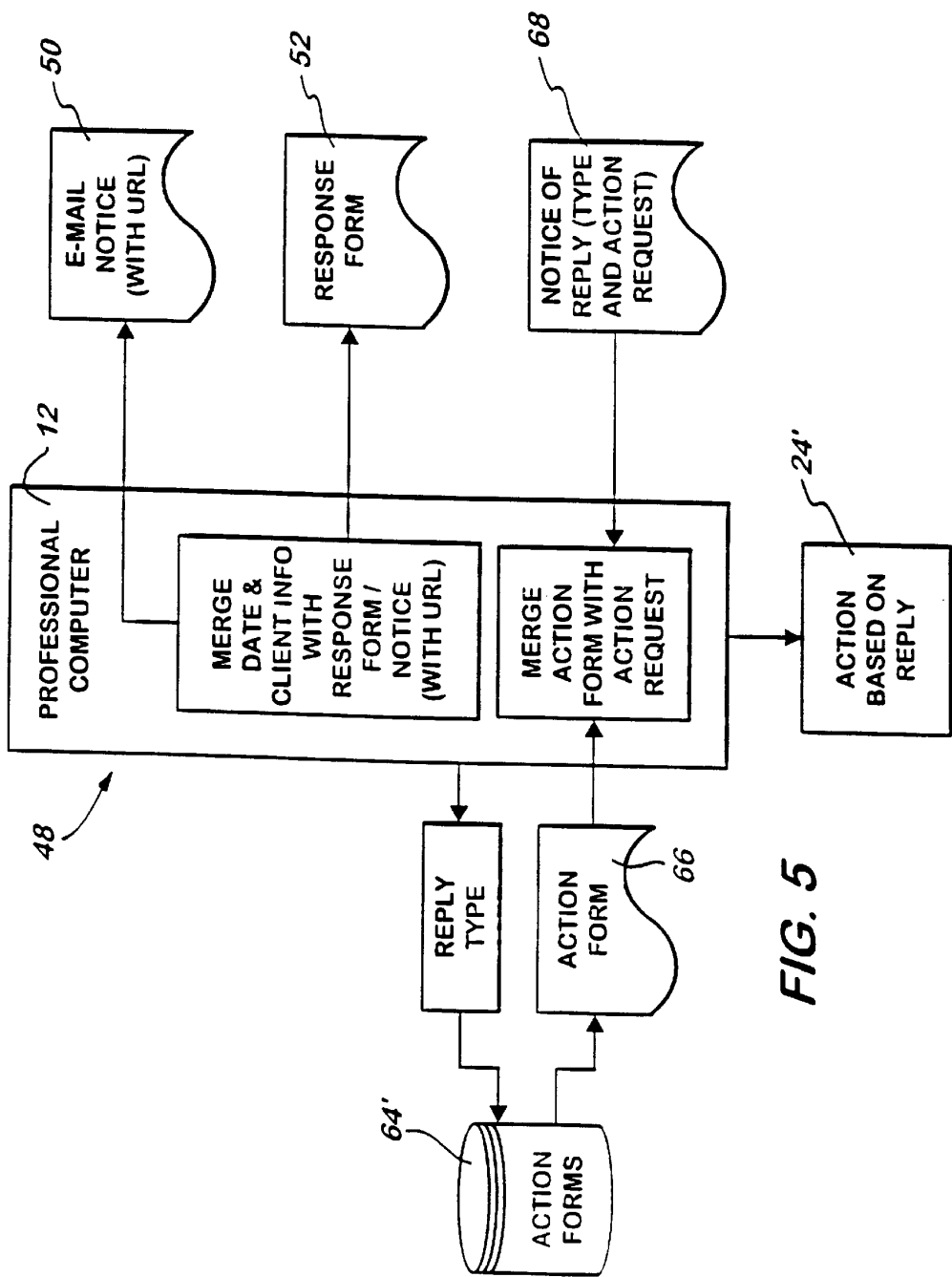


FIG. 5

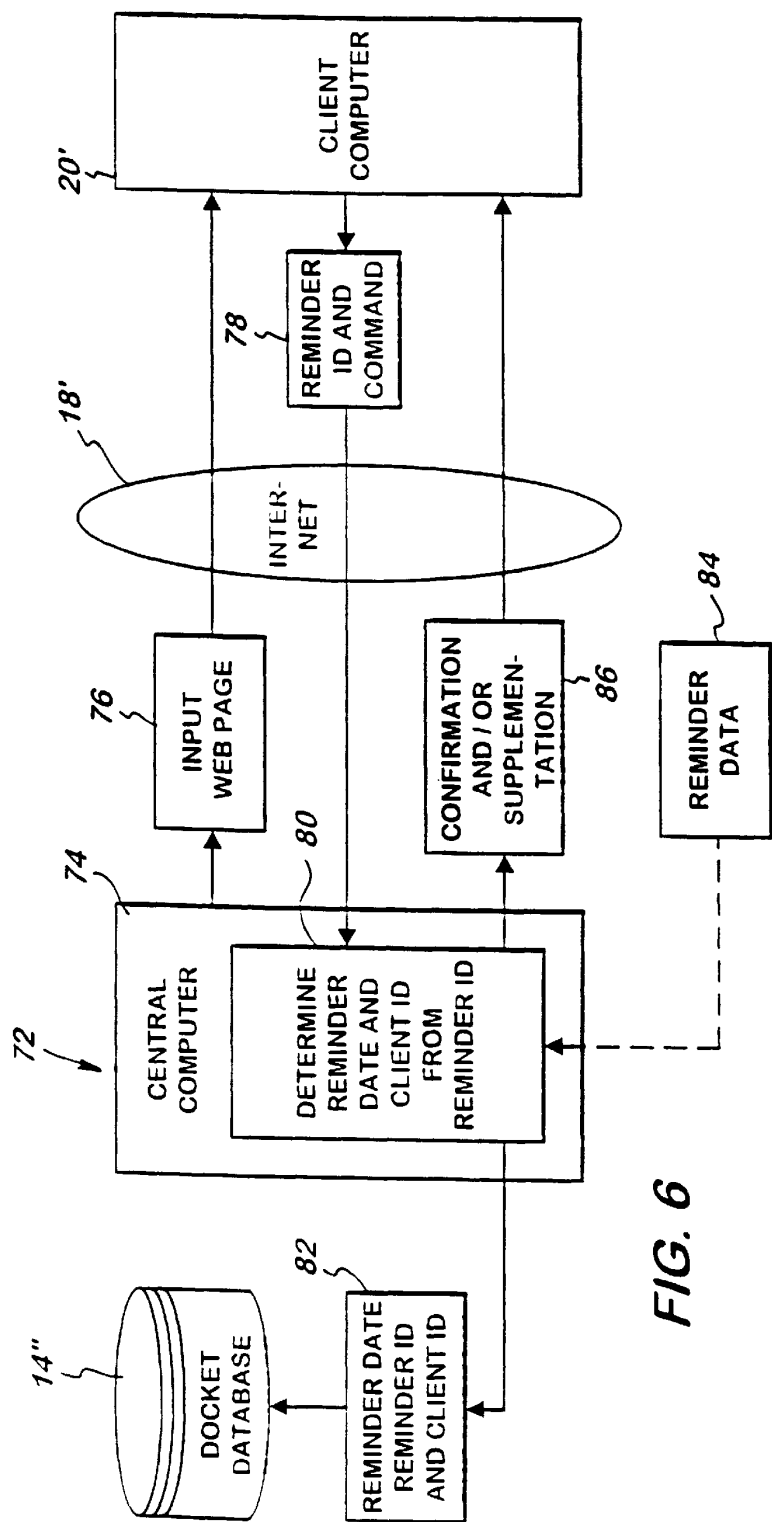
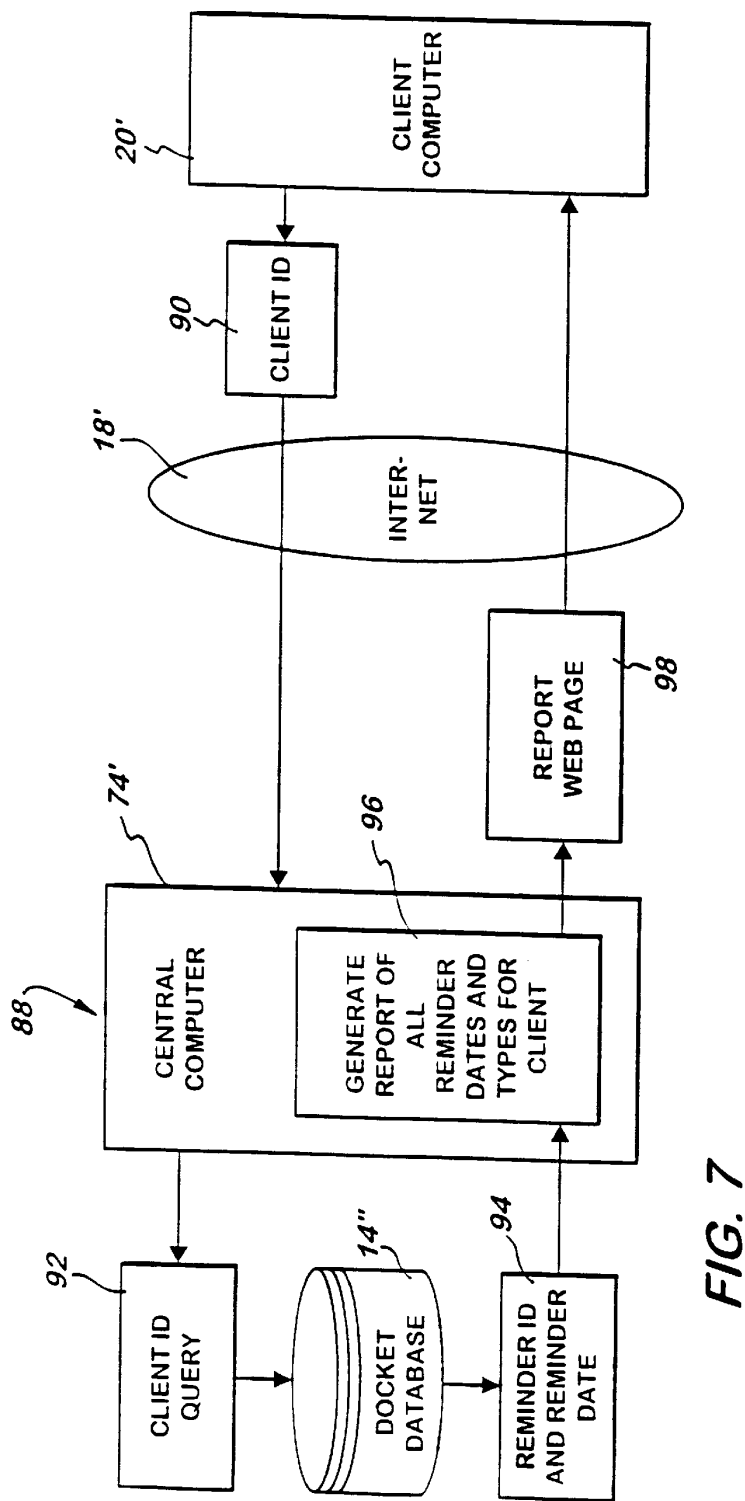


FIG. 6



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SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET

This application is a continuation of U.S. patent application Ser. No. 09/237,521 filed Jan. 27, 1999, now U.S. Pat. No. 6,049,801 which is itself a continuation-in-part of U.S. patent application Ser. No. 08/726,999, filed Oct. 7, 1996, now U.S. Pat. No. 5,895,468 issued Apr. 20, 1999.

FIELD OF THE INVENTION

The invention relates to a system for delivering professional services over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication

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using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern communication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

In one currently prevailing business model, the professional firm or service bureau maintains a docket database on behalf of a client or clients. A disadvantage of this approach is that the client does not have direct access over his/its data.

In another current approach, typically used by large corporations, the client has direct access and control over his/its data, but also must take responsibility for its security and accuracy, by maintaining hardware and software, and by proofing and reviewing the data as well as changes, e.g. in dates, fees and the like due to changes in the law of foreign jurisdictions.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client. An automated system which provides clients with control over, but not responsibility for the data is also desired.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

Still yet another object of the invention is to provide a web site permitting clients direct access to the docket database used to automate providing of professional services on their behalf.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a form based on the retrieved client reminder, and for auto-

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matically transmitting the form to the client through a communication link between the computer and the Internet.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 6 is a block diagram of a web site permitting direct client entry of reminders to the automated system of FIG. 1.

FIG. 7 is a block diagram of a web site enabling direct client reporting of reminders on the automated system of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a form 16 based on the retrieved client reminder and automatically transfers the form 16 through an Internet communication link 18 to a client computer 20. The form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs

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some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client e-mail address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the form/notice 44, and automatically transmits the merged form/notice 46 by email through an Internet communication link 18 to a client computer 20. The merged form/notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged form/notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and

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performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and forms databases (not shown) to retrieve client information (not shown) and a form/notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the form/notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the

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professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26. If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the

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confirmation **28** through the Internet communication link **18** to the client computer **20**.

Referring now to FIG. 6, a web site **72** is shown which permits direct client entry of reminders to the automated system for delivering professional services. Web site **72** includes a central computer **74** and a database **14**" which is accessible by central computer **74**. Software executing on central computer **74** generates an input web page **76** which can be retrieved by a client computer **20**', preferably but not necessarily through the Internet **18**'. The client enters a reminder identifier, a command for management of the reminder, and if desired, a request to perform a professional service, and then transfers this information **78** back to central computer **74**, again preferably through the Internet **18**'. The reminder identifier is indicative of a particular matter for which the professional is responsible. For example, in the case of an intellectual property attorney, the reminder identifier may include an intellectual property identifier, which may be a patent number or a trademark number. The command for management of the reminder may be, for example, a command to add data to the reminder, delete data in the reminder, or modify data in the reminder. The request to perform a professional service may include, in the intellectual property attorney example, a request for payment of an annuity or maintenance fee, or a request to file an intellectual property application.

The information **78** supplied by the client is received by central computer **74**, which has software **80** executing thereon for determining a reminder date and client identifier from the reminder identifier. The reminder date, reminder identifier and client identifier are then stored (indicated as **82**) on docket database **14**", thereby adding to, deleting from, or modifying the existing reminders stored on database **14**". Preferably, web site **72** includes a data source **84** which is used by software **80** to supplement and confirm the reminder identifier entered by the client before updating docket database **14**". Data source **84** may include, for example, a source of intellectual property data, including such data as the filing date and/or registration date of the intellectual property identifier, for confirming and/or supplementing the intellectual property identifier. Data source **84** may also include information such as the cost of the professional service requested. Preferably, software **80** generates a message **86** confirming and/or supplementing the reminder identifier entered by the client and transmits message **86** to client computer **20**' through the Internet **18**'.

Referring now to FIG. 7, a web site **88** is shown which enables direct client reporting of reminders on the automated system for delivering professional services. A client identifier **90** is entered by a client and transferred from client computer **20**' to central computer **74**' preferably, but not necessarily, through the Internet **18**'. Central computer **74**' uses client identifier **90** to query (shown as **92**) docket database **14**", which returns to central computer **74**' all reminder identifiers and reminder dates **94** associated with client identifier **90**. Software **96** executing on central computer **74**' generates a report of all reminder dates and reminder types returned by database **14**", generates a report web page **98**, and transfers report web page **98** to client computer **20**' preferably through the Internet **18**'. The report generated by software **96** may be organized by client identifier only, or may be organized by client identifier and then by client reference if such a client reference is sent at **90** with client identifier.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements

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or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

a computer;
a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a form based on the retrieved client reminder;

a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

2. The device of claim 1 wherein the form is an email message.

3. The device of claim 2 wherein the form is a web page.

4. A device for automatically delivering professional services comprising:

a computer;
a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a forms database containing a plurality of forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a form;

software executing on said computer for automatically merging the date and the client information with the form;

a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

5. The device of claim 4 where in the form is an email message.

6. The device of claim 4 wherein the form is a web page.

7. A device for automatically delivering professional services comprising:

a computer;
a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

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software executing on said computer for automatically
generating a form and a notice based on the retrieved
client reminder, the notice containing a URL;
a web server;
software executing on said computer for automatically 5
transmitting the form to said web server and for auto-
matically transmitting the notice; and,
software executing on said web server for automatically
transmitting the form when the URL is activated. 10

8. The device of claim **7** when the notice is an email
message.

9. A method for automatically delivering professional
services comprising the steps of:

providing a computer;

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providing a database containing a plurality of client
reminders, each of the client reminders including a date
field having a value attributed thereto;
querying said database by the values attributed to each
client reminder date field to retrieve a client reminder;
generating a form from the retrieved client reminder;
establishing a communication link between said computer
and the Internet; and

transmitting said form through said communication link.

10. The method of claim **9** where in the generating step
further comprises generating an email message.

11. The method of claim **9** wherein the generating step
further comprises generating a web page.

* * * * *

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

(a) PLAINTIFFS

WhitServe LLC

2009 Summer Street
Stamford, CT 06905(b) County of Residence of First Listed Plaintiff **Fairfield County, CT**
(EXCEPT IN U.S. PLAINTIFF CASES)(c) Attorneys (Firm Name, Address, and Telephone Number)
Stamatios Stamoulis, Stamoulis & Weinblatt LLC
Two Fox Point Centre, 6 Denny Road, Suite 307
Wilmington, DE 19809; (302) 999-1540**DEFENDANTS**

eNom, LLC

5808 Lake Washington Boulevard, NE, Suite 300
Kirkland, WA 98033County of Residence of First Listed Defendant **New Castle County**
(IN U.S. PLAINTIFF CASES ONLY)NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF
THE TRACT OF LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question
(U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity
(Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- | | PTF | DEF | | PTF | DEF |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)Click here for: [Nature of Suit Code Descriptions.](#)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES	
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excludes Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury <input type="checkbox"/> 362 Personal Injury - Medical Malpractice	PERSONAL INJURY <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 367 Health Care/ Pharmaceutical Personal Injury Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 690 Other LABOR <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Management Relations <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 751 Family and Medical Leave Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Employee Retirement Income Security Act IMMIGRATION <input type="checkbox"/> 462 Naturalization Application <input type="checkbox"/> 465 Other Immigration Actions	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input checked="" type="checkbox"/> 830 Patent <input type="checkbox"/> 835 Patent - Abbreviated New Drug Application <input type="checkbox"/> 840 Trademark SOCIAL SECURITY <input type="checkbox"/> 861 HIA (139511) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	<input type="checkbox"/> 375 False Claims Act <input type="checkbox"/> 376 Qui Tam (31 USC 3729(a)) <input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 850 Securities/Commodities/Exchange <input type="checkbox"/> 890 Other Statutory Actions <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 896 Arbitration <input type="checkbox"/> 899 Administrative Procedure Act/Review or Appeal of Agency Decision <input type="checkbox"/> 950 Constitutionality of State Statutes
REAL PROPERTY <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	CIVIL RIGHTS <input type="checkbox"/> 440 Other Civil Rights <input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 445 Amer. w/Disabilities - Employment <input type="checkbox"/> 446 Amer. w/Disabilities - Other <input type="checkbox"/> 448 Education	PRISONER PETITIONS Habeas Corpus: <input type="checkbox"/> 463 Alien Detainee <input type="checkbox"/> 510 Motions to Vacate Sentence <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty Other: <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition <input type="checkbox"/> 560 Civil Detainee - Conditions of Confinement			

V. ORIGIN (Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from Another District (specify)
- ☐ 6 Multidistrict Litigation - Transfer
- ☐ 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTIONCite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):
35 U.S.C. § 271; 35 U.S.C. §§ 283 – 285

Brief description of cause:

Patent infringement in violation of 35 U.S.C. § 271

VII. REQUESTED IN COMPLAINT:
☐ CHECK IF THIS IS A CLASS ACTION UNDER RULE 23, F.R.Cv.P.

CHECK YES only if demanded in complaint:

JURY DEMAND: ☒ Yes ☐ No**VIII. RELATED CASE(S) IF ANY**

(See instructions):

JUDGE

DOCKET NUMBER filed concurrently

DATE

02/01/2018

SIGNATURE OF ATTORNEY OF RECORD

/s/Stamatios Stamoulis

FOR OFFICE USE ONLY

RECEIPT #

AMOUNT

APPLYING IFP

JUDGE

MAG. JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

WHITSERVE LLC,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 18-193 (GMS)
)	
DONUTS INC. and NAME.COM, INC.,)	
)	
Defendants.)	

WHITSERVE LLC,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 18-194 (GMS)
)	
ENOM, LLC,)	
)	
Defendant.)	

DEFENDANTS' MOTION TO DISMISS

Pursuant to Fed. R. Civ. P. 12(b)(6), Defendants Donuts Inc., Name.com, Inc., and eNom, LLC (collectively, "Defendants") move to dismiss the Complaints because the claims of U.S. Patent Nos. 5,895,468 and 6,182,078 are invalid as directed to patent-ineligible subject matter. The grounds for this motion are set forth more fully in Defendants' Opening Brief, submitted herewith.

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May 7, 2018

CERTIFICATE OF SERVICE

I hereby certify that on May 7, 2018, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on May 7, 2018, upon the following in the manner indicated:

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/s/ Jack B. Blumenfeld

Jack B. Blumenfeld (#1014)

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

WHITSERVE LLC,)	
)	
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v.)	C.A. No. 18-193 (GMS)
)	
DONUTS INC. and NAME.COM, INC.,)	
)	
Defendants.)	

WHITSERVE LLC,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 18-194 (GMS)
)	
ENOM, LLC,)	
)	
Defendant.)	

DEFENDANTS' OPENING BRIEF
IN SUPPORT OF THEIR JOINT MOTION TO DISMISS

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May 7, 2018

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I. NATURE AND STAGE OF PROCEEDINGS

Plaintiff, WhitServe LLC (“WhitServe”), filed these actions against Donuts Inc., Name.com, Inc., and Enom, LLC (collectively “Defendants”), on February 1, 2018, asserting infringement of U.S. Patent No. 5,895,468 (the “’468 Patent”) and U.S. Patent No. 6,182,078 (the “’078 Patent”) (collectively the “Patents-In-Suit”). Discovery has not yet begun, nor has a case schedule been entered. Defendants jointly move to dismiss these actions under Fed. R. Civ. P. 12(b)(6) because the claims of the ’468 Patent and the ’078 Patent are invalid as directed to patent-ineligible subject matter.

II. SUMMARY OF THE ARGUMENT

The Supreme Court has set forth a two-step inquiry for performing patent eligibility under 35 U.S.C. § 101: are claims directed to an abstract idea; and, if so, do they recite an inventive concept that amounts to significantly more than a patent upon the abstract idea itself? *See Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2352 (2014). Because claims that do no more than implement such known business practices on a generic computer are plainly not patent eligible under the *Alice* inquiry, WhitServe’s infringement claims should be dismissed. *See Alice*, 134 S. Ct. at 2352 (holding that putting known business practice of intermediated settlement on computers was not patent eligible).

Since the earliest days of the profession, lawyers have calendared their client’s upcoming due dates and, when those dates neared, communicated with the client about the upcoming date and how the client wished to proceed. In the Patents-in-Suit, WhitServe seeks to patent performing these fundamental steps of providing professional services on a standard computer.¹

¹ WhitServe has taken the position that its claims are not even limited to the provision of “professional services” but apply to all commercial activities. If that view of the claims were adopted, the abstract idea to which these claims are directed would encompass even more

The shared specification of the '468 Patent and the '078 Patent demonstrates that the claimed invention is directed to an abstract idea: reminding clients of needed professional services based on upcoming due dates and communicating with clients to receive their responses to those reminders. The specification acknowledges that those claimed steps were already performed in the professional world, where “oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client and then take some action based on the client’s response.” Ex. 1 at 1:12-16; Ex. 2 at 1:17-21.² The specification identifies existing prior art solutions such as docketing systems that reduced the degree of human action required to perform the professional services, but did not remove it entirely. Ex. 1 at 1:27-46; Ex. 2 at 1:32-51. Thus, a core goal of the Patents-in-Suit is to use computers and the Internet to automate a process that could otherwise be performed by a human manually. *See* Ex. 1 at 2:6-14; Ex. 2 at 2:22-32.

This automation is concededly to be carried out on generic computers using generic networks. Ex. 1, at 2:35-45; Ex. 2, at 2:60-3:2 (“objects of the invention are achieved by provision of a device...includ[ing] a computer and a database” and “software...for automatically transmitting the client response form...through a communication link between the computer and Internet”). The specification does not identify any improvement upon known networks, the Internet or general-purpose computers. Instead, it makes plain that the claimed invention only seeks to “improve[] the speed, efficiency, and reliability of performing services for clients” by automating an age-old process and using the Internet for communications. Ex. 1 at 2:16-18; Ex. 2 at 2:36-38. Nor do the Complaints contain any factual allegations concerning the technological

commonplace business activities practiced by dry cleaners, gyms, rental companies and any other business that reminds customers when they have an upcoming renewal or due date.

² Copies of the '468 Patent and the '078 Patent are attached as Exhibits 1 and 2, respectively.

nature of the invention, or suggesting that the invention improves upon any of the computer technology used in its implementation. In short, there is no factual dispute that the Patents-in-Suit claim the use of routine and conventional computer technology to automate providing professional services.

The Supreme Court established in *Alice* that claims reciting the automation of known business methods using conventional technology are directed to an abstract idea. Indeed, *Alice* itself held that claims directed to automating intermediated settlements were directed to an abstract idea. 134 S. Ct. at 2352. Where the main object of the patent is to reduce the costs and inefficiency associated with human actions by applying a computer—or, as in the Patents-in-Suit, to “to improve the speed, efficiency and reliability of performing professional services” (Ex. 1 at 2:8-9, Ex. 2 at 2:25-26)—the claims fall squarely within the realm of abstract ideas. Indeed, the Federal Circuit has repeatedly held that patent claims that seek to cover business practices implemented using standard computer technology constitute impermissible efforts to patent abstract ideas. *See, e.g., Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1319-22 (Fed. Cir. 2016) (“[V]irus screening is well-known and constitutes an abstract idea.”); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367-68 (Fed. Cir. 2015) (“tracking financial transactions to determine whether they exceed a pre-set spending limit (i.e., budgeting)” is an abstract idea that “is not meaningfully different from the ideas found to be abstract in other cases ... involving methods of organizing human activity”); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1360, 1362-64 (Fed. Cir. 2014) (methods of offer-based price optimization in e-commerce environment were drawn to an abstract idea).

The Complaints also lack any factual allegations suggesting that the claims of the Patents-in-Suit disclose an inventive concept sufficient to make the claimed abstract idea into a

patent-eligible invention. The single supposed “innovation” of the invention, as stated in the specification, is to automate the administrative tasks of providing reminders to client of needed professional services and receiving their responses. Using a computer to automate a business practice does not amount to an inventive concept. *See Alice*, 134 S. Ct. at 2352 (“[s]imply appending conventional steps, specified at a high level of generality, is not enough to supply an inventive concept.” (quoting *Mayo Collab. Servs v. Prometheus Labs., Inc.*, 566 U.S. 66, 82 (2012)); *D&M Holdings, Inc. v. Sonos, Inc.*, 2018 U.S. Dist. LEXIS 25666 at *17 (D. Del. Feb. 16, 2018) (finding that the claim “provides no inventive concept, and at most merely automates the abstract idea through the use of a generic, conventional technology.”) (internal quotations omitted)).

Because the claims of the Patents-in-Suit fail to meet the test set forth in *Alice* for patent eligibility, these actions should be dismissed.

III. STATEMENT OF FACTS

The '468 Patent was filed on October 7, 1996. The '078 Patent was filed on December 2, 1999, and is a continuation of U.S. Patent No. 6,049,801, which is a continuation-in-part of the '468 Patent. Thus, both patents expired more than a year before these actions were filed. The Complaints allege that Defendants infringe four independent claims in the Patents-in-Suit, claims 1 and 24 of the '468 Patent and claims 1 and 9 of the '078 Patent. The Complaints further allege that Defendants infringe dependent claims 3 and 11 of the '078 Patent.

The claims of the Patents-in-Suit are directed to devices or methods of automatically delivering professional services by querying a database containing client reminders, generating a client response form based on a reminder and transmitting it to the client.

Claim 1 of the '468 Patent recites:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form from the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

Ex. 1, Claim 1. Claim 1 of the '078 Patent recites:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a form based on the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the form to the client through said communication link.

Ex. 2, Claim 1.

Claim 1 of the '468 Patent and claim 1 of the '078 Patent each recite four main components (“a computer”, “a database containing a plurality of client reminders”, “software” and “a communication link”) within the device for automatically providing professional services. The specification makes plain that each of these components is a generic computer or network component. *See, e.g.*, Ex. 1 at 2:37-45 (describing use of “computer” and “software” that allows for “a communication link between the computer and the Internet”); 3:64-66 (“Internet communication link” and “internal communications over a computer network”); *see also* Ex. 2 at 2:62-3:2; 4:16-19. Each claim also recites that the “software” be configured for “automatically querying said database...”, “automatically generating a...form...” and “automatically transmitting the...form to the client...”. The Complaints assert that “automatically” is interpreted broadly to mean “a process that, once initiated, functions without further human intervention to accomplish functions or steps designated.” Complaint (D.I. 1) ¶ 21. The main difference between these two claims is that claim 1 of the '468 Patent recites the additional limitation of automatically receiving a reply from the client.

The other asserted independent claims in the '468 Patent (claim 24) and the '078 Patent (claim 9) differ from the representative claims only in one regard: the claims are directed towards a method for automatically delivering professional services instead of a device for doing so. Dependent claim 3 in the '078 Patent narrows the device of claim 1 by limiting the said form to a webpage. Similarly, claim 11 of '078 Patent narrows the method in claim 9 by requiring that the generating step include the generating of a webpage.

There are additional independent claims in the Patents-in-Suit, two in the '468 Patent (claims 5, and 9)³ and two in the '078 Patent (claims 4 and 7)⁴, all of which are directed to the same idea of automatically delivering professional services to a client but contain narrowing limitations that WhitServe has not asserted are infringed by Defendants. Therefore, Defendants do not address their lack of patentable subject matter herein. Should WhitServe raise such allegations, Defendants would address the patent ineligibility of those claims at that time.

IV. ARGUMENT

A. Patent Eligibility Under 35 U.S.C. § 101 May Be Properly Decided on the Pleadings.

Patent eligibility under Section 101 is suitable for resolution at the pleadings stage. *See TriPlay, Inc. v. WhatsApp Inc.*, 2018 U.S. Dist. LEXIS 49953, at *13-14 (D. Del. Mar. 27, 2018) (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018)); *Genetic Techs. Ltd. v. Merial LLC*, 818 F.3d 1369, 1373-74 (Fed. Cir. 2016) (*cert. denied*, 137 S. Ct. 242 (2016) (“We have repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion.”); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 713 (Fed. Cir. 2014). Patent eligibility may be decided on a motion to dismiss as a matter of law “[w]hen there is no genuine issue of material fact regarding whether the claim element or claimed combination is well-understood, routine, conventional to a skilled artisan in the relevant field.” *Berkheimer*, 881 F.3d at 1368.

³ Claim 5 is directed towards a device that includes a docket database containing a plurality of client reminders whereby the client reminder includes a matter identification number. Claim 9 recites a device comprising a webserver and whereby the software automatically transmits a response form to the client when a URL is activated.

⁴ Claim 4 is directed towards a device comprising a docket database containing a docket database containing a plurality of client reminders whereby the client reminder includes a matter identification number; and a forms database containing a plurality of forms. Claim 7 is directed towards a device comprising a webserver and whereby the software automatically transmits a form to the web server and automatically transmits a notice.

Here, the claim language and the specification fully describe the nature of the invention, and WhitServe's Complaints lack any factual allegations suggesting that the claims of the Patents-in-Suit provide any technological improvement to the functioning of the computer or use the computers at issue in any unconventional way. *See generally* Complaint (D.I. 1); Ex. 1, 1:11-2:62. In the absence of any allegations raising a factual dispute as to the abstract nature of the claimed invention, determination of patent eligibility on a motion to dismiss is proper. *TriPlay*, 2018 U.S. Dist. LEXIS 49953, at *21 (granting motion to dismiss where neither "the specification [n]or [the complaint] disclose any specific improvement the patentees invented.").

Evaluation of a patent claim's subject matter eligibility under § 101 also does not require claim construction. *See Genetic Techs.*, 818 F.3d at 1374; *Bancorp Servs., LLC v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1273-74 (Fed. Cir. 2012) (claim construction not prerequisite for determining § 101 motion if the Court has a "full understanding of the basic character of the claimed subject matter"). That is particularly true where, as here, the patentee has included in the Complaints its proposed constructions of the claim terms. *See, e.g.*, Complaint (D.I. 1) ¶¶ 19-21 (defining "a computer," "a database," "client reminder," and "automatically."). In that case, the Court may simply evaluate patent eligibility based on the claim constructions advanced by the patentee. *See Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (the Court may proceed to resolve eligibility issues on motion to dismiss "by adopting the non-moving party's constructions").

Because there are no factual disputes to be resolved that would bear on the issue, the Court may decide patent eligibility on Defendants' Motion to Dismiss.

B. Legal Standard for Patent-Eligible Subject Matter

Section 101 confers patent eligibility for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C.

§ 101. The Supreme Court “has long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena and abstract ideas are not patentable.” *In re TLI Commc’ns, LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (citing *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)).

In *Alice*, the Supreme Court explained that patent law does not allow for the monopolization of abstract ideas because they are the “building blocks of human ingenuity.” *Alice*, 134 S. Ct. at 2359. *Alice* set forth a two-part test to determine patentability under Section 101. The first step requires the Court to evaluate the claims “[o]n their face” to determine whether the “concept” the claims are “drawn” to is abstract. *Id.* at 2356. If so, the Court proceeds to the second step, where it must determine whether the claims contain an “‘inventive concept’—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294). With respect to the second step, the “mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention,” *Alice*, 134 S. Ct. at 2358, because applying an abstract idea on a generic computer is “not enough for patent eligibility.” *Id.* Expanding on that idea, the Court observed that, “[g]iven the ubiquity of computers, wholly generic computer implementation is not generally the sort of ‘additional featur[e]’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’” *Id.* (internal citations omitted) (quoting *Mayo*, 132 S. Ct. at 1297). Applying these principles, this Court has held that “neither ‘[a] simple instruction to apply an abstract idea on a computer,’ nor ‘claiming the improved speed or efficiency inherent with applying the abstract idea on a computer’ satisfies the requirement of an ‘inventive concept.’” *D&M Holdings, Inc. v. Sonos*,

Inc., 2017 U.S. Dist. LEXIS 58790 at *13 (D. Del. Apr.18, 2017) (*quoting Intellectual Ventures*, 792 F.3d at 1367).

C. The Patents-in-Suit Are Directed to Ineligible Subject Matter

1. *Alice Step 1*

The claims of the Patents-in-Suit are directed to the abstract idea of reminding clients of needed professional services based on upcoming due dates and communicating with the clients to receive their responses to those reminders. As the specification explains, the invention relates to “a device and method for use by professionals” for “performing services to clients” which involve “prepar[ing] reminders and solicit[ing] replies for client due dates.” Ex. 1 at 2:17-22; Ex. 2 at 2:37-42. The goal of the patents, therefore, is to provide a device and method for “automating delivery of professional services to a client.” Ex. 1 at 2:57-58; Ex. 2 at 3:4-5. Other systems had already been developed, as the specification acknowledges, which had “facilitate[ed] some of the function which professionals perform” but those systems “aid in only one of many steps which the professional must perform[.]” Ex.1 at 1:27-37; Ex. 2 at 1:33-43. Moreover, the specification describes that those prior systems did not “employ modern computer communications media, such as the Internet.” Ex.1 at 1:54-56; Ex. 2 at 1:59-61.

The claims of the Patents-in-Suit lack any technological specificity and seek to encompass any computer systems that “automatically” deliver professional services. The Complaints allege that these claims apply broadly to computer systems that “automatically remind customers of the upcoming expiration dates of their domain name registrations” and “receive customer instructions for renewal of domains.” *See, e.g.* Complaint (D.I. 1) ¶ 22. The Complaints allege that “automatically” means “a process that, once initiated, functions without further human intervention to accomplish functions or steps designated.” *See* Complaint (D.I. 1) ¶ 26. WhitServe’s factual allegations provide no explanation as to how such automation is

implemented but instead merely states that it is “without further human intervention.” *Id.* The components recited in the claims also do not help provide any specificity, as the components themselves are generic. Ex. 1, claim 1 (“a computer”, “database”, “software” and “a communications link between said computer and the Internet”); Ex. 2, claim 1 (same). The claim elements do not contain any limitations as to the type of computer, database, or communication link between the computer and Internet that can be used. *See* Ex. 1, claim 1; Ex. 2, claim 1. The dependent claims are not limited to a specific innovative technology and instead encompass many forms of electronic communications. *See*, e.g. Ex. 2, claim 2 (“the form is an email message”); claim 3 (“the form is a web page”). Thus, the claims seek to encompass automating professional services in any technological environment using standard computer technology.

The Federal Circuit in *Enfish LLC v. Microsoft Corp.* clarified that the step one *Alice* inquiry requires the Court “to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea.” 822 F.3d 1327, 1335 (Fed. Cir. 2016). In doing so, the Federal Circuit distinguished the claims before it as directed to improving the functioning of a computer from claims that “simply add[] conventional computer components to well-known business practices.” *Id.* at 1338.

The focus of WhitServe’s claims is to “improve the speed, efficiency, and reliability of performing services for clients” (Ex. 1 at 2:17-19; Ex. 2 at 2:37-39) by automating age-old business practices. The tasks of reminding clients of needed professional services based on upcoming due dates and receiving client responses to those reminders are as old as the law itself. As a young lawyer, Abraham Lincoln surely provided reminders to clients of looming court dates and received a client’s response before moving forward with the matter. The claims recite automating these tasks by implementing them on general purpose computers using basic

computer technology and functions. *See, e.g.*, Ex. 1, claim 1 and Ex. 2, claim 1 (“a computer”, “a database”, “software” and “a communications link between said computer and the Internet”).

The Complaints contain no factual allegations suggesting that the claims recite any elements that improve computer functionality. Furthermore, as evidenced by the claim language itself, the claims require only the most basic of computer functions: automatically querying a database; automatically generating a form; and transmitting the form through a communications link. *Two-Way Media Ltd v. Comcast Cable Communs., LLC*, 874 F.3d 1329, 1340-41 (Fed. Cir. 2017) (“processing data streams, transmitting them from ‘an intermediate computer,’ and then confirming certain information about the transmitted data” do not “require[] anything other than conventional computer and network components operating according to their ordinary functions”). Claim 1 of the ’468 Patent contains the additional limitation of automatically receiving a reply to the form from the client. However, this limitation does not provide anything more than another generic computer function. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”).

The specification also makes no reference to any computer functionality improvement and, to the contrary, makes plain that the claims simply add conventional computer technology to a business practice. *See, e.g.*, Ex. 1 at 1:10 to 2:14, 2:32-63; Ex. 2 at 1:16-2:32. The abstract nature of the invention is further evidenced by the prosecution history of the ’468 Patent, where in order to overcome the prior art, WhitServe emphasized that the focus of the invention was on the automation of professional services. *See* Ex. 3, Office Action Response, Serial No. 08/726,999 (June 8, 1998) (“[n]either piece of prior art teaches or suggests the automating of

professional services themselves”). There is no genuine dispute that the asserted claims are directed to an abstract idea that is implemented on a computer.

The abstract idea here is analogous to those found patent-ineligible by the Federal Circuit. In *Intellectual Ventures I*, the court said that because “it was [a] long-prevalent practice for people receiving paper mail to ... discard certain letters, without opening them,” if perceived as junk mail, that applying that idea to *electronic* mail was also abstract. 838 F.3d at 1314. Here, the specification concedes that it was routine for professionals to “send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client’s response.” Ex. 1 at 1:13-16; Ex. 2 at 1:18-21. Modernizing that routine practice for the computer age does not make it patent eligible.

Likewise, in *Credit Acceptance Corp. v. Westlake Servs.*, the court explained that “[o]ur prior cases have made clear that mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.” 859 F.3d 1044, 1055 (Fed. Cir. 2016). Distinguishing *Enfish*, the court then held the claims to be patent ineligible, concluding that the claimed invention consisted of programming a computer to perform steps of an abstract idea and did not improve computer function. *Id.* Similarly, here, the entire focus of the asserted claims is to automate the functions that professionals admittedly already manually performed when providing services to clients. Automatically generating forms based on a reminder and transmitting the forms over a standard communication link, as described in claim 1 of each patent, are classic examples of common computer capabilities and as such do not improve computer function. See *Two-Way Media*, 874 F.3d at 1337 (claims directed to the abstract idea of sending, directing, monitoring information over a network not patent-eligible).

Because the claims of the Patents-in-Suit do not improve the function of the computers or networks, but rather are directed to automatically providing reminders of upcoming professional services and response forms using standard technology, they are directed to an abstract idea.

2. *Alice Step 2*

Once it has been determined that the asserted claims of the Patents-in-Suit are directed to an abstract idea, the next step in the analysis is to determine whether they add anything “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the abstract idea itself.” *Alice*, 134 S. Ct. at 2355 (internal quotations omitted). It is well-settled that limitations requiring the use of standard computer hardware such as servers or networked computers do not supply an inventive concept with respect to an otherwise abstract idea. *See Alice*, 134 S. Ct. at 2358 (generic computer limitations cannot constitute inventive concept); *In re TLI*, 823 F.3d at 612-13 (no patentability where computer technology “perform[ed] generic computer functions such as storing, receiving and extracting data”); *Intellectual Ventures I*, 838 F.3d at 1320; *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (finding patent ineligibility where the claims did not “require[] anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information”); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (generic scanner and computer performed the “well-understood, routine and conventional activities” of recognizing and storing data and did not confer patentability); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d at 716 (“the use of the Internet is not sufficient to save otherwise abstract claims from ineligibility under § 101”).

The supposed “innovation” of the Patents-in-Suit, by their own telling, is to automate the business practices of reminding clients of needed professional services based on upcoming due dates and communicating with clients to receive their responses (*i.e.*, apply an abstract idea on a

computer), with the advantage of reducing the number of functions requiring human action as compared to earlier systems that had already begun to automate the client reminder process. This type of “innovation” does not supply an inventive concept. *See D&M Holdings*, 2017 U.S. Dist. LEXIS 58790, at *13 (citing *Intellectual Ventures*, 792 F.3d at 1367).

The components recited in the asserted claims—“a computer,” “a database,” “software” and “a communication link between the computer and the Internet”—are wholly generic and perform common functions that every computer performs. *See Audatex N. Am., Inc. v. Mitchell Int'l, Inc.*, 703 Fed. Appx. 986, 990 (Fed. Cir. 2017), *cert. denied* 703 Fed. App'x 986 (2018) (finding the patent ineligible where the claims “merely recite[d] a host of generic computer components” including “web pages, a client computer, an electronic communication network, a database, [and] a web server”) (internal quotations omitted). The specification does not describe any improvement as to these components, instead making clear that they are generic, conventional computer technology. For example, the specification recites computers (1:37), databases (1:38), software (1:39), a communication link (1:44) and assumes (correctly) that the skilled person understands what these components are and does not further limit them. *See Ex. 1* at 1:37-39, 44. As the specification describes, the “software” must only be capable of querying a database by date to retrieve a reminder, generating a response form, transmitting the response form and receiving a reply – which are all functions of generic computer software. The communication link is any link capable of transmitting data between the Internet and a computer – which is essentially the definition of a communication link. Complaint (D.I. 1) ¶ 32. None of the asserted computer technology is disclosed to perform any functions other than the standard computer functions of querying, generating, transmitting and receiving information. Thus, the claims do not describe a device or method that improves the relevant technology but are instead

“directed to a result or effect [*i.e.*, automating the delivery of professional services] that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016).

Considering the claims as an ordered combination also fails to supply an inventive concept. The asserted claims recite a conventional ordering of steps: (1) automatically querying a database; (2) automatically generating a form; and (3) transmitting the form through a communications link, which whether considered individually or as an ordered combination, are nothing more than an abstract idea. None of the steps add anything “significantly more” than the abstract idea but instead merely describe “well-understood, routine, conventional activities” performed by generic computer components. *See Alice*, 134 S. Ct. at 2355, 2359; *Intellectual Ventures I*, 792 F.3d at 1367-68 (“Steps that do nothing more than spell out what it means to ‘apply it on a computer’ cannot confer patent-eligibility.”). Neither the specification nor the Complaints include any factual allegations that the order or arrangement of the claimed steps constitutes an inventive concept.

Taken together, the functions performed by computer-related components in the claims fall well short of creating a basis for patentability. *See In re TLI*, 823 F.3d at 611-13. This case presents a classic example of a patent that describes an abstract idea and then provides instructions to do it on a generic computer. *See Alice*, 134 S. Ct. at 2358 (if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility). Without any inventive concept being added to the abstract idea for reminding clients of needed professional services based on upcoming due dates and communication with clients to receive their responses to those

reminders, the claims of the Patents-in-Suit fail the second step of the *Alice* analysis and, therefore, are not patent eligible.

3. ***Claim 1 of the '468 Patent and Claim 1 of the '078 Patent are Representative of all of the claims of the Patents-in-Suit***

This Court “is not required to individually address claims not asserted or identified by the non-moving party, so long as the court identifies a representative claim and ‘all the claims are substantially similar and linked to the same abstract idea.’” *IPA Techs., Inc. v. Amazon.com, Inc.*, 2018 U.S. Dist. LEXIS 55370 at *8-9 (D. Del. Mar. 31, 2018) (quoting *Content Extraction*, 776 F.3d at 1348 (internal quotation marks omitted)); see also *Inventor Holdings, LLC v. Bed Bath & Beyond Inc.*, No. 14-448-GMS, 2015 WL 5000838, at *1 n.2 (D. Del. Aug. 21, 2015) (“The court concludes that the claims are directed to the same abstract idea such that addressing each claim [is] not necessary”); *Cronos Techs., LLC v. Expedia, Inc.*, 2015 WL 5234040 (D. Del. Sept. 8, 2015) (defining question as “do all of the challenged claims relate to the same abstract idea and do any of the non-representative claims add one or more inventive concepts that would result in patent eligibility?”).

The Federal Circuit has repeatedly recognized that device and method claims need not be addressed separately when they “contain only ‘minor differences in terminology [but] require performance of the same basic process.’” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013) (“While it is not always true that related system claims are patent-ineligible because similar method claims are, when they exist in the same patent and are shown to contain insignificant meaningful limitations, the conclusion of ineligibility is inescapable.”); *Voter Verified, Inc., v. Election Systems & Software LLC*, No. 17-1930, 2018 WL 1882917, at *6 (Fed. Cir. Apr. 20, 2018) (finding that while the claims

encompass both methods and systems, there is “no distinction between them for § 101 purposes, as they simply recite the same concept.”) (internal citations omitted).

Claim 1 of the '468 Patent is representative of all the asserted claims for that patent because claim 24 is merely directed towards the method carried out by the device in claim 1. Thus, Claim 1 and 24 require performance of the same process.

Likewise, claim 1 of the '078 Patent is representative of all the asserted claims for that patent. Independent claim 9 is directed towards the method carried out by the device recited in claim 1 and, therefore, there is no distinction between them for § 101 purposes. Claim 3 depends from claim 1 and adds only the limitation that the claimed “form” be a web page. Claim 11 depends from claim 9 and adds a similar limitation that the “generating step” further comprises generating a webpage. As a web page is a common and well-known feature in computer technology, the limitations in claims 3 and 11 lack any technological innovation to the invention and do not impact the § 101 analysis.

In sum, claim 1 of each of the Patents-in-Suit is representative of the asserted claims for that patent. All of the other claims at issue differ in minor ways that fail to transform the underlying abstract idea into patent-eligible subject matter.

V. CONCLUSION

For the foregoing reasons, Defendants respectfully request that the Court find the claims of the Patents-in-Suit invalid under 35 U.S.C. § 101 and dismiss the Complaints for failure to state a claim.

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May 7, 2018

CERTIFICATE OF SERVICE

I hereby certify that on May 7, 2018, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

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EXHIBIT 1



US005895468A

United States Patent [19]

Whitmyer, Jr.

[11] Patent Number: 5,895,468

[45] Date of Patent: *Apr. 20, 1999

[54] SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES

5,758,328 5/1998 Giovannoli 705/26

[76] Inventor: Wesley W. Whitmyer, Jr., 198 Old Kings Hwy. S., Darien, Conn. 06820

[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: 08/726,999

[22] Filed: Oct. 7, 1996

[51] Int. Cl.⁶ G06F 17/30

[52] U.S. Cl. 707/10; 707/501; 707/513; 705/26; 395/200.47; 395/200.48

[58] Field of Search 707/9, 10, 513, 707/505-508, 501; 705/26, 1-9, 27; 395/200.33, 200.47, 200.48, 200.49

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Primary Examiner—Thomas G. Black

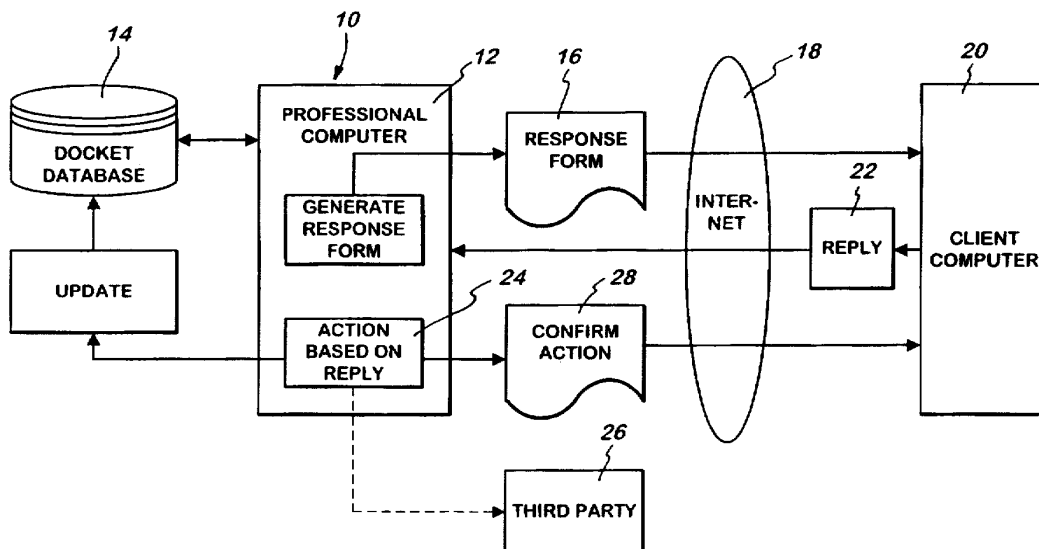
Assistant Examiner—Hosain T. Alam

Attorney, Agent, or Firm—St. Onge Steward Johnston & Reens LLC

[57] ABSTRACT

A device for automatically delivering professional services to a client is provided. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

27 Claims, 5 Drawing Sheets



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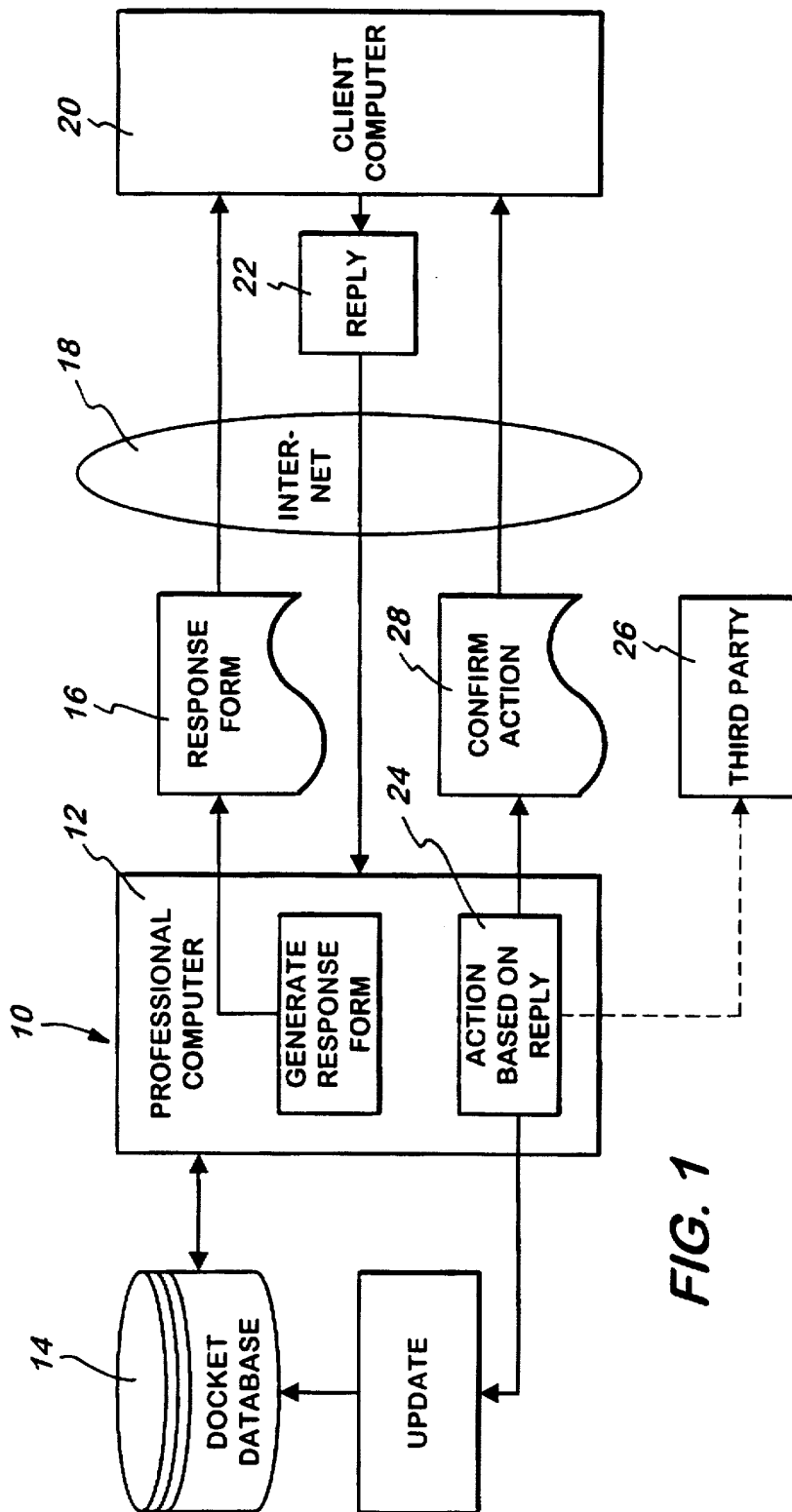


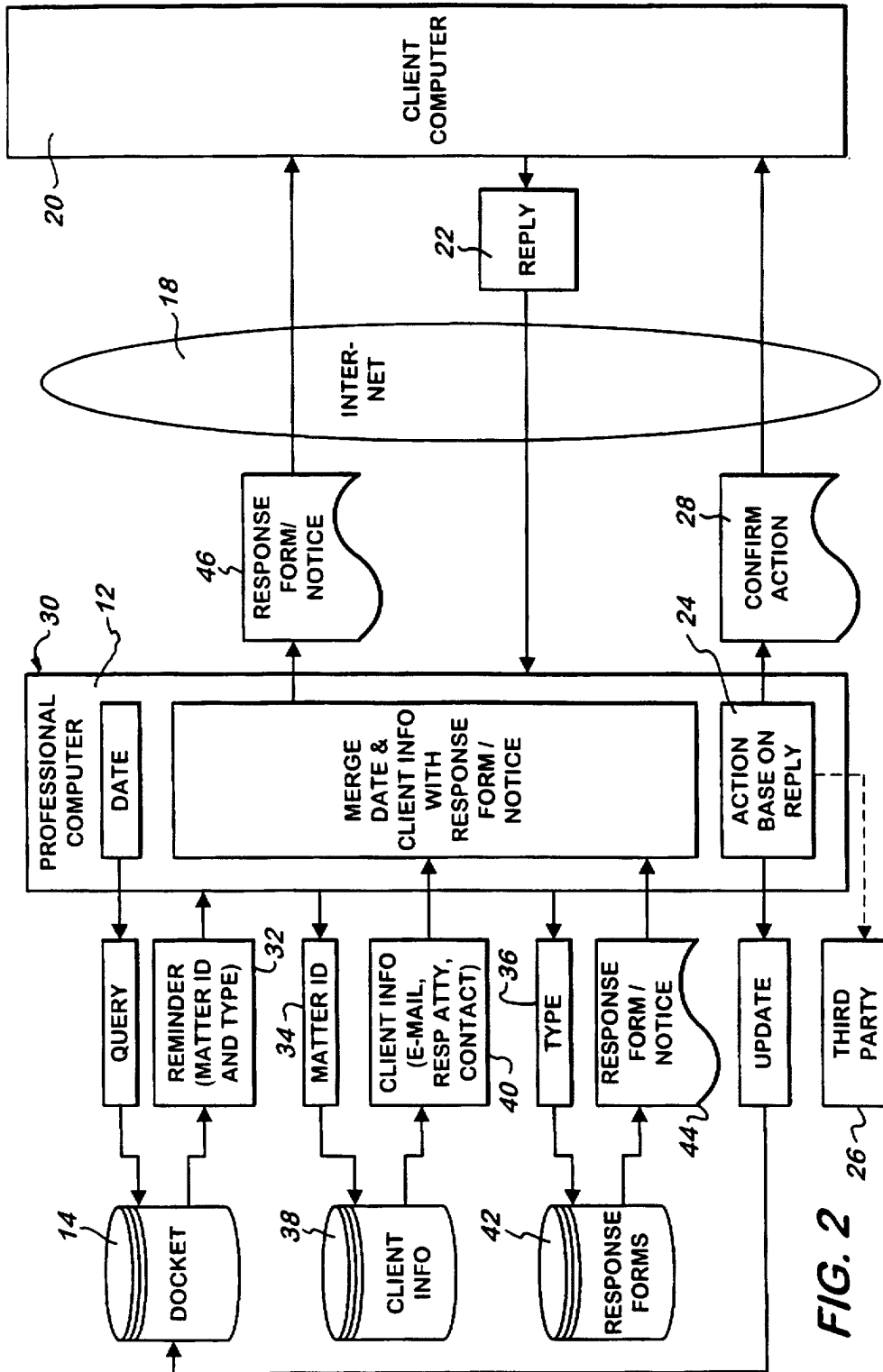
FIG. 1

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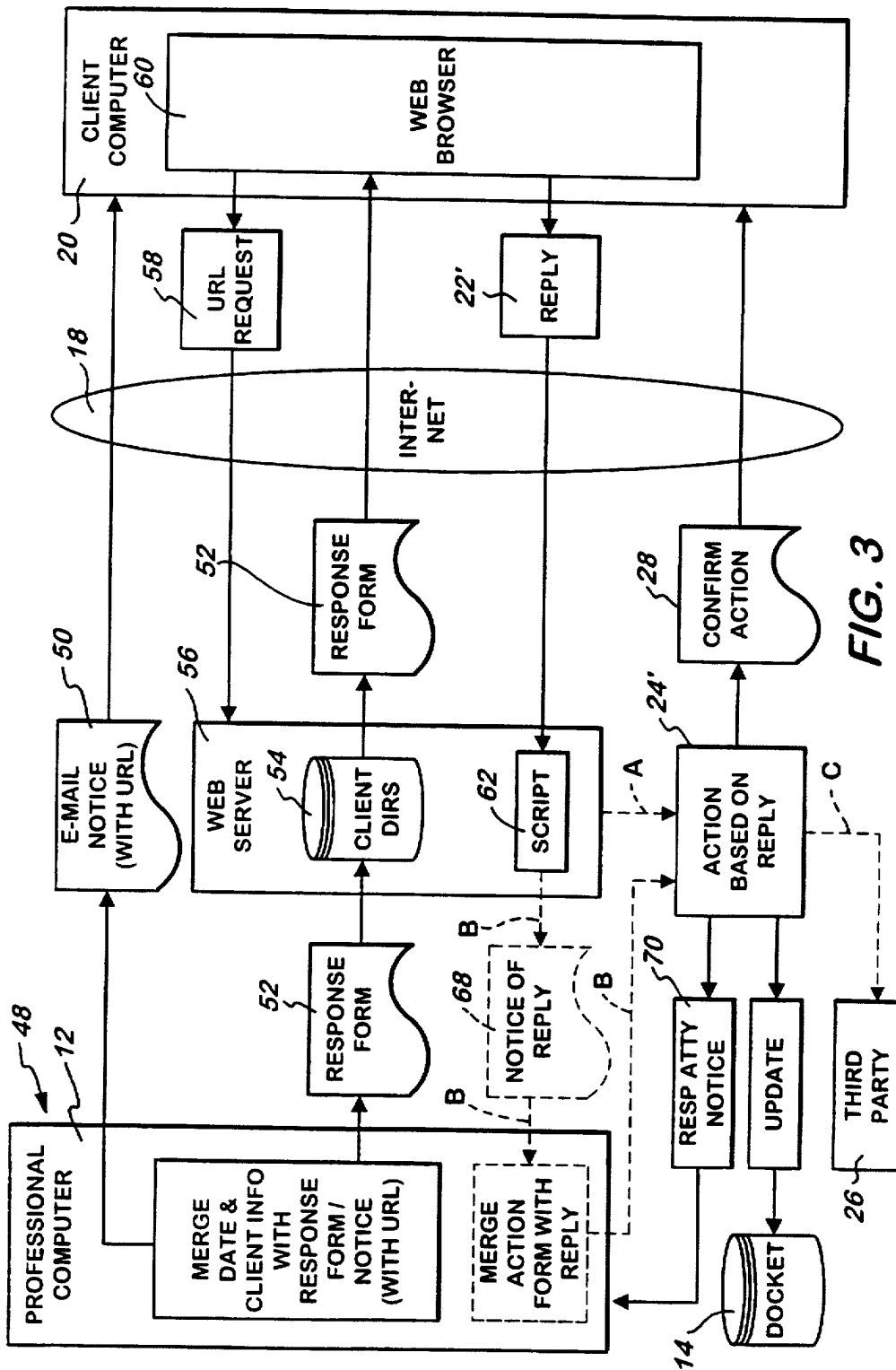


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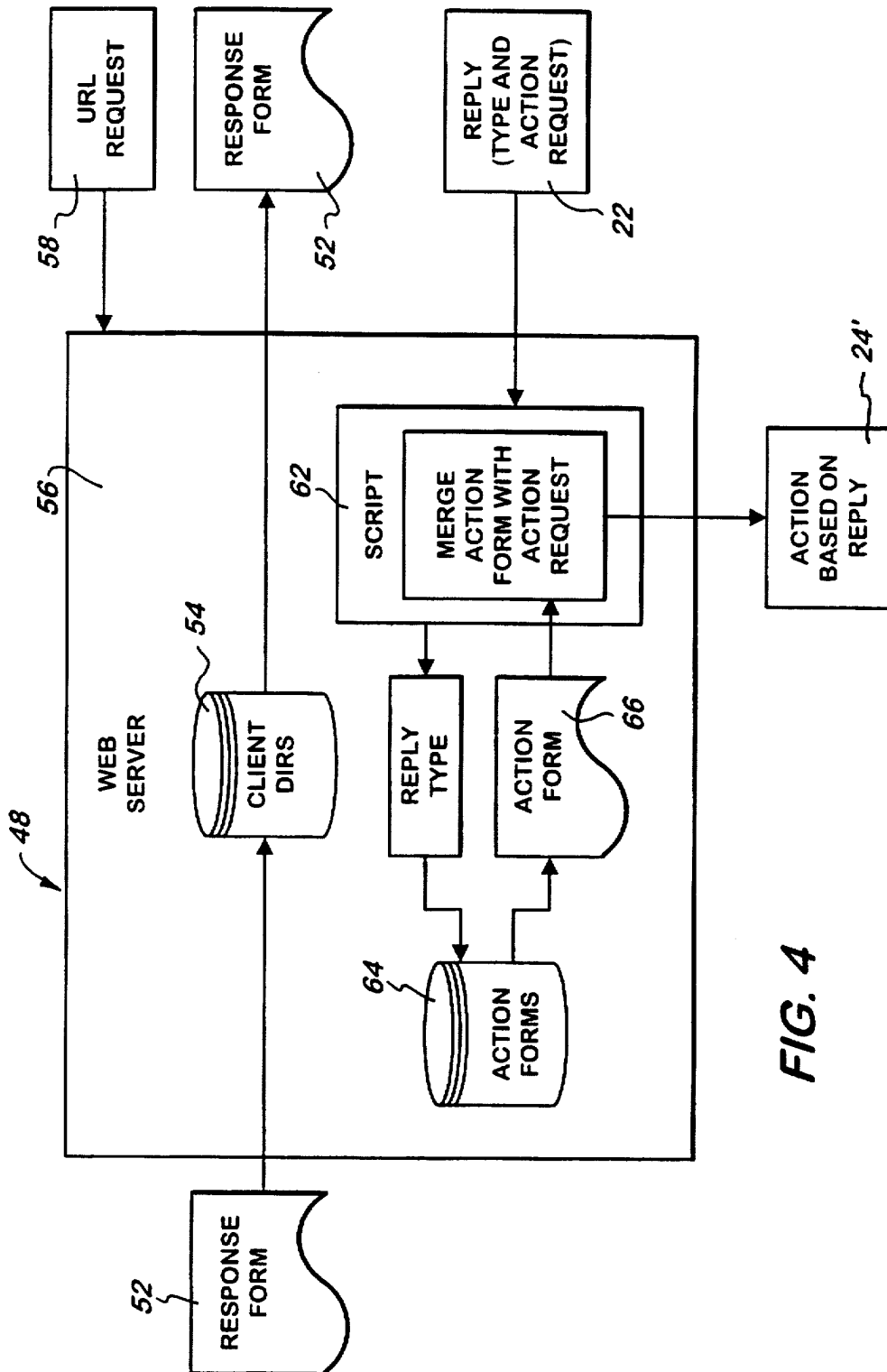


FIG. 4

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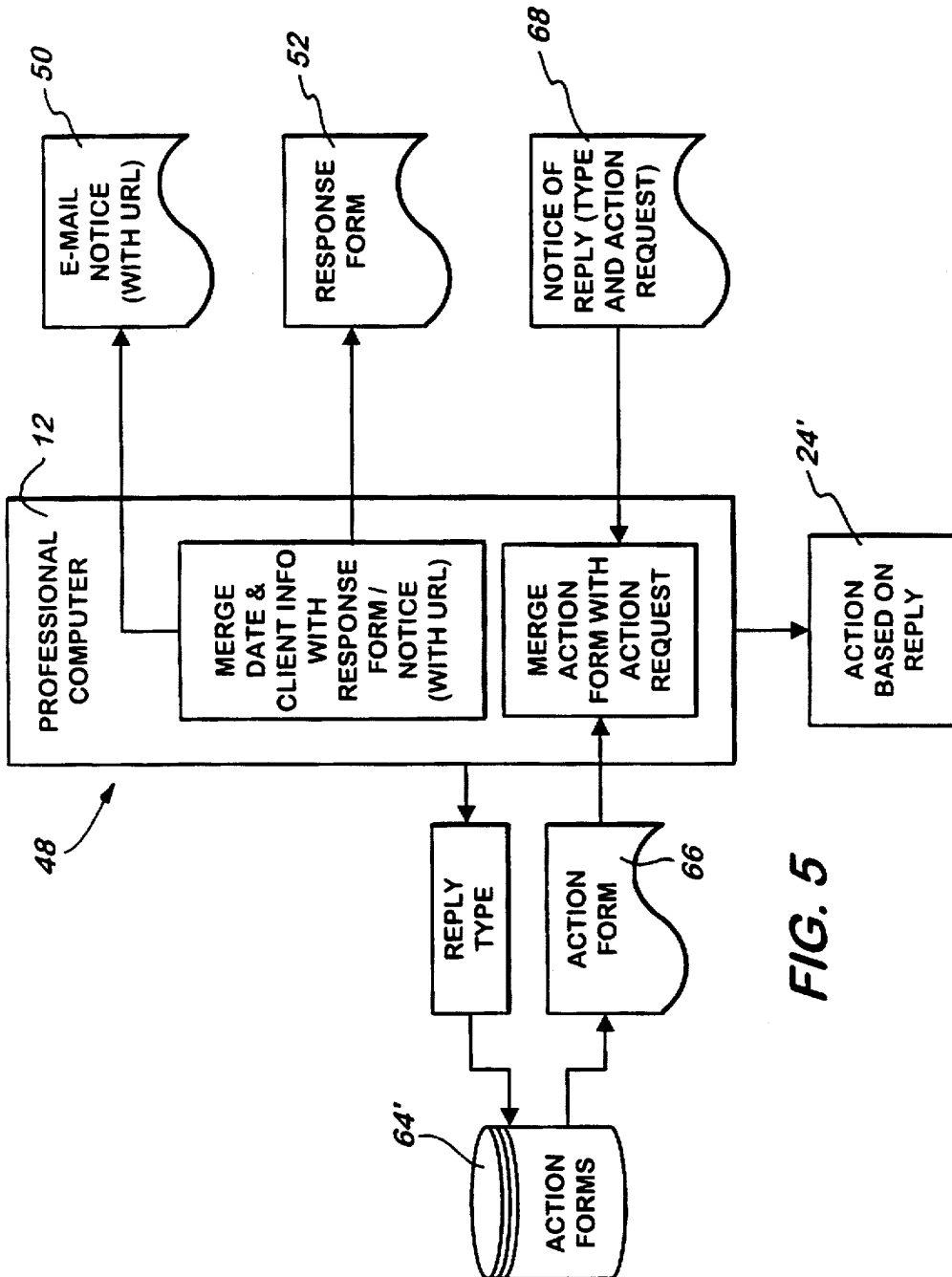


FIG. 5

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SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES

FIELD OF THE INVENTION

The invention relates to an automated system for preparing reminders and soliciting replies for client due dates, and more particularly to a device and method which communicates reminders and receives replies over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern commu-

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nication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a client response form based on the retrieved client reminder, and for automatically transmitting the client response form to the client through a communication link between the computer and the Internet.

Preferably, the device also includes software executing on the computer for automatically receiving a reply to the response form from the client through the communication link, for automatically generating a response based on the reply, and for automatically transmitting the response to a third party. The device also preferably includes software executing on the computer for automatically updating the database based on the reply, for automatically generating a confirmation based on the reply, and for transmitting the confirmation to the client through the communication link.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

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FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a response form 16 based on the retrieved client reminder and automatically transfers the response form 16 through an Internet communication link 18 to a client computer 20. The response form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

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Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment 30 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client email address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the response form/client notice 44, and automatically transmits the merged response form/client notice 46 by email through an Internet communication link 18 to a client computer 20. The merged response form/client notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged response form/client notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

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Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and response forms databases (not shown) to retrieve client information (not shown) and a response form/client notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the response form/client notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged response form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the response form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

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If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the confirmation 28 through the Internet communication link 18 to the client computer 20.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

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a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

2. The device of claim 1 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

3. The device of claim 2 further comprising software executing on said computer for automatically updating said database based on the reply.

4. The device of claim 3 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

5. A device for automatically delivering professional services to a client comprising:

- a computer;
- a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;
- software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;
- a client information database containing a plurality of client information;
- software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;
- a forms database containing a plurality of response forms;
- software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a response form;
- software executing on said computer for automatically merging the date and the client information with the response form;
- a communication link between said computer and the Internet;
- software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,
- software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

6. The device of claim 5 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

7. The device of claim 6 further comprising software executing on said computer for automatically updating said database based on the reply.

8. The device of claim 7 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

9. A device for automatically delivering professional services to a client comprising:

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a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL;

a web server;

software executing on said computer for automatically transmitting the client response form to said web server and for automatically transmitting the notice to the client; and,

software executing on said web server for automatically transmitting the response form to the client when the URL is activated and for automatically receiving a reply to the response form from the client.

10. The device of claim 9 further comprising software executing on said web server for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

11. The device of claim 10 further comprising software executing on said web server for automatically updating said database based on the reply.

12. The device of claim 11 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

13. The device of claim 9 further comprising:

- software executing on said web server for automatically generating a notice of reply based on the reply, and for automatically transmitting the notice of reply to said computer; and
- software executing on said computer for automatically receiving the notice of reply from said web server.

14. The device of claim 13 further comprising software executing on said computer for automatically generating a response based on the notice of reply, and for automatically transmitting the response to a third party.

15. The device of claim 14 further comprising software executing on said computer for automatically updating said database based on the notice of reply.

16. The device of claim 15 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

17. The device of claim 9 wherein said database comprises a docket database containing a plurality of client reminders, each of the client reminders including a matter identification number and a type of reminder identification, and wherein said software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL comprises:

- a client information database containing a plurality of client information;
- software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;
- a response forms database containing a plurality of response forms;
- software executing on said computer for automatically querying said response forms database by the type of reminder identifier to retrieve a response form;

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software executing on said computer for automatically merging the date and the client information with the response form; and,

software executing on said computer for automatically merging the date and the client information with a notice, the notice containing a URL.

18. The device of claim 17 wherein the reply to the response form contains an action type and an action request, and further comprising;

an action forms database containing a plurality of action forms;

software executing on said web server for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

19. The device of claim 18 further comprising software executing on said web server for automatically updating said docket database based on the reply.

20. The device of claim 19 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

21. The device of claim 17 further comprising:

software executing on said web server for automatically generating a notice of reply, the notice of reply containing an action type and an action request, and for automatically transmitting the notice of reply to said computer;

an action forms database containing a plurality of action forms;

software executing on said computer for automatically receiving the notice of reply from said web server, for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

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22. The device of claim 21 further comprising software executing on said computer for automatically updating said docket database based on the notice of reply.

23. The device of claim 22 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

24. A method for automatically delivering professional services to a client comprising the steps of:

providing a computer;

providing a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

querying said database by the values attributed to each client reminder date field to retrieve a client reminder; generating a client response form from the retrieved client reminder;

establishing a communication link between said computer and the Internet;

transmitting said client response form to the client through said communication link; and,

receiving a reply to the response form from the client through said communication link.

25. The method of claim 24 further comprising the steps of:

generating a response based on the reply; and

transmitting the response to a third party.

26. The method of claim 25 further comprising the step of updating said database based on the reply.

27. The method of claim 26 further comprising the steps of:

generating a confirmation based on the reply; and

transmitting the confirmation to the client through said communication link.

* * * * *

EXHIBIT 2



(12) **United States Patent**
Whitmyer, Jr.

(10) **Patent No.: US 6,182,078 B1**
 (45) **Date of Patent: *Jan. 30, 2001**

(54) **SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET**

(76) Inventor: **Wesley W. Whitmyer, Jr.**, 198 Old Kings Hwy., Darien, CT (US) 06820

(*) Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/453,728**

(22) Filed: **Dec. 2, 1999**

Related U.S. Application Data

(63) Continuation of application No. 09/237,521, filed on Jan. 27, 1999, now Pat. No. 6,049,801, which is a continuation-in-part of application No. 08/726,999, filed on Oct. 7, 1996, now Pat. No. 5,895,468.

(51) **Int. Cl.**⁷ **G06F 17/30**

(52) **U.S. Cl.** **707/10; 707/501; 707/513; 705/26; 709/217; 709/218**

(58) **Field of Search** **707/1-3, 10, 104, 707/8, 9, 200-203, 501, 513; 709/201-203, 217-219; 705/26**

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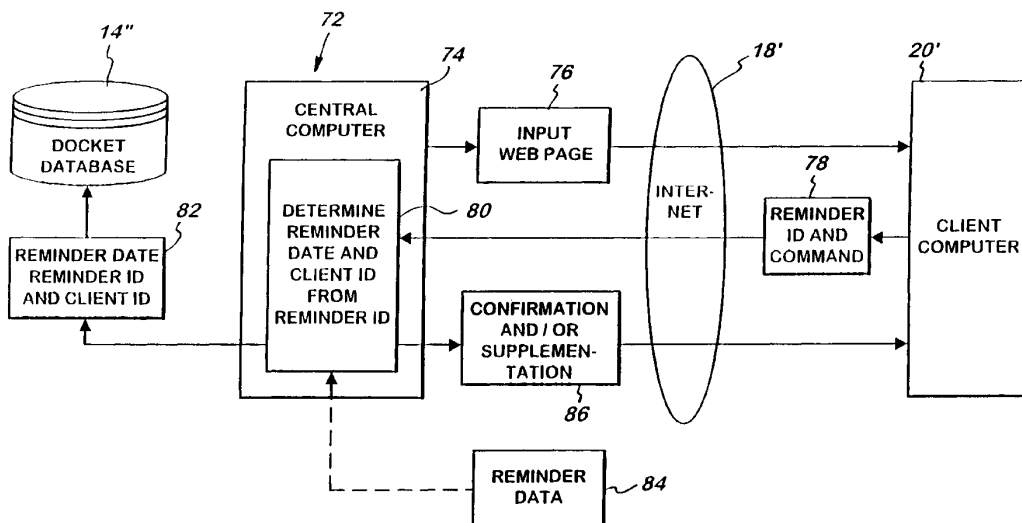
Primary Examiner—Hosain T. Alam

(74) Attorney, Agent, or Firm—St. Onge Steward Johnston & Reens LLC

(57) **ABSTRACT**

A system is provided to deliver professional services over the Internet. The system includes a computer, a database of client reminders, and software for automatically querying the database by values attributed to date fields to select reminders. The software also automatically generates a form based on the retrieved client reminder and transmits it to the client over the Internet. The system may include or comprise a web site.

11 Claims, 7 Drawing Sheets



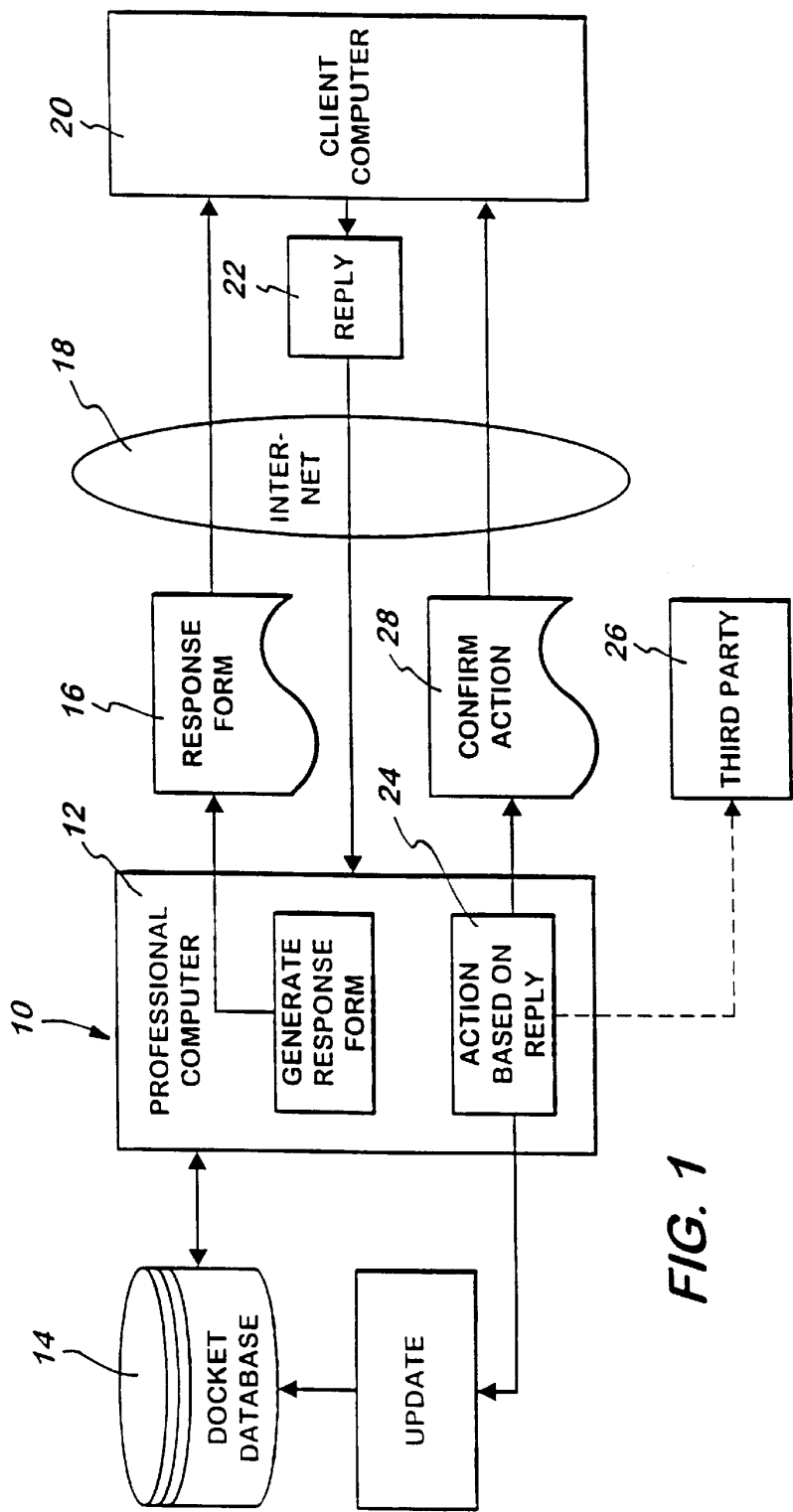


FIG. 1

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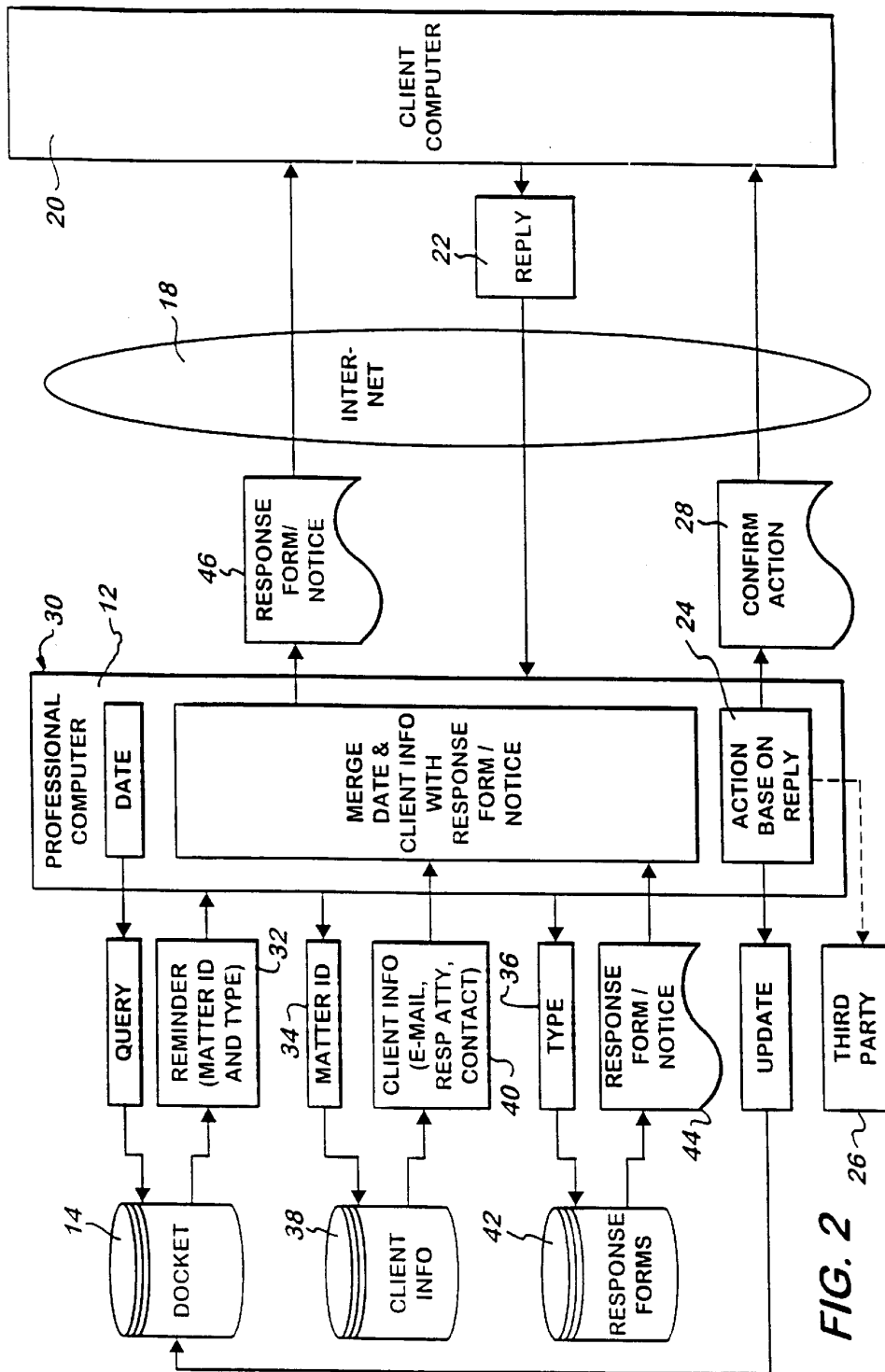


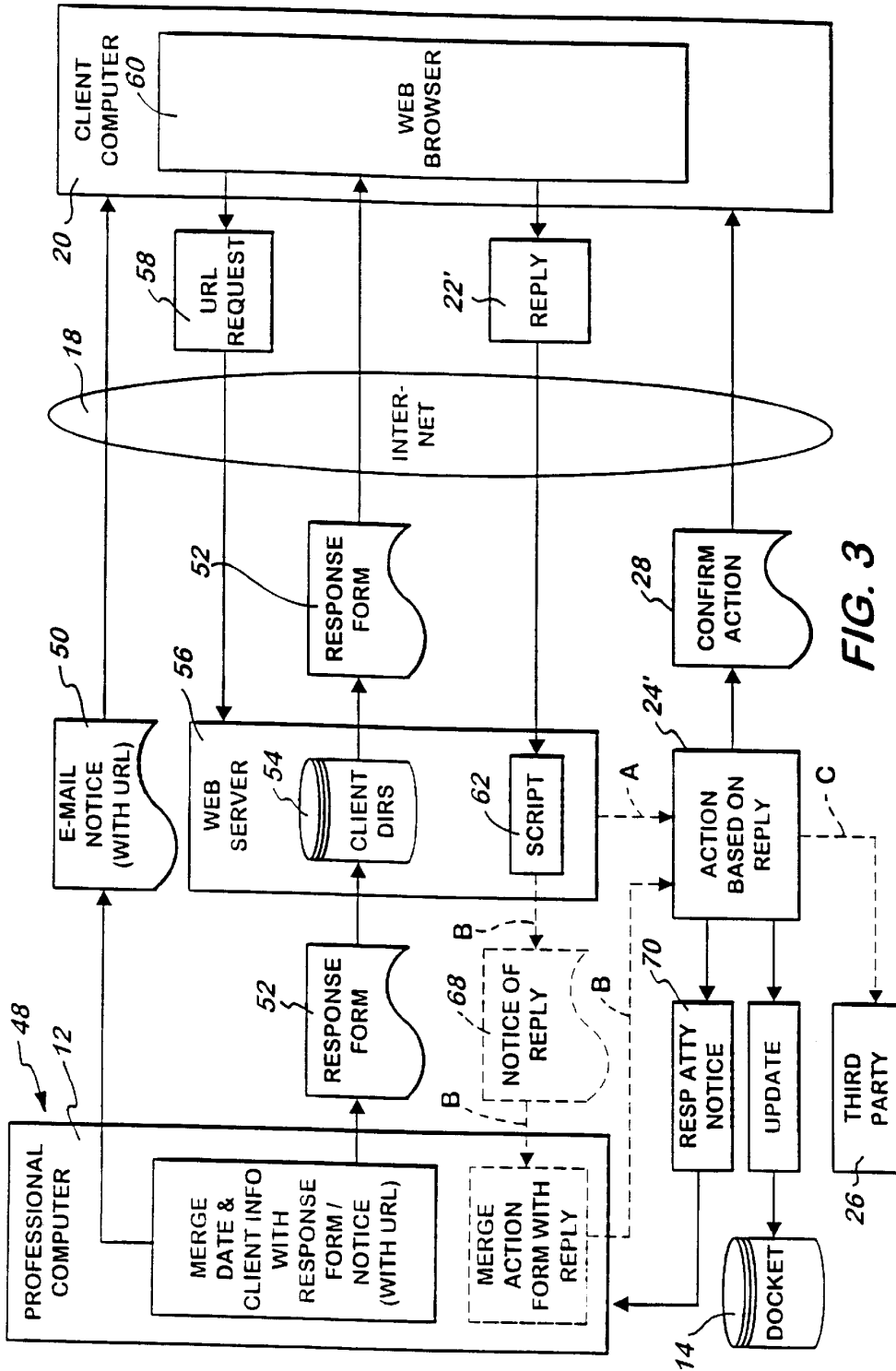
FIG. 2

U.S. Patent

Jan. 30, 2001

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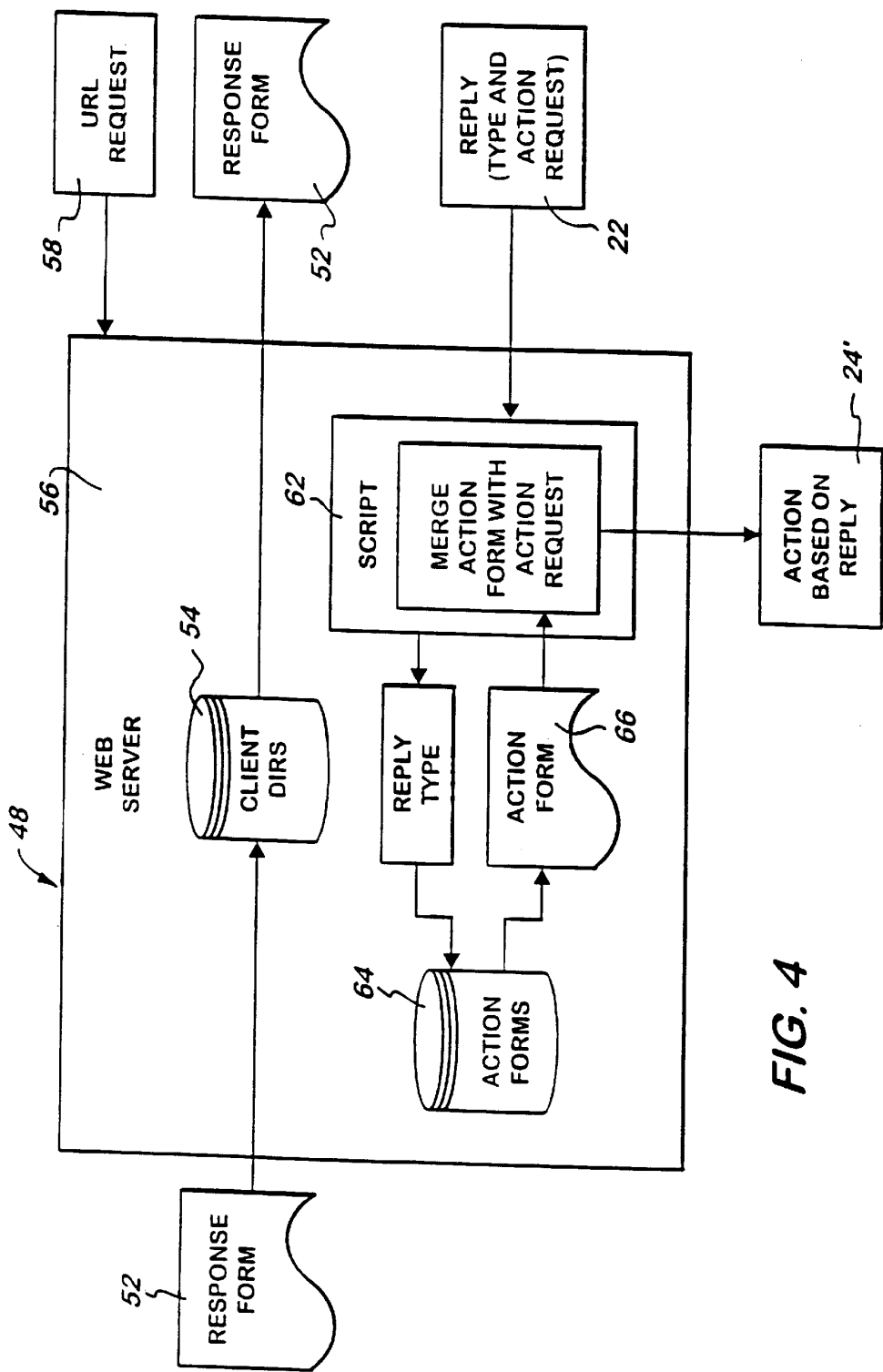


FIG. 4

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Jan. 30, 2001

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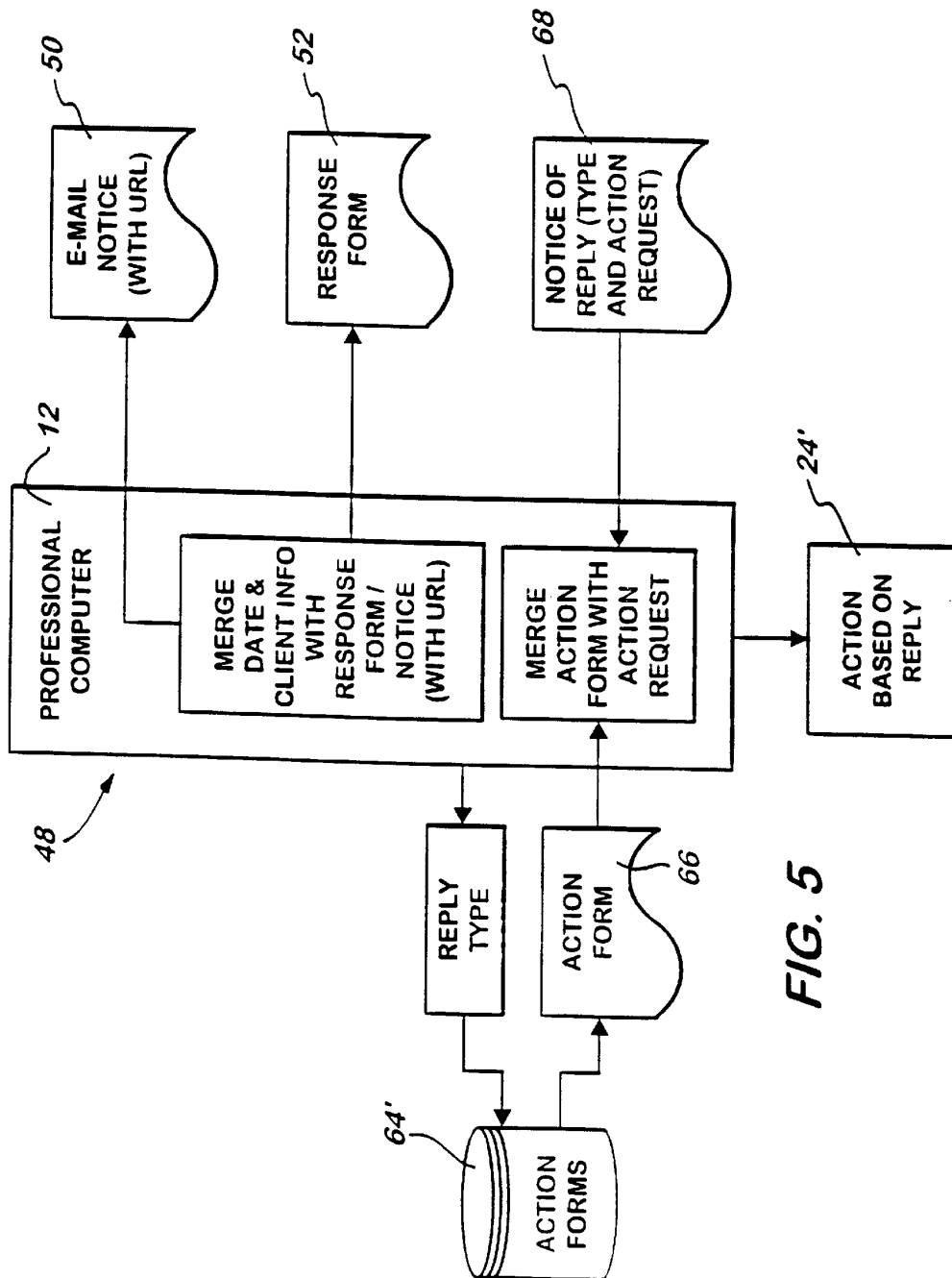
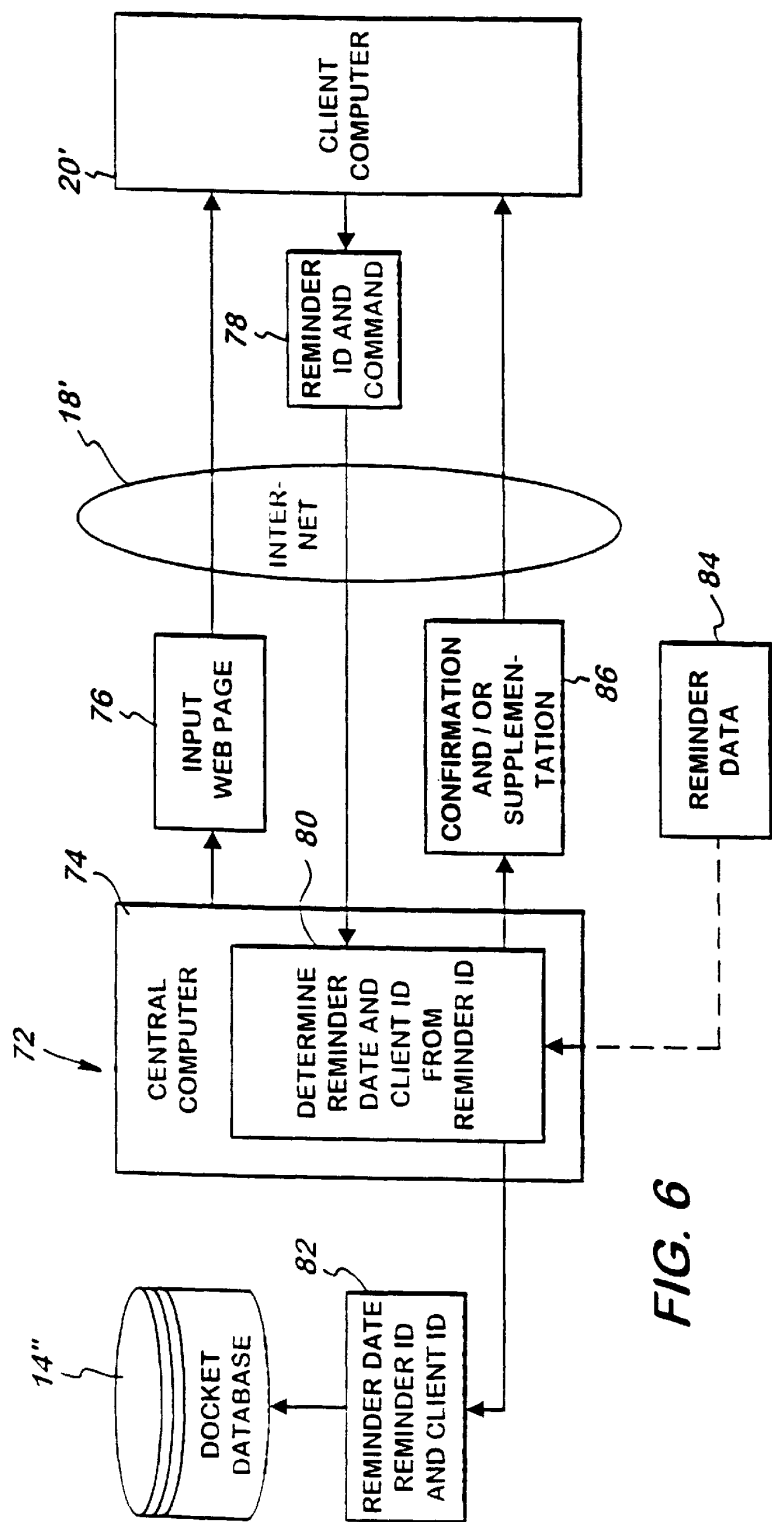
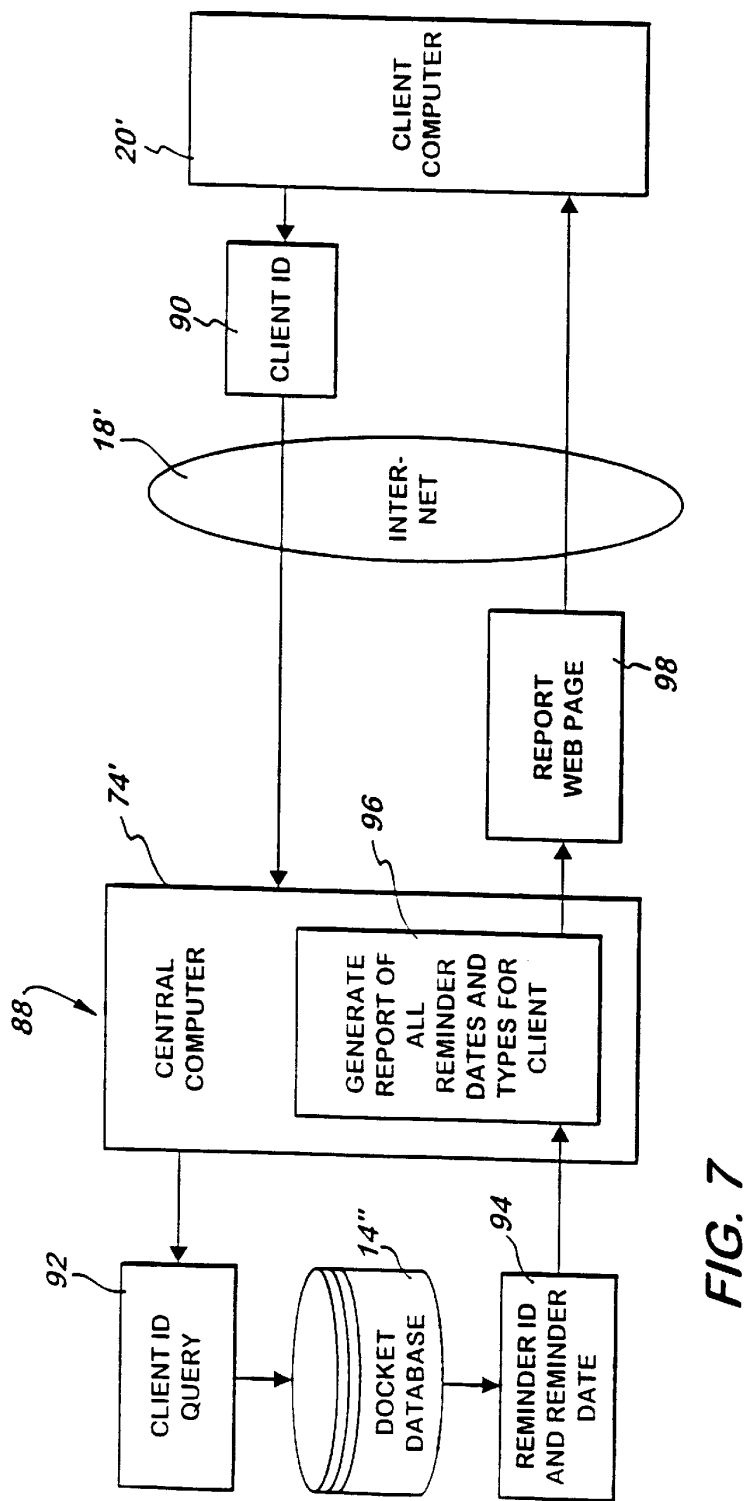


FIG. 5





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SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET

This application is a continuation of U.S. patent application Ser. No. 09/237,521 filed Jan. 27, 1999, now U.S. Pat. No. 6,049,801 which is itself a continuation-in-part of U.S. patent application Ser. No. 08/726,999, filed Oct. 7, 1996, now U.S. Pat. No. 5,895,468 issued Apr. 20, 1999.

FIELD OF THE INVENTION

The invention relates to a system for delivering professional services over the Internet.

BACKGROUND OF THE INVENTION

Many functions performed by attorneys and other professionals involve a series of deadlines. For example, oftentimes an attorney must send a client a reminder, obtain authorization or possibly executed documents from the client, and then take some action based on the client's response. Each of these actions must be performed in a timely manner, as clients may be required to pay enormous late fees, or may even lose rights altogether, due to a missed deadline. Moreover, these functions are often time-intensive, costly, and tedious, with professionals spending countless hours attempting to contact busy clients by telephone or by writing multiple letters attempting to elicit a response from the client. These problems are compounded by the fact that the typical professional has many clients, each client having many matters which the professional must constantly monitor.

Several systems have been developed for facilitating some of the functions which professionals must perform. Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, that step being examining a calendar periodically to notice upcoming deadlines. Even using a docketing system, the professional must still contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same. Each of the steps taken by the professional is often time-intensive and expensive. For example, corresponding by telefax, telephone, or express mail at each step of the process, often with parties in foreign countries, involves great expense, as does the time required to compose and send telefaxes, letters, and reminders, telephone clients or other necessary third parties, and manually update the docketing system.

Another disadvantage of docketing systems is that the system does not employ modern computer communications media, such as the Internet. Today's sophisticated clients are more apt to use, and often desire to use, new technologies for communication. These technologies greatly decrease the costs and increase the timeliness of communication, as evidenced by the low expense associated with Internet usage. Communication using the Internet is far less expensive and/or more timely than traditional communication

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using telephone, telefax, or express mail, which are the communication methods currently being employed by professionals. This is especially true of today's worldwide businesses which require communication with parties in many foreign countries. Moreover, using modern communication technology, the professional may transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals.

In one currently prevailing business model, the professional firm or service bureau maintains a docket database on behalf of a client or clients. A disadvantage of this approach is that the client does not have direct access over his/its data.

In another current approach, typically used by large corporations, the client has direct access and control over his/its data, but also must take responsibility for its security and accuracy, by maintaining hardware and software, and by proofing and reviewing the data as well as changes, e.g. in dates, fees and the like due to changes in the law of foreign jurisdictions.

What is desired, therefore, is an automated system for obtaining authorizations from clients prior to deadlines which will improve the speed, efficiency, and reliability of performing professional services for clients. Providing a system in which communications between the professional and the client take place over the Internet is also desired, as is a system which automatically acts on the authorization to perform or prepare the documents necessary to perform the professional service desired by the client. An automated system which provides clients with control over, but not responsibility for the data is also desired.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a device and method for use by professionals which improves the speed, efficiency, and reliability of performing services for clients.

Another object of the invention is to provide a device and method of the above character which automatically prepares reminders and solicits replies for client due dates.

A further object of the invention is to provide a device and method of the above character which transmits reminders and receives replies over the Internet.

Yet another object of the invention is to provide a device and method of the above character which automatically acts on the client's authorization to perform or prepare the documents necessary to perform the professional service desired by the client.

Still a further object of the invention is to provide a device and method of the above character which automatically composes and sends a confirmation of the service performed to the client.

Still yet another object of the invention is to provide a web site permitting clients direct access to the docket database used to automate providing of professional services on their behalf.

These and other objects of the invention are achieved by provision of a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. The device also includes software executing on the computer for automatically querying the database by date to retrieve a client reminder, for automatically generating a form based on the retrieved client reminder, and for auto-

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matically transmitting the form to the client through a communication link between the computer and the Internet.

In another aspect, the invention comprises a method of operating the computer and the device for automating delivery of professional services to a client.

The invention and its particular features and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a device and method for automatically delivering professional services to a client in accordance with the invention.

FIG. 2 is a block diagram of one specific embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 3 is a block diagram of another embodiment of the device and method for automatically delivering professional services to a client of FIG. 1.

FIG. 4 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 5 is a block diagram of a portion of the device and method for automatically delivering professional services to a client of FIG. 3.

FIG. 6 is a block diagram of a web site permitting direct client entry of reminders to the automated system of FIG. 1.

FIG. 7 is a block diagram of a web site enabling direct client reporting of reminders on the automated system of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 depicts a system 10 for automatically delivering professional services to a client in accordance with the invention. Software executing on a professional computer 12 automatically queries a docket database 14 by date to retrieve a client reminder (not shown). The docket database 14 is queried to retrieve client reminders on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders contain information pertinent to the upcoming professional service to be rendered, such as the client name, the client e-mail address, the type of service to be rendered, the deadline for the service to be rendered, the individual professional responsible for the client, the name of the client contact person, and others.

Software executing on the professional computer 12 automatically generates a form 16 based on the retrieved client reminder and automatically transfers the form 16 through an Internet communication link 18 to a client computer 20. The form 16 contains pertinent information contained in the client reminder as well as the client's options regarding the professional service to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Software executing on the client computer 20 receives the response form 16, allows the client to choose a desired option, automatically generates a reply 22 based on the client's response, and automatically transfers the reply 22 through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply 22 and performs

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some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 1 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, and others.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14 based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIG. 2, a specific embodiment of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 by date to retrieve a client reminder 32. The docket database 14 is queried to retrieve client reminders 32 on a periodic basis, e.g., daily, bi-weekly, weekly, etc. The client reminders 32 contain a matter identification number 34 and a type of reminder identification 36, which identifies the type of professional service to which the reminder pertains. Software executing on the professional computer 12 automatically queries a client information database 38 by the matter identification number 34 to retrieve client information 40. The client information 40 contains the client name, the individual professional responsible for the client, the client e-mail address, the name of the client contact person, and the like. Software executing on the professional computer 12 automatically queries a response forms database 42 by the type of reminder identification 36 to retrieve a response form/client notice 44. The response forms database 42 contains a plurality of response forms/client notices 44, which have been previously created and stored, and which are appropriate for different types of professional services to be performed.

Software executing on the professional computer 12 automatically merges the date and the client information 40 with the form/notice 44, and automatically transmits the merged form/notice 46 by email through an Internet communication link 18 to a client computer 20. The merged form/notice 46 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. Client computer 20 receives the merged form/notice 44, allows a client to choose a desired option, and generate a reply email 22 based on the client's response, through the Internet communication link 18 to the professional computer 12.

Preferably, software executing on the professional computer 12 automatically receives the reply email 22 and

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performs some action based on the reply 24 involving a third party 26. The type of action based on the reply 24 depends on the reply 22, and may include such actions as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client and transferring the document to the client. Note that the above examples of actions based on the reply 24 and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action based on the reply 24 and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 2 by a dashed line). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, software executing on the professional computer 12 automatically updates the docket database 14' based on the client's reply 22. Also, preferably software executing on the professional computer 12 automatically generates a confirmation email 28 based on the reply 22 and automatically transmits the confirmation 28 through the Internet communication link 18 to the client computer 20.

Referring to FIGS. 3-5, another embodiment 48 of the system 10 for automatically delivering professional services to a client is shown. Software executing on a professional computer 12 automatically queries docket database 14 and client information and forms databases (not shown) to retrieve client information (not shown) and a form/notice (not shown) in the identical manner as embodiment 30 shown in FIG. 2. Software executing on the professional computer 12 automatically merges the date and client information with the form/notice, automatically transmits the merged client email notice 50 through an Internet communication link 18 to a client computer 20, and automatically transmits the merged response form web page 52 to a client directory database 54 on a web server 56. The merged client email notice 50 contains a statement directed to the client that a deadline is approaching and that a response is necessary, and also contains a URL 58 which points to the response form web page 52. The merged form 52 contains the client's options regarding the professional services to be performed. Such options, for example, may include choices for alternative professional services or simply whether or not the client authorizes a professional service. The web server 56 may be a part of the firm computer 12 or may be independent, thus requiring a communication link (not shown) between the professional computer 12 and the web server 56. The client directory database 54 contains a password protected directory for each client of the professional into which the form web page 52 of each individual client is copied.

Software executing on the client computer 20 receives the merged client email notice 50, and upon the client activating the URL 58, causes a client web browser 60 to retrieve the merged response form 52 from the client directory database 54 on the professional web server 56 through the Internet communication link 18. The web browser 60 allows the client to choose a desired option, generates a reply 22' by way of a cgi script 62 running on the server or a java applet,activex control or the like running on the client computer (not shown) based on the client's response, and transmits the reply 22' through the Internet communication link 18 to the

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professional web server 56. The reply 22' contains an identification of the type of action to be taken and an action request, which reflects the choice made by the client. The script program 62 may either perform an action 24' based on the reply (designated by dashed line A in FIG. 3) or notify the professional computer 12 of the reply or the professional to perform an action 24' based on the reply (designated by dashed lines B in FIG. 3).

If the script program 62 is to perform the action based on the reply 24' (shown in FIG. 4), the script program 62 automatically queries an action forms database 64 on the web server 56 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64 contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. The script program 62 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26. If the script program 62 is to cause the professional computer 12 or professional to perform the action 24' based on the reply (shown in FIG. 5), the script program 62 automatically generates a notice of reply 68, which contains the type of action to be taken identification and the action request, and automatically transmits the notice of reply 68 to the professional computer 12. Software executing on the professional computer 12 automatically receives the notice of reply 68 and automatically queries an action forms database 64' on the professional computer 12 by type of action to be taken identification to retrieve an appropriate action form 66. The action forms database 64' contains a plurality of action forms 66 which have been previously created and stored, and which are appropriate for different types of professional services to be performed. Software executing on the professional computer 12 automatically merges the retrieved action form 66 with the action request to produce an action 24' based on the reply involving a third party 26.

Whether the action 24' based on the reply is performed by the script program 62 or by software executing on the professional computer 12, the type of action 24' based on the reply depends on the reply 22, and may include such things as generating a notice of the client's choice of an option and transferring the notice to the individual professional responsible for the client, generating a transfer of funds authorization and transferring the authorization to a bank, government agency, etc., or generating a document requiring execution by the client or professional. Note that the above examples of actions 24' based on the reply and examples of third parties 26 are for illustration only and it is understood that numerous other actions and third parties are within contemplation of the present invention. Also note that the action 24' based on the reply and the means of transmitting the result of those actions to a third party 26, if necessary, may vary (illustrated in FIG. 3 by dashed line C). Examples of such transmission means include, but are not limited to, the Internet communication link 18, a telefax, a direct modem link, U.S. mail, internal communications over a computer network, etc.

Preferably, the action 24' based on the reply includes automatically updating the docket database 14' based on the client's reply 22, and automatically generating a responsible professional notice 70 and transmitting the responsible professional notice 70 to the professional responsible for the client. Also, preferably the action 24' based on the reply includes automatically generating a confirmation email 28 based on the action 24' and automatically transmitting the

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confirmation **28** through the Internet communication link **18** to the client computer **20**.

Referring now to FIG. 6, a web site **72** is shown which permits direct client entry of reminders to the automated system for delivering professional services. Web site **72** includes a central computer **74** and a database **14**" which is accessible by central computer **74**. Software executing on central computer **74** generates an input web page **76** which can be retrieved by a client computer **20**', preferably but not necessarily through the Internet **18**'. The client enters a reminder identifier, a command for management of the reminder, and if desired, a request to perform a professional service, and then transfers this information **78** back to central computer **74**, again preferably through the Internet **18**'. The reminder identifier is indicative of a particular matter for which the professional is responsible. For example, in the case of an intellectual property attorney, the reminder identifier may include an intellectual property identifier, which may be a patent number or a trademark number. The command for management of the reminder may be, for example, a command to add data to the reminder, delete data in the reminder, or modify data in the reminder. The request to perform a professional service may include, in the intellectual property attorney example, a request for payment of an annuity or maintenance fee, or a request to file an intellectual property application.

The information **78** supplied by the client is received by central computer **74**, which has software **80** executing thereon for determining a reminder date and client identifier from the reminder identifier. The reminder date, reminder identifier and client identifier are then stored (indicated as **82**) on docket database **14**", thereby adding to, deleting from, or modifying the existing reminders stored on database **14**". Preferably, web site **72** includes a data source **84** which is used by software **80** to supplement and confirm the reminder identifier entered by the client before updating docket database **14**". Data source **84** may include, for example, a source of intellectual property data, including such data as the filing date and/or registration date of the intellectual property identifier, for confirming and/or supplementing the intellectual property identifier. Data source **84** may also include information such as the cost of the professional service requested. Preferably, software **80** generates a message **86** confirming and/or supplementing the reminder identifier entered by the client and transmits message **86** to client computer **20**' through the Internet **18**'.

Referring now to FIG. 7, a web site **88** is shown which enables direct client reporting of reminders on the automated system for delivering professional services. A client identifier **90** is entered by a client and transferred from client computer **20**' to central computer **74**' preferably, but not necessarily, through the Internet **18**'. Central computer **74**' uses client identifier **90** to query (shown as **92**) docket database **14**", which returns to central computer **74**' all reminder identifiers and reminder dates **94** associated with client identifier **90**. Software **96** executing on central computer **74**' generates a report of all reminder dates and reminder types returned by database **14**", generates a report web page **98**, and transfers report web page **98** to client computer **20**' preferably through the Internet **18**'. The report generated by software **96** may be organized by client identifier only, or may be organized by client identifier and then by client reference if such a client reference is sent at **90** with client identifier.

Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements

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or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a form based on the retrieved client reminder;

a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

2. The device of claim 1 wherein the form is an email message.

3. The device of claim 2 wherein the form is a web page.

4. A device for automatically delivering professional services comprising:

a computer;

a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a forms database containing a plurality of forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a form;

software executing on said computer for automatically merging the date and the client information with the form;

a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

5. The device of claim 4 where in the form is an email message.

6. The device of claim 4 wherein the form is a web page.

7. A device for automatically delivering professional services comprising:

a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

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software executing on said computer for automatically
generating a form and a notice based on the retrieved
client reminder, the notice containing a URL;
a web server;
software executing on said computer for automatically 5
transmitting the form to said web server and for auto-
matically transmitting the notice; and,
software executing on said web server for automatically
transmitting the form when the URL is activated. 10
8. The device of claim **7** when the notice is an email
message.
9. A method for automatically delivering professional
services comprising the steps of:
providing a computer;

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providing a database containing a plurality of client
reminders, each of the client reminders including a date
field having a value attributed thereto;
querying said database by the values attributed to each
client reminder date field to retrieve a client reminder;
generating a form from the retrieved client reminder;
establishing a communication link between said computer
and the Internet; and
transmitting said form through said communication link.
10. The method of claim **9** where in the generating step
further comprises generating an email message.
11. The method of claim **9** wherein the generating step
further comprises generating a web page.

* * * * *

EXHIBIT 3



PATENT
00100-P0017A WWW/TMO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	Wesley W. Whitmyer, Jr.
Serial No. 08/726,999	Filing Date: October 7, 1996
Title of Application	System Automating Delivery of Professional Services
Group Art Unit: 2771	Examiner: Hosain T. Alam

Box Non-Fee Amendment
Assistant Commissioner for Patents
Washington, DC 20231

Sir:

This is in response to the outstanding Office Action mailed March 9, 1998.

Please enter this amendment in the above-referenced application.

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GROUP 2700

REMARKS

Applicant's invention relates to a device for automatically delivering professional services to a client. The device includes a computer and a database containing a plurality of client reminders. Software executing on the computer automatically queries the database by date to retrieve a client reminder deadline,

Certificate of Mailing: I hereby certify that this correspondence is today being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231.

June 8, 1998

Fidelia K. Rice
Fidelia K. Rice

Applicant: Wesley W. Whitmyer, Jr.
Serial No: 08/726,999
Page 2

automatically generates a client response form based on the retrieved client reminder, and automatically transmits the client response form to the client through a communication link between the computer and the Internet. After the client completes the response form, the software executing on the computer automatically receives a reply to the response form from the client through the communication link.

The Examiner has rejected Claims 1-4, 9-17 and 24-27 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,548,753 to Linstead ("Linstead") in view of U.S. Patent No. 5,530,852 to Meske, Jr. *et al.* ("Meske") and Claims 5-8 and 18-23 under 35 U.S.C. §103(a) as being unpatentable over Linstead in view of Meske, and further in view of U.S. Patent No. 5,410,646 to Tondevold *et al.* ("Tondevold").

Linstead discloses a system for providing an indication of the occurrence of events within a database system. The system monitors a database for specific events and then generates and sends e-mail messages to specified users informing them of the events which have taken place. The Linstead system, however, does not automate the event itself (e.g., in the case of Linstead, generation of a purchase order without human intervention). In the illustration set forth in Linstead, a person prepares a purchase order using a computer application and electronically transmits the purchase order to his/her supervisor for authorization. (column 7, lines 19-25). The Linstead system notices this event (i.e., the transmission of the purchase order)

Applicant: Wesley W. Whitmyer, Jr.
Serial No: 08/726,999
Page 3

and composes an e-mail to the supervisor notifying the supervisor of the transmission. (column 7, lines 29-36). After the supervisor attaches a digital signature, he/she electronically transmits the authorized purchase order back to the preparer. (column 7, lines 36-41). The system again notices the transmission and prepares an e-mail message to the preparer (possibly with a cc: to other users, such as the accounting or purchasing personnel) notifying the preparer of the transmission. (column 7, lines 41-47). The system thus creates e-mail notifications that events have taken place, but does not automate the events.

The present invention as claimed, on the other hand, automates the actions themselves, thereby significantly reducing the human input required to effectuate, and improving the quality and reliability of, professional services. As recited in independent claims 1, 9 and 24, the present invention includes "software executing on [a] computer for automatically querying [a] database by date to retrieve a client reminder", "software executing on [a] computer for automatically generating a client response form based on the retrieved client reminder", and "software executing on [a] computer for automatically transmitting the client response form to the client." These actions eliminate the need for the human preparer as taught by Linstead.

Moreover, the present invention as claimed includes "a database containing a plurality of client reminders," and software for automatically querying a database by date to retrieve a client reminder. The claimed client reminders include deadlines for

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the services to be rendered. (Specification, page 5, line 20). As explained in the specification at page 5, lines 21-29 and page 7, lines 6-13, querying the database by date, as required by all claims, means identifying those reminders with impending deadlines and discarding those without impending deadlines. Thus, the present invention is a system where a large number of reminders can be stored, each reminder including a date field. Software, on a periodic basis, automatically examines the date field of each reminder to determine if any action is necessary at that time. If it is not, the reminder is skipped and checked again during the next cycle. The device disclosed in Linstead operates in a completely different way. When an event takes place (i.e., a user writing a purchase order and sending it to a supervisor), the device "writes a record to [a] predetermined storage location." (Linstead, column 7, lines 28-29). A daemon, running in a continuous loop, continuously checks the predetermined storage location "to determine if a data structure has been stored in the predetermined storage location." (Linstead, column 6, lines 66-67). In the claimed invention, however, a date field of numerous reminder records is periodically examined, and depending on the value of the field, not depending on the presence or absence of data in the field, the program either acts on or skips each reminder. The Linstead device, thus, continuously monitors a predetermined storage location to detect the presence or absence of data and takes action every time data is present.

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The present invention as claimed, therefore, provides an automated system for obtaining authorizations from clients prior to deadlines faster, more efficiently, and more reliability than the Linstead device, by automating many of the actions which would otherwise require manual entry by employees. Unlike the Linstead device, no action is taken for many reminder records in which date information is present because the value of the date data does not match the query date.

Meske discloses a computer-implemented method and device for retrieving information tailored to a user's specific interests from a larger volume of information. The device retrieves a plurality of information by profile and topic in a first markup language and parses the information into portions of information in a second markup language, including anchors referencing each of the portions of information to allow hypertext viewing and accessing. Examiner contends that it would have been obvious to one having ordinary skill in the art to combine Meske with Linstead to arrive at the claimed invention. However, the combination of the two prior art patents is improper. Each relates to a completely different application, and there is no motivation to combine the two. Moreover, even if the two were combined as the examiner suggests, the resulting device would not yield the present invention as claimed. Neither piece of prior art teaches or suggests the automating of professional services themselves or the querying of the date field of numerous reminders to determine if an action is to be taken, as discussed above with reference

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to the present invention as claimed. Thus, a combination of the two prior art devices would not yield such a system.

Tondevold discloses a device and method for electronically creating, processing, and storing forms and data. A user inputs data to complete the blank fields in a form generated by the system. After the data required by the form is input, the system transmits the data file, including the user inputs, to the appropriate user according to stored routing and form definitions.

Examiner contends that it would have been obvious to one having ordinary skill in the art to combine Tondevold with Meske and Linstead to arrive at the claimed invention. However, the combination of Tondevold with either of the other two prior art patents is improper. Combining the devices disclosed in Tondevold and Linstead would be redundant. Tondevold discloses a device which sends completed forms to specified users, while Linstead discloses a device which sends e-mail indicative of events to specified users. Sending both e-mail and completed forms to the specified users would serve no purpose and is not desirable, and thus such a combination would be improper. With respect to combining Tondevold with Meske, each relates to a completely different application, and there is no motivation to combine the two. Moreover, even if the three prior art patents were combined as the examiner suggests, the resulting device would not yield the present invention as claimed. None of the cited prior art teaches or suggests the automating of

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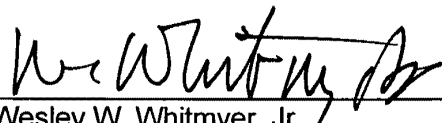
professional services themselves or the querying of the date field of numerous reminders to determine if an action is to be taken, as discussed above with reference to the present invention as claimed. Thus, a combination of the three prior art devices would not yield such a system.

Applicant submits that none of the cited references alone, nor any combination thereof, suggest an automated system for obtaining authorizations from clients prior to deadlines which automates many of the actions which would otherwise require manual entry, as claimed in the present invention.

As such, applicant submits that Claims 1-27 are patentable over the references of record and earnestly solicits allowance of same.

Respectfully submitted,

June 8, 1998


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PATENT
00100-P0017A WWW/TMO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	Wesley W. Whitmyer, Jr.
Serial No. 08/726,999	Filing Date: October 7, 1996
Title of Application	System Automating Delivery of Professional Services
Group Art Unit: 2771	Examiner: Hosain T. Alam

Box Non-Fee Amendment
Assistant Commissioner for Patents
Washington, DC 20231

TRANSMITTAL

Sir:

Enclosed for filing is a RESPONSE UNDER 37 C.F.R. § 1.115. No new claims are added and no further filing fee is required. Applicant believes that no extension of time is required, but the Commissioner is authorized to charge deposit account No. 19-4516 for any such fees if required.

Date: 6-8-98

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June 8, 1998

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Fidelia K. Rice

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IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

WHITSERVE LLC,)
)
Plaintiff,)
)
v.)
)
DONUTS INC. and)
NAME.COM, INC.,)
)
Defendants.)

C.A. No. 18-193 (GMS)

WHITSERVE LLC,)
)
Plaintiff,)
)
v.)
)
ENOM, LLC,)
)
Defendant.)
)
)
)

C.A. No. 18-194 (GMS)

PLAINTIFF'S BRIEF IN OPPOSITION OF DEFENDANTS' JOINT MOTION TO DISMISS

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I. Introduction

Plaintiff “WhitServe” owns United States Patent Nos. 5,895,468 (“’468 Patent”) and 6,182,078 (“’078 Patent”) (collectively, the “WhitServe Patents”). (D.I. 1, ¶ 13.) The Patents share a common specification that was first filed on October 7, 1996. (D.I. 1, ¶ 13.) Since 2006, WhitServe has granted licenses to the Patents to over twenty companies that have used the Patents, including many of Defendants’ competitors in the field of domain-name registration. (D.I. 1, ¶ 15.)¹ The Patents have withstood multiple reviews by various Examiners at the United States Patent and Trademark Office (“USPTO”). (*See* Ex.² A, Order Denying *Ex Parte* Reexamination of ’468 Patent (USPTO Nov. 19, 2012); Ex. B, ’468 Patent Notice of Allowance; Ex. C, ’078 Patent Notice of Allowance). The Patents also have been the subject of multiple infringement cases and validity attacks resulting in decisions favorable to WhitServe. (D.I. 1, ¶ 17-18.). Specifically, unsuccessful validity attacks under 35 U.S.C § 101 have been considered by multiple district courts, the Federal Circuit and United States Supreme Court. (*Id.*) Defendants motion offers no new evidence or arguments than what has already been considered.

WhitServe contends that Defendants have infringed at least claims 1 and 24 of the ’468 Patent, and least claims 1, 3, 9, and 11 of the ’078 Patent. (D.I. 1, ¶ 22 & 31.) The claims are directed to improving the efficiency, reliability, and speed of communication systems used for obtaining instructions from various entities around the world. (D.I. 1-1 at 6:55-10:37³ (claims of the ’468 Patent); 1-2 at 8:3-10:13 (claims of the ’078 Patent).)

¹ WhitServe’s Licensees include two of the largest domain name registrars, GoDaddy and Endurance International Group.

² “Ex.” refers to the Exhibits filed concurrently with this brief. Citations within Exhibits are made to internal page numbers, unless otherwise specified.

³ Citations to patents in this brief are made in column:line format. For simplicity, because the ’468 and ’078 Patents share a common specification, citations are only made to the ’468 Patent’s specification.

Defendants offer no description of what the alleged abstract idea of the claims is, and how the claims are directed to said idea. Defendants also fail to prove by clear and convincing evidence that the claimed combination is well-understood routine and conventional as required in a 35 U.S.C. § 101 analysis. Lastly, the WhitServe Patents do not pre-empt any field or business; in fact many of WhitServe's licensees have changed over time from a noninfringing system to the infringing system to achieve the benefits of the invention. Defendants do not meet their required burden for proving the invalidity of the Patents, and as such their motions to dismiss should be denied.

II. Legal Standard

In considering a motion to dismiss, the court “accept[s] all factual allegations as true, construe[s] the complaint in the light most favorable to the plaintiff, and determine[s] whether, under any reasonable reading of the complaint, the plaintiff may be entitled to relief.” *Bristol-Myers Squibb Co. v. Merck & Co., Inc.*, No. 15-572-GMS, 2016 WL 1698385, at *1 (D. Del. Mar. 29, 2016). Additionally, a patent is entitled to a presumption of validity under 35 U.S.C. § 282(a), which applies to a Court's determination of subject matter eligibility.

“Rarely can a patent infringement suit be dismissed at the pleading stage for lack of patentable subject matter.” *Bristol-Myers Squibb Co.*, 2016 WL 1698385 at *1. “At the motion to dismiss stage, a patent claim can be found directed towards patent-ineligible subject matter if the only plausible reading of the patent must be that there is clear and convincing evidence of ineligibility.” *Id.* It is Defendants' burden, “not only to argue, but to submit evidence establishing the invalidity of each claim it asserted to be invalid” *Shelcore, Inc. v. Durham Indus., Inc.*, 745 F.2d 621, 624 (Fed. Cir. 1984).

III. Arguments

Defendants argue that the claims at issue are invalid under 35 U.S.C § 101. (*See* D.I. 13.) Defendants erroneously interpret the requirements of § 101 based on decisions that are clearly distinguishable on their facts from the present case. Defendants merely state, without analysis or evidence, that the claims at issue are directed to an abstract idea and do not recite an inventive concept. The WhitServe Patents, however, are directed to systems requiring specific structural components, not a mental process. Defendants also erroneously conclude that claim 1 is a representative claim, when dependent claims clearly add further specific structure and build on the inventive concept of the independent claim. Defendants offer no rebuttal to the fact that their competitors' licenses show the WhitServe Patent claims recite a clear inventive concept, improve on prior art, and do not preempt others from practicing the field.

A. The Validity Of The Claims Has Been Upheld By The Courts And The USPTO

The claims in question have been reviewed by the USPTO three times. The claims were initially found eligible for patent protection when each of the Patents was granted. (Ex. B, Notice of Allowance for '468 Patent (Examiner Alam and Supervisory Patent Examiner Black); Ex. C, Notice of Allowance for '078 Patent (Examiner Alam, who by this time had been promoted to a Primary Examiner)). In addition, at least three USPTO Examiners reviewed the '468 Patent again when considering an *ex parte* reexamination request that set forth § 101 invalidity arguments. (*See* Ex. A, Order Denying *Ex Parte* Reexamination No. 90/012,454 (USPTO Nov. 19, 2012) (Primary Examiner Hotaling II, Examiner /C.S./, Supervisory Patent Examiner Brooks); *Ex Parte* Reexamination Request, Ex. F at 19-22 (briefing § 101 issues.) Despite the high success rate of such requests, reexamination of the '468 patent was denied, with the Examiners having found no substantial new question of patentability of claims 1-27. (*Id.* at 6.)

The validity of the WhitServe Patents under § 101 was also raised in *WhitServe LLC v. Computer Packages, Inc.* Computer Packages, Inc. (“CPi”) was unable to invalidate the WhitServe Patents and a jury found all of the asserted claims willfully infringed. (D.I. 13, ¶17; *WhitServe, LLC v. Computer Packages, Inc.*, No. 3:06-cv-01935-AVC, D.I. 365 (Jury Verdict) (D. Conn. May 26, 2010).) On appeal, the Federal Circuit questioned the parties regarding § 101. (Ex. D, 66a-107a.)⁴ In response to the panel’s questions, counsel for WhitServe distinguished the claimed subject matter from abstract ideas noting that it includes device claims directed to computer hardware and the physical interaction between components. The Federal Circuit upheld the claims and affirmed CPi’s infringement. *WhitServe v. Computer Packages, Inc.*, 694 F.3d 10 (Fed. Cir. 2012). The Federal Circuit subsequently denied CPi’s request for a rehearing *en banc* as to whether patents claimed statutory subject matter under 35 U.S.C. § 101. (Petition for Writ of Certiorari, Ex. D at 8, 62a-63a.) Following the Federal Circuit’s denial of CPi’s request for a rehearing *en banc*, CPi filed a Petition For a Writ of Certiorari with the Supreme Court of the United States requesting review of the patents under 35 USC. § 101. (Ex. D at cover-i.) CPi’s Petition to the United States Supreme Court was denied. *Computer Packages, Inc. v. WhitServe, LLC*, 568 U.S. 1162, 133 S. Ct. 1291 (2013).

From 2011 to 2015, WhitServe was in litigation against Defendants’ direct competitor GoDaddy.com. *WhitServe LLC v. GoDaddy.com, Inc.*, No. 3:11-cv-00948-JCH (D. Conn.) (hereinafter “GoDaddy”); (D.I. 1, ¶ 18). As outlined in WhitServe’s Complaint (D.I. 1, ¶ 18), the Court orders in the GoDaddy case that were favorable to WhitServe included: claim construction (GoDaddy D.I. 301 (Apr. 16, 2013)); summary judgment on invalidity defenses

⁴ A recording of the oral argument is available at the website of the United States Court of Appeals for the Federal Circuit <http://oralarguments.ca9.uscourts.gov/default.aspx?fl=2011-1206.mp3>

under Sections 101, 102, 103, and 112, non-infringement defenses, and patent marking (GoDaddy D.I. 304 (May 3, 2013)); summary judgment on claim definiteness (65 F.Supp.3d 317 (D. Conn. 2014)); renewed motions on 35 U.S.C. § 101 and claim definiteness (GoDaddy D.I. 337 (Dec. 19, 2014)); and a trial on the defense of laches (2015 WL 4464476 (D. Conn. July 21, 2015)).

Notably, the Court denied GoDaddy's Renewed Motion for Summary Judgment of Invalidity Under 35 U.S.C. § 101 after the Supreme Court decided *Alice* **in June 2014**. The case settled in the summer of 2015. (GoDaddy D.I. 433 (Aug. 4, 2015).)

As the USPTO and other Courts have already found, the patents in question are undeniably valid. The prosecution and prior litigation history demonstrates clear and convincing evidence of eligibility, requiring the dismissal of the of the Defendants' motion. Significantly, Defendants offer no new evidence or arguments in seeking to relitigate 35 USC. § 101 eligibility of the WhitServe Patents.

B. Motion To Dismiss Is Inappropriate

As a threshold issue, a Motion to Dismiss is inappropriate if there remain questions of fact to be decided. "Patent eligibility can be determined at the Rule 12(b)(6) stage only when there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law." *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1356 (Fed. Cir. 2018). "Plausible factual allegations may preclude dismissing a case under § 101 where, for example, 'nothing on th[e] record ... refutes those allegations as a matter of law or justifies dismissal under Rule 12(b)(6).'" *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016) (quoting *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1352 (Fed. Cir. 2016)). In the present matter, "[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination."

Berkheimer v. HP Inc., 881 F.3d 1360, 1369 (Fed. Cir. 2018). To understand whether each of the limitations recited in the independent and dependent claims “may require weighing evidence to determine whether the additional limitations beyond the abstract idea, natural phenomenon, or law of nature would have been well-understood, routine, and conventional to an ordinarily skilled artisan.” *Aatrix Software, Inc.*, 890 F.3d at 1356.

“Because the patent challenger bears the burden of demonstrating that the claims lack patent eligibility, 35 U.S.C. § 282(a), there must be evidence supporting a finding that the additional elements were well-understood, routine, and conventional.” *Aatrix Software, Inc.*, 890 F.3d at 1356. Here, Defendants have not discussed or provided any evidence as to the well-understood, routine or conventional nature of any of the limitations of the independent or dependent claims. For instance, Defendants have not analyzed limitations of independent claim 1 of the ‘468 patent as “software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder” or “software executing on said computer for automatically generating a client response form based on the retrieved client reminder” or “software executing on said computer for automatically transmitting the client response form to the client through said communication link.” (’468 Patent Claim 1, D.I. 1-1 at 6:63-7:5.) Defendants also fail to provide similar evidence regarding dependent claim 3 of the ‘078 Patent, which requires the form being a web page. (’078 Patent Claim 3, D.I. 1-2 at 8:25.) The discussed limitations were improvements on the state of the art technology at the time of the invention and are far from being well-understood, routine, and conventional at the time of the patent. (D.I. 1-2 at 2:28-33.)

C. Patents 5,895,468 And 6,182,078 Not Ineligible Under § 101

35 U.S.C. § 101 defines patent eligible subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof,” subject to the other limitations of the Patent Act. 35 U.S.C. § 101. Judicial exceptions to the literal scope of § 101, including “laws of nature, natural phenomena, and abstract ideas.” *See Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354, 189 L. Ed. 2d 296 (2014) (discussing judicially created exceptions) (internal quotations omitted).

In *Alice*, the Court applied a two-step framework for analyzing whether claims are patent eligible. *See id.* at 2355. The party challenging a patents’ subject matter eligibility bears the burden of proving both steps of the *Alice* inquiry by clear and convincing evidence. 35 U.S.C. § 282.

In *step one*, Courts must “determine whether the claims at issue are directed to a patent-ineligible concept,” including whether the claim at issue is “directed to” a judicial exception, such as an abstract idea. *Id.* “If the claims are not directed to an abstract idea, the inquiry ends.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) ; *see Alice*, 134 S. Ct. at 2355.

If the claims are ‘directed to’ an abstract idea, only then the inquiry proceeds to the second step of the *Alice* framework. *Id.* *Step two* requires court to determine if claims contain an “inventive concept” sufficient to “transform the nature of the claim into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355. For instance, an inventive concept can be found where “the claims were “designed to solve a technological problem in `conventional industry practice.”” *Id.* at 2358.

1. Step One Alice: The Claims are Not Directed to an Abstract Idea

The claims are not directed to an abstract idea. The first step of the *Alice* analysis requires asking whether claims contain an abstract idea, and whether claims are directed to said abstract idea. Defendants fail to not only define an abstract idea, but also fail to demonstrate that the claims are actually “directed” to an abstract idea.

“The Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the Mayo/*Alice* inquiry.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). The Supreme Court has recognized, however, that “fundamental economic practice[s],” *Bilski v. Kappos*, 561 U.S. 593, 611 (2010), “method[s] of organizing human activity,” *Alice*, 134 S. Ct. at 2356, and mathematical algorithms, *Gottschalk v. Benson*, 409 U.S. 63, 64 (1972), are abstract ideas. In navigating the parameters of such categories, courts “compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish*, 822 F.3d at 1334. “But in determining whether the claims are directed to an abstract idea, we must be careful to avoid oversimplifying the claims because ‘[a]t some level, all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (alterations in original) (*quoting Alice*, 134 S. Ct. at 2354).

The WhitServe Patents are not directed to any of the above previously-identified abstract ideas, including fundamental economic practices, methods of organizing human activity, or mathematical algorithms. The asserted claims are far from “abstract” as they embody physical, concrete limitations sufficient to resolve Defendants 12(b)(6) motion. The lack of any abstract concept is illuminated by Defendants’ inability to identify a consistent abstract idea upon which to base its motion. Tellingly, Defendants have failed to follow Federal Circuit and Supreme Court practice of “compar[ing] [the] claims at issue to those claims already found to be directed

to an abstract idea in previous cases.” *Enfish*, 822 F.3d at 1334. “[The defendant’s] own varying formulations of the underlying abstract idea illustrate [the] difficulty” in “identifying the precise nature of the abstract idea.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). Oversimplifying WhitServe’s claims as “abstract,” Defendants offer several inconsistent proposals while searching for the abstract idea including:

reminding clients of needed professional services based on
upcoming due dates and communicating with clients to receive
their responses to those reminders.

(D.I. 13 at 6);

The claims of the Patents-in-Suit are directed to the abstract idea of
reminding clients of needed professional services based on
upcoming due dates and communicating with the clients to receive
their responses to those reminders.

(D.I. 13 at 14);

The claims of the Patents-in-Suit lack any technological specificity
and seek to encompass any computer systems that “automatically”
deliver professional services.

(D.I. 13 at 14);

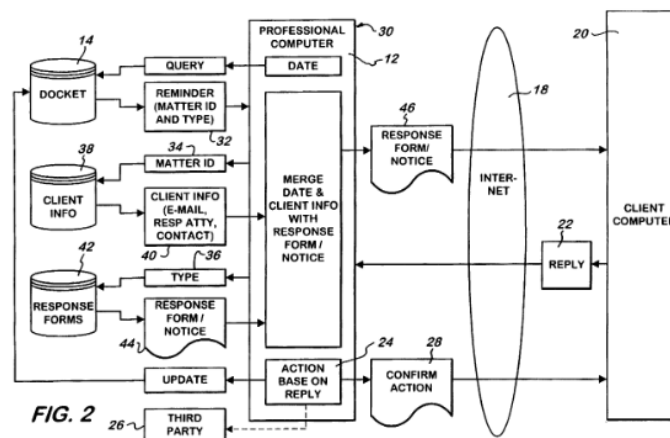
The specification also makes no reference to any computer
functionality improvement and, to the contrary, makes plain that
the claims simply add conventional computer technology to a
business practice.

(D.I. 13 at 16).

Defendants’ failure to analyze specific limitations of the claims leads them to draw
conclusory tenuous similarities to readily-distinguished case law. However, the only conclusion
that an analysis of the specific limitations of the asserted claims yields is that there is more than
an “abstract idea” in the asserted claims.

Moreover, Defendants' varying attempts to recite an abstract idea improperly oversimplifies the claims by focusing on a few carefully selected terms. Defendants downplay the inventive benefits of the WhitServe Patents by ignoring the claims' required specific physical structure, the patentability of which is a basic tenet of patent law. Just as in *Enfish*, this is error. *Enfish*, 822 F.3d at 1337 ("In finding that the claims were directed simply to 'the concept of organizing information using tabular formats ... the district court over-simplified the self-referential component of the claims and downplayed the invention's benefits.'").

The WhitServe Patents and claims cover a specific structure of physical components specific databases and specific software to generate specific items and perform specific functions as shown in Figure 2 below.



('468 Patent Figure 2, D.I. 1-1 at 6.)

For example, the WhitServe Patent Claims require, *inter alia*, "a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto." ((D.I. 1-1 at 6:55-10:37 (claims of the '468 Patent); 1-2 at 8:3-10:13 (claims of the '078 Patent).)) This is not an abstract idea, but a specific database as implemented in a computer. In fact, the USPTO described this limitation as *specific structure* when denying

reexamination of the '468 Patent. (“*the specific structure* of a client reminder with a date field.” (Ex. A at 11-12))

The WhitServe Patent Claims also require specific software. The claims require “software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder.” ((D.I. 1-1 at 6:55-10:37 (claims of the '468 Patent); 1-2 at 8:3-10:13 (claims of the '078 Patent).)) This limitation required the execution of a specific function to retrieve a specific item (client reminder). That this particular software has something more than just an abstract meaning is evidenced by the fact that the specific limitation of “[by] the values attributed to each client reminder date field” was added to the claims to overcome prior art rejections. (Ex. H.) This narrowing is further evidence than the Patents in question are evidence of differentiation and improvement on the prior art in the field of docket management.

Claim 1 of the '468 Patent also requires “software executing on said computer for automatically generating a client response form based on the retrieved client reminder.” (D.I. 1-1 at 6:55-7-9.) Generating a form based on a client reminder and transmitting that form through the Internet is not an abstract idea, but calls for the creation of a specific item from specific precursors using a specifically programmed computer. The client response form which is generated is particularized and has specific structural limitations as is evidenced by the parties’ proposed constructions of the term in GoDaddy. (GoDaddy D.I. 221-1 at 10 and D.I. 261 at 29.)

The subject-matter claimed in the WhitServe Patents requires a specifically defined database, specific software from which to generate forms, and transmission over the Internet. The claims of the WhitServe Patents require “a communication link between said computer and the Internet,” which simply cannot be an abstraction. The claims of the '468 patent also require

specific software executing to automatically receive a reply to the specific response form from the client. Finally, dependent claim 3 of the '708 Patent further requires the produced form to be in the form of a web page, adding even more specific non-abstract structure to the claims.

Defendants' inability to coherently express an "abstract idea" confirms that the asserted patents are not abstract. Even if Defendants were able to identify an abstract idea within the claims, the claims themselves have to be "directed to" that abstract idea. Defendants make no attempt at analyzing the significance of the "directed to" statement; simply concluding "There is no genuine dispute that the asserted claims are directed to an abstract idea that is implemented on a computer". (D.I. 13 at 17.)

Defendants again gloss over and oversimplify their required proofs, which are to be made by clear and convincing evidence. Following *Alice*, USPTO issued its Interim Guidance on Patent Subject Matter Eligibility, in which it clarified the term of art "directed to." 2014 Interim Guidance on Patent Subject Matter Eligibility, 79 Fed. Reg. 74618-33 (Dec. 16, 2014). The Interim Guidance states: "[a] claim is ***directed to*** a judicial exception when . . . ***an abstract idea is recited (i.e., set forth or described)*** in the claim." *Id.* at 74622 (emphasis added). The USPTO noted that "[a]n invention is not rendered ineligible for patent simply because it involves an abstract concept" and that "[i]t is important to understand what the applicant has invented." Therefore, it is the steps and structures recited in the claims that govern the *Alice* analysis, not a Defendants' characterization of them nor any statement of the intended purpose of the claim structures or steps.

In *Enfish*, the Federal Circuit considered claims "directed to a self-referential table for a computer database" and found that the claims were not directed to an abstract idea, stating: "In this case ... the plain focus of the claims is on an improvement to computer functionality itself,

not on economic or other tasks for which a computer is used in its ordinary capacity.” *Enfish* at 1336.

The present case is unlike any of the cases cited by Defendants. WhitServe’s asserted claims are directed to a specific implementation of a solution to a problem in the field of docketing systems -- namely, combining several specific elements to reduce docketing and communication processing time and eliminate mistakes that were common to the field at the time of the invention.

In *Yodlee, Inc. v. Plaid Techs. Inc.*, the Court considered five sets of claims and resolved the § 101 issue at the first step for two sets. *Yodlee, Inc. v. Plaid Techs. Inc.*, No. 14-1445-LPS, 2016 WL 2982503, at *13 (D. Del. May 23, 2016), *report and recommendation adopted*, 2017 WL 385039 (D. Del. Jan. 27, 2017). Regarding the first set, while the court agreed that “retrieving and storing personal information from multiple sources” was an abstract idea, the court did not agree that the claims were “directed to” that idea because “the ‘idea’ identified by [the defendant] sweeps too broadly, and does not incorporate the key concept in the claim that the patentee calls out as the rationale for the invention.” *Id.* at *13. Accordingly, the court held: “Because [the defendant’s] asserted abstract idea does not capture an important aspect of what the claim is directed to, the Court finds that [the defendant] has not carried its burden at step one.” *Id.* at *14. Here similarly, Defendants cannot articulate a consistent abstract idea for an *Alice* analysis. Defendants pick and choose select portions of claim limitations in an attempt to shoehorn their argument, and do not capture the most important aspects of the claims, the specific limitations.

Regarding the second set of claims in *Yodlee*, the court agreed (and it was not disputed) that “businesses have used past transaction information to predict future transactions or for

business purposes long before the [] patents existed.” *Yodlee*, 2016 WL 2982503 at *28.

However, the court concluded that the abstract idea did not encompass the “basic character” of the claimed inventions:

What the [] patents claim to add is not simply the idea of summarizing past transaction information for some future predictive purpose or for a business purpose (as [defendant's] proffered abstract ideas suggest), but rather the added value of having a categorization system that grows and improves in its ability to do its job.

Id. The court further noted that the character of the claims omitted by the defendant was supported in not only the specification but also the claims themselves. *Id.* at *28-29. Here, Defendants make the same fatal mistakes, omitting a basic character of each asserted claim – the specific structure required by the claim.

Defendants further wrongfully claim that Plaintiff “seek to encompass any computer systems that “automatically” deliver professional services.” (D.I. 13 at 10.) This is another oversimplification of the patent and of the related processes. Prior art cited by both the Examiners and the Applicant during prosecution of the Patents disclosed several automated methods of communicating different information between work groups and clients, using various electronic systems. (*See* Exs. E (U.S. Pat. 4,807,154) and F (U.S. Pat. No. 5,548,506).) Defendants’ brief fails to mention the Federal Circuit’s decision in *DDR Holdings*. The patent in *DDR Holdings* was upheld because it did not broadly and generically claim “use of the Internet” to perform an abstract business practice. *DDR Holdings*, 773 F.3d at 1258. Nor did it “attempt to preempt every application of the idea of increasing sales by making two web pages look the same... .” *Id.* at 1259. Rather, it “recite[d] a specific way to automate the creating of a composite web page by an ‘outsource provider’ that incorporates elements from multiple sources in order to solve a problem faced by websites on the Internet.” *Id.* As in *DDR Holdings*, the

WhitServe Patents are not an attempt to broadly and generically claim use of a computer or a computer network to provide professional services. Competitors are not preempted and need not practice the claimed invention in order to remind customers and colleagues of deadlines over the Internet. That competitors choose to do so is not a reason for invalidating the WhitServe Patents. This fact already been recognized by the Districts of Connecticut, the Federal Circuit, the USPTO, and over twenty licensees of the WhitServe Patents.

For at least these reasons, the WhitServe Patents' claims are not directed to an abstract idea and recites subject matter as a patentable process under § 101. Although WhitServe Patents' claims are not directed to ineligible subject matter, and step two of the *Alice* framework does not need to be discussed, what follows is a discussion of step two for purposes of brevity.

2. Step Two Alice: Claims Also Add More, And Contain An Inventive Concept

The claims in question also contain an inventive concept adding to the nature of the claim into a patent-eligible application.

If the Court proceeds to step two, Courts “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent eligible application.” *Alice*, 134 S.Ct. at 2355. The second step of the *Alice* test is satisfied when the claim limitations “involve more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.” *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014).

Defendants wrongfully generalize that “none of the steps add anything “significantly more” than the abstract idea but instead merely describe “well-understood, routine, conventional activities” performed by generic computer components. (D.I. 13 at 16). Defendants provide no evidence or analysis to their statements.

Plaintiff's arguments are supported by the prior reviews of the patents for § 101 eligibility. The claimed combination improves inter-office communications and information sharing through configuration of databases and specific software, resulting in the elimination of redundancies and costs in the fields of docketing system and intellectual property management. The claims in question, at the time of the invention, improved on the state of the art communication, docketing, and data transfer systems, by teaching the databases, specific reminders and software capable of reading said reminders and merging them with messages to be transmitted. The specification describes an at the time of invention (1996) a state of the art docketing system as "typically containing a database of deadlines...as notifying the professional of each upcoming deadline a preset time period before the deadline by printout, attached terminal, or networked computer." (D.I. 1-1 at 1:31-34.) The prior systems required the professionals "contact the client initially and send multiple reminders if necessary, wait for the client to make a decision and respond with an authorization, compose a letter or perform some other action based on the client's response, send a confirmation of the action taken to the client, and manually update the docketing system or instruct someone else to do the same," (D.I. 1-1, at 1:40-46) and by employing the present invention the professional may "transfer in seconds a clean, original document so that the client may simply print the document, execute it, and mail it back to the professional, thereby halving the time required to obtain signed originals," (D.I. 1-1, at 2:1-5), thereby removing time-intensive and expensive steps from the communication processes.

Moreover, the limitations of the dependent claims add further inventive concepts that preclude a finding of patent ineligibility. A § 101 analysis requires the court to look at "*each* claim both individually and as an ordered combination." *See Alice*, 134 S. Ct. at

2355.**Error! Bookmark not defined.** Therefore, independent claims of the patents (the broadest in scope), are not “representative” of all dependent claims due to dependent claims’ distinct additional claim limitations. For example, claim 3 of the ’078 Patent requires the “generat[ed]” and “transmit[ed]” form to be “a web page.” (Dkt. 1-2 at 8:5-25.) Having the form be presented as web page allows for better compatibility between clients and law firms instead of having to download costly software in order to view and sign documents. This improved compatibility allows for faster and simpler communication with clients around the world. Such additional elements and limitations of all challenged dependent claims both belie the Defendants’ abstraction of argument and add inventive concepts. Yet, Defendants, without analyzing the time of invention (1996), merely conclude “a web page is a common and well-known feature in computer technology” and do not discuss the impact of the of these limitation on § 101 analysis.

In their step two analysis, Defendants simply cite four cases where a court ruled in favor of invalidity on a step two analysis. Defendants do not attempt to draw parallels between the invalidated claims of those patents and the present claim limitations. Defendants selectively truncate the component requirements to “a computer, a database, software, a communication link between said computer and the internet” (D.I. 13 at 15.) The combination and detailed limitations of these components however add significantly more structure than what is mentioned by the Defendants. The database for instance requires “containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto.” Defendants do not discuss the details of these structures, as well as the detailed structures of the dependent claims, such as the form being a web page, and if that aspect or any aspect of the claim would have been well-understood, routine, and conventional to a skilled artisan at the time of the WhitServe Patents. “Whether something is well-understood, routine, and conventional to

a skilled artisan at the time of the patent is a factual determination. Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art. The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.” *Berkheimer*, 881 F.3d at 1369. To understand whether each of the limitations recited in the independent and dependent claims “may require weighing evidence to determine whether the additional limitations beyond the abstract idea, natural phenomenon, or law of nature would have been well-understood, routine, and conventional to an ordinarily skilled artisan. Because the patent challenger bears the burden of demonstrating that the claims lack patent eligibility, 35 U.S.C. § 282(a), there must be evidence supporting a finding that the additional elements were well-understood, routine, and conventional.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1356 (Fed. Cir. 2018). No such evidence has been produced.

In *Aatrix* the Court of Appeals ruled that a “data file” could have constituted “an inventive concept, alone or in combination with other elements, sufficient to survive an Alice/Mayo analysis at the Rule 12(b)(6) stage.” *Id.* at 1358. The “data file” is not a critically complex claim limitation, simply requiring “a data file containing data from a user application for populating the viewable form” (Ex. G at 20:4-5) The WhitServe claims require a specific database containing specific types of data (plurality of client reminders) and a specific format (comprising a date field having an attributed value). (D.I. 1-1 at 6:55-10:37 (claims of the ’468 Patent); 1-2 at 8:3-10:13 (claims of the ’078 Patent).) This value allows the database and software to transmit material client information merged with the forms/notice to the client computer or client database. (D.I. 1-1 at 5:15-30.) The merged form can describe the client’s options regarding the professional services to be performed, for example choices for alternative

professional services or simply whether the client authorizes a professional service. (D.I. 1-1 at 5:30-55.)

The Court in *Berkheimer* ruled “there is at least a genuine issue of material fact in light of the specification regarding whether claims 4-7 archive documents in an inventive manner that improves these aspects of the disclosed archival system,” when speaking about the limitation of claim 4 requiring “storing a reconciled object structure in the archive without substantial redundancy.” *Berkheimer*, 881 F.3d at 1370. The Court stating that it is a genuine issue of material fact whether requirements that substantially reduce efforts needed to update files because a single edit can update every document in the archive and redundancies in the archive require multiple iterations of the same action was well-understood, routine, and conventional at the time of the Patent. With respect to the WhitServe Patents, the Defendants have not shown that all of the limitations required by the independent and dependent claims were well understood, or routine at the time of the inventions. Defendants again simply truncate the recited limitations of claim 1 to “a computer,” “a database,” “software” and “a communication link between the computer and the Internet” (D.I. 13 at 15) in an attempt to show that “significantly more” was not added. Defendants ignore the recited limitations on each of the databases, softwares, forms, and reminders and the state of the art of each one at the time the time of the patent. Without discovering the state of the art of each of the limitations or the combination of limitations in light of the specification at the time of the inventions, Defendants’ statements are nothing but conclusory.

Further, the Federal Circuit in *Bascom* recognized that although “the limitations of the claims, taken individually, recite generic computer, network and Internet components,” the *Bascom* patent’s “particular arrangement of elements is a technical improvement over prior art

ways of filtering such content.” *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349-50 (Fed. Cir. 2016). The *Bascom* case is the best example of how a computer-implemented invention can bring inventiveness to an abstract concept. The challenged patent in *Bascom* dealt with filtering content on the Internet, which was held to be directed to an abstract idea. However, the *Bascom* patent dealt with the problem in a novel and unconventional way: “The inventive concept described and claimed in the ’606 patent is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user.” *Id.* “[A]lthough the invention in the ’606 patent is engineered in the context of filtering content, the invention is not claiming the idea of filtering content simply applied to the Internet. The ’606 patent is instead claiming a technology-based solution (not an abstract-idea-based solution implemented with generic technical components in a conventional way) to filter content on the Internet that overcomes existing problems with other Internet filtering systems.” *Id.* at 1352. Therefore, even if the WhitServe Patents’ claims are found to be directed to an abstract idea, the Court should recognize that the WhitServe Patents embody an inventive concept.

For the foregoing reasons, Defendants have not met their burden in demonstrating the invalidity of each claim based on step two of the *Alice* analysis.

IV. Conclusion

For the foregoing reasons discussed above, Defendants’ motions to dismiss the Complaint under 35 U.S.C. § 101 should be denied in its entirety.

Dated: June 20, 2018

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EXHIBIT A

Application Number Information

Application Number: 90/012454 Assignments	Examiner Number: 76055 / HOTALING, JOHN
Filing or 371(c) Date: 08/26/2012 eDan	Group Art Unit: 3992 IFW Madras
Effective Date: 08/26/2012	Class/Subclass: 705/026.100
Application Received: 08/26/2012	Lost Case: NO
Patent Number:	Interference Number:
Issue Date: 00/00/0000	Unmatched Petition: NO
Date of Abandonment: 00/00/0000	I&R Cycle : Secrecy Code: 1
Attorney Docket Number: TB-WHIT-1	Third Level Review: NO
Status: 420 / REEXAM TERMINATED -- REQUEST DENIED IN GROUP	Secrecy Order: NO
Confirmation Number: 4445	Status Date: 01/30/2013
Title of Invention: SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES	Oral Hearing: NO

Bar Code	PALM Location	Location Date	Charge to Loc	Charge to Name	Employee Name	Location
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Appln Info Contents Petition Info Atty/Agent Info Continuity Data Foreign Data Inventors Address Fees Post Info Pre Grant Pub

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Proceeding Concluded

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Date	Status	Code	Description
01/30/2013	420	RTRM	RX - TERMINATION OF REEXAM PROCEEDINGS
11/19/2012	416	MREXD	RX - MAIL EX PARTE REQUEST FOR REEXAMINATION DENIED
11/15/2012		OAR	OFFICE ACTION REVIEW
11/14/2012		REXD	RX - EX PARTE REEXAM ORDER - DENIED
09/21/2012		MREXN	RX - MAIL EXAMINER INTERVIEW SUMMARY RECORD
09/21/2012		REXN	RX - EXAMINER INTERVIEW SUMMARY RECORD
10/16/2012		NRX	NOTICE OF REEXAM PUBLISHED IN OFFICIAL GAZETTE
09/20/2012	412	DOCK	CASE DOCKETED TO EXAMINER IN GAU
09/15/2012		RXLITSR	REEXAM LITIGATION SEARCH CONDUCTED
09/15/2012		RXRLF	REEXAM LITIGATION FOUND
09/11/2012	410	RXPCOM	COMPLETION OF PREPROCESSING - RELEASED TO ASSIGNED GAU
09/11/2012		RXNREQUA	NOTICE OF ASSIGNMENT OF REEXAMINATION REQUEST
09/11/2012		RXNREQFD	NOTICE OF REEXAMINATION REQUEST FILING DATE
09/10/2012		RXTTLRPT	TITLE REPORT
08/26/2012		RXIDS	INFORMATION DISCLOSURE STATEMENT FILED
08/26/2012		RXC/SR	CERTIFICATE OF SERVICE
08/26/2012		RXOSUB.R	REEXAMINATION REQUESTED BY THIRD PARTY REQUESTER
09/12/2012	410	RXPCOM	COMPLETION OF PREPROCESSING - RELEASED TO ASSIGNED GAU
09/12/2012		MRXN	REEXAMINATION FORMALITIES NOTICE MAILED
09/12/2012		MRXN	REEXAMINATION FORMALITIES NOTICE MAILED
09/12/2012	18	ROIPE	APPLICATION RETURN TO OIPE
08/26/2012	406	RXOSUB	RECEIPT OF ORIGINAL EX PARTE REEXAM REQUEST

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/012,454	08/26/2012	5,895,468	TB-WHIT-1	4445
<div>7590 11/19/2012 ST ONGE STEWARD JOHNSTON & REENS 986 BEDFORD ST STAMFORD, CT 06905-5619</div>			<div>EXAMINER HOTALING, JOHN M</div>	
			<div>ART UNIT 3992</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 11/19/2012</div>	<div>DELIVERY MODE PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/012,454.

PATENT NO. 5,895,468.

ART UNIT 3992.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Order Granting / Denying Request For Ex Parte Reexamination	Control No. 90/012,454	Patent Under Reexamination 5,895,468
	Examiner JOHN HOTALING	Art Unit 3992

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for *ex parte* reexamination filed 26 August 2012 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a) ☐ PTO-892, b) ☒ PTO/SB/08, c) ☐ Other: _____

1. ☐ The request for *ex parte* reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

For Requester's Reply (optional): TWO MONTHS from the **date of service** of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

2. ☒ The request for *ex parte* reexamination is DENIED.

This decision is not appealable (35 U.S.C. 303(c)). Requester may seek review by petition to the Commissioner under 37 CFR 1.181 within ONE MONTH from the mailing date of this communication (37 CFR 1.515(c)). **EXTENSION OF TIME TO FILE SUCH A PETITION UNDER 37 CFR 1.181 ARE AVAILABLE ONLY BY PETITION TO SUSPEND OR WAIVE THE REGULATIONS UNDER 37 CFR 1.183.**

In due course, a refund under 37 CFR 1.26 (c) will be made to requester:

a) ☒ by Treasury check or,

b) ☐ by credit to Deposit Account No. _____, or

c) ☐ by credit to a credit card account, unless otherwise notified (35 U.S.C. 303(c)).

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cc:Requester (if third party requester)

U.S. Patent and Trademark Office
PTOL-471 (Rev. 08-06)

Office Action in *Ex Parte* Reexamination

Part of Paper No. 20121108

Application/Control Number: 90/012,454
Art Unit: 3992

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ORDER DENYING EX PARTE REEXAMINATION

1. No substantial new question of patentability affecting claims 1-27 of United States Patent Number 5,895,468 (issued to Whitmyer, Jr.) is raised by the request for *ex parte* reexamination.

References Asserted by Requester as Raising Substantial New Question of Patentability

- Iwai et al, U.S. Patent No. 5,175,681 issued 12/9/1992
- ITT, EP Patent No. EP0472786 issued 4/3/92
- InPromo Intellectual Property Management System, Product Overview, Maxim Technology Pty Limited, Sydney NSW 2000 Australia, April 1995
- D.E.A.L.S. Db Daily Evaluation and Licensing Support Database, User's Guide, October 1992 Washington Research Foundation, Seattle, Washington.

Summary of Prosecution History

2. Claims 1-27 are being requested for reexamination are current claims in the '468 Patent that issued April 20, 1999 from application No. 08/726,999 filed October 7, 1996.

On March 03, 1998, the examiner rejected originally filed claims 1-4, 9-17 and 24-27 under 35 U.S.C. § 103 as unpatentable over either Linstead (U.S. Patent 5,548,753) in view of Meske, Jr. et al. (U.S. Patent 5,530,852) and b. Claims 5-8 and 18-23 were rejected under 35 U.S.C. § 103(a) as unpatentable over Linstead in view of Meske and further in view of Tondevoid et al. (U.S. Patent 5,410,646).

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In response to this first Office Action, the applicant did not amend any of the claims. Specifically, in response to the first rejection (35 U.S.C. § 103 Linstead in view of Meske) applicant tried to argue that the Linstead system monitors a database for a specific event but does not automate the event itself.

A second Office Action was issued on 18 August 1998 and made final. Claims 1-4, 9-17 and 24-27 were again rejected under 35 U.S.C. § 103 as unpatentable over Linstead in view of Meske. The Examiner responded to applicants prior arguments by indicating that the then pending claims were much broader than applicants arguments.

In response to the Second Office Action, applicant filed a file wrapper continuing application. Applicant amended independent claims 1, 5, 9 and 24 to add a limitation to the database that each client reminder has a date field and a value, and a corresponding limitation to the software element that the database querying is done by values attributed to each client reminder date field. The applicant stated that this amendment was done "to highlight the novel aspects of his invention."

In the advisory action of 9/25/1998 the examiner stated that the amendments raised new issues that would require further consideration and/or search. Specifically that a client reminder as claimed no comprises a data field having a value attributed thereto.

The Notice of Allowance after a request for continued prosecution was issued on 16 December 1998. The Examiner's statement of reasons for allowance reproduced below states that "The prior art of record does not teach or fairly suggest the generation and transmission of a

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form over the Internet subsequent to the automatic retrieval of the reminder as claimed. In other words, the prior art of record does not teach or fairly suggest the "client reminder comprising a date field", the step of "generating a client response.." and the step of "establishing a communication link between (said) computer and the Internet" as recited in the amended claim 24 and in all other amended independent claims 1, 5, and 9."

1. The following is an Examiner's Statement of Reasons for Allowance:

The invention as claimed is directed to a computerized system for automatically delivering of professional services, preferably over the World Wide Web or Internet. In the claimed invention, a server stores a plurality of reminders for a plurality of clients, and sends one of said reminders to a proper client when a particular condition is met and the time is appropriate. The claimed system automatically (without requiring any manual human intervention, see the Applicant's remarks, Paper No. 5, page 5, paragraph one) retrieves the reminders by verifying the date fields of the reminders, and subsequent to the retrieval of a reminder, generates a form that is transmitted to the client via the Internet. The client responds to the sent reminder by using the form. The prior art of record does not teach or fairly suggest the generation and transmission of a form over the Internet subsequent to the automatic retrieval of the reminder as claimed. In other words, the prior art of record does not teach or fairly suggest the "client reminder comprising a date field", the step of "generating a client response.." and the step of "establishing a communication link between (said) computer and the Internet" as recited in the amended claim 24 and in all other amended independent claims 1, 5, and 9.

This above reason for allowance is for a system or method using the steps of the "client reminder comprising a date field", the step of "generating a client response.." and the step of "establishing a communication link between (said) computer and the Internet" and generation and transmission of a form over the internet.

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3. Proposed Substantial New Questions of Patentability

Requester asserts a substantial new question of patentability involving claims 1-27 as being anticipated by a plurality of prior art references in various combinations.

The Requestor states that there are 8 substantial new questions of patentability raised by this reexamination request. Specifically:

1. Claims 1-27 of the '468 Patent are anticipated under 35 U.S.C. § 102(b) in view of ITT European Patent application EPA472786 ("ITT").

2. Claims 1-27 of the '468 Patent are unpatentable under 35 U.S.C. § 103 in view of ITT European Patent application EPA472786 ("ITT").

3. Claims 1-27 of the '468 Patent are unpatentable under 35 U.S.C. § 103 in view of Iwai et al. U.S. Patent 5,175,681 ("Iwai et al.").

4. Claims 1-27 of the '468 Patent are unpatentable under 35 U.S.C. § 103 in view of Iwai et al. U.S. Patent 5,175,681 ("Iwai et al.") in view of DEALS software User's Guide ("DEALS").

5. Claims 1-27 of the '468 Patent are unpatentable under 35 U.S.C. § 103 in view of Iwai et al. U.S. Patent 5,175,681 ("Iwai et al.") in view of InPromo software Product Overview ("InPromo").

6. Claims 1-27 of the '468 Patent are unpatentable under 35 U.S.C. § 103 in view of ITT European Patent application EPA472786 ("ITT") in view of Iwai et al. U.S. Patent 5,175,681 ("Iwai et al.").

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7. Claims 1-27 of the '468 Patent are unpatentable under 35 U.S.C. § 103 in view of ITT European Patent application EPA472786 ("ITT") in view of DEALS software User's Guide ("DEALS").

8. Claims 1-27 of the '468 Patent are unpatentable under 35 U.S.C. § 103 in view of ITT European Patent application EPA472786 ("ITT") in view of InPromo software Product Overview ("InPromo").

4. DISCUSSION OF THE REFERENCES USED IN THE SNQ

ITT REFERENCE

The ITT reference must have at least the four steps outlined above in the reasons for allowance as presented in the device or method claims '468 patent. In the request the claim comparison charts for the allowable subject matter in question are outlined in table 1 below.

Please note that it appears that the requestor in the charts on page 27 of the reference has the analysis in the wrong position and as such the examiner response is corrected as applied below.

Table 1

<u>Claim limitation</u>	Requestor explanation	Examiners statement
<u>A database containing a plurality of client reminders each of the client</u>	ITT states: "The Work Source Index (equivalent to the Policy Index) generically provides an accessible database of work source information. In a law office, the Work Source Index (WSI) is maintained as	Even though the WSI provides a database of WSI the reference does not disclose a client reminder with a date field. This is a specific

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<u>reminders</u> <u>comprising a date</u> <u>field</u> having a value attributed thereto,	a client database." (page 65 line 70). Therefore, the ITT database is equivalent to this claim element, which is the allegedly novel claim element.	structure that must be in the reference in order to be considered under 102. Additionally there must be some teaching in order to have one reasonably interpret this claim limitation as being taught by the reference under 103.
the step of automatically <u>generating a client</u> <u>response form</u> <u>based on the</u> <u>retrieved client</u> <u>reminder;</u>	ITT states: "It includes system controlled extraction of applicable information from local databases to prefill blank fields, automatic Activity Log recording and paper type and copy management. In a law office Text processing is used to automatically generate forms for legal filings (e.g. declarations, powers of attorney, etc.), letters (reporting letters and the like) and billing statements." (page 66 line 10). As this is not a claim limitation, the ITT disclosure also provides "software executing on said computer for	ITT does disclose that the system can automatically generate forms using a database of information and automatically generate forms. However, there is no teaching or suggestion of doing so based on a client reminder

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	<p>automatically generating a client response form based on the retrieved client reminder."</p>	
<p>the step of "establishing a communication link between (said) computer and the Internet"</p>	<p>ITT states: "In practice, the Host computer 62 communicates with the local computer 78 through its modem 66, the phone lines 64 and the local modem 60." (page 8 line 40).</p>	<p>This teaching and figure 5 of the reference disclose the use of a network.</p>
<p>and generation and transmission of a form over the internet.</p>	<p>In ITT, the Mailbox function generically provides a facility for referring work tasks and receiving alert messages, In a law office cases are assigned with notification placed in attorney mailboxes. (page 66 line 10). As this is not a claim limitation, the ITT disclosure also provides "software executing on said computer for automatically transmitting the client response form to the client through said communication link."</p>	<p>The ITT reference states that work related tasks can be placed in attorneys mailboxes. However there is no clear teaching in the reference that a client reminder with a date field generates a form based on the client reminder and transmits the form to the client over the communications medium.</p>

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As can be seen above there is no clear teaching or suggestion in ITT that a client reminder with a date field generates a form based on the client reminder and transmits the form to the client over the communications medium as required by the independent claims.

Page 66 of the ITT reference discusses the generation of alert messages and the mailbox function reproduced below. These alert messages are only for supervisors as disclosed in the request and the reference. Additionally the mailbox function is a facility for referring work tasks and receiving alert messages. Nothing is mentioned relative to client reminders and there is no suggestion in the reference that would lead one of ordinary skill to the claimed invention.

The generation of Alert Messages generically provides for the routing of such messages automatically to appropriate staff members upon the breach of some predetermined criteria. In a law office, such messages are provided when too much time is spent on a case, when deadlines are missed, when system security locks out an attempted entry, when a deadline is assigned during a scheduled vacation, etc.

The Mailbox function generically provides a facility for referring work tasks and receiving alert messages. In a law office cases are assigned with notification placed in attorneys' mailboxes. The cases, and work generated thereon (e.g. a brief, a patent application, etc.), are also routed for review and revision to other attorneys.

The DEALS reference is cited for the algorithms and completed software that is described as equivalent databases in the user's Guide. The patent segments of the databases contain equivalent patent docket dates and a means to query such databases. There is an "Office Action File" on page 43 that provides docket due dates from the perspective of the client. Further, there is a "Law Firms File" that provides a database for the law firms who write the responses to Office Actions and tracks the law firm services. Reports can be generated (beginning on page 65) by querying the various equivalent (to the '468 Patent) databases.

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DEALS further discloses transmitting forms or letters to clients on pages 59-62. Specifically, the DEALS software allows for the user to generate forms or letters to clients and transmits those letters using a connected printer. The printed material is then faxed or mailed to the client, the preferred means of transmission in 1992 when DEALS was published. DEALS allows the user to "[Merge] copies information from your selected records (those with the 'send letter' field marked YES) into your form letter (designated by field in the Edit Letter window)." (DEALS pages 59-60 and emphasis in original).

With respect to the office action file on page 43 that provides docket due dates from the perspective of the client. This is not a database of client reminders with comprising a date field.

With respect to the information of pages 59-62 these are not letters or forms generated by using a client reminder. These are forms or letters generated by an individual.

InPromo is cited for the algorithms provided for a "[t]he software manages professional matters undertaken by a Patent Attorney or Trademark Agent whether in private practice or as part of a corporation." (1 Overview). Unlike the description in the '468 patent, or lack thereof, InPromo provides actual functioning software and the printed publication document provided as prior art herein contains screen shots illustrating the functioning of implemented software. On page 3 near the top, InPromo states that its software "will generate all necessary forms, letters and debit note." Lastly, InPromo provides "This module will allow enquiry access to be made available to the InPromo user's clients and standards will be created to allow the exchange of case details between patent attorney firms to reduce the need for data entry." Therefore, InPromo provides a detailed and fully enabled patent law firm docket system, written description

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completely missing from the '468 Patent specification, showing that the inventor of the '468 Patent was not in possession of the claimed subject matter in the '468 Patent.

While InPromo may use dates upon which an event is calculated and any number of reminders may be generated to the employee or department dealing with the case at varying frequencies as well as letters forms etc. being produced at varying lead times before or even after a due date there is no discussion of client reminders comprising a date field. Additionally there is no motivation provided in the reference to have a client reminder.

IWAI REFERENCE

The Iwai reference must have at least the four steps outlined above in the reasons for allowance as presented in the device or method claims '468 patent. In the request the claim comparison charts for the allowable subject matter in question are outlined in table 2 below.

Table 2

<u>Claim limitation</u>	<u>Requestor explanation</u>	<u>Examiners statement</u>
<u>A database containing a plurality of client reminders each of the client reminders comprising a date</u>	Iwani et al. provides "a computer including a central processing unit (CPU) 1. CPU 1 is associated with various memories, each of which constitutes a data file, and a peripheral equipment, such as a keyboard 2, a display unit 3, a printer 4 and so forth." (col. 8 lines 27-33). The various	The examiner notes that the Iwai reference while disclosing a database and a computer associated with this database does not disclose the specific structure of a client reminder with a date field. In

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<p><u>field</u> having a value attributed thereto,</p>	<p>data files or databases (called "memory means" in Iwani et al.) provide this key allegedly novel claim element because the due dates for a patent docket are contained within the Iwani et al. memory means. Iwani et al. has multiple databases (see Figure 1) including a rule data file (20), a rule table (202), a time-control data file (204) and a data base file (30).</p>	<p>fact the only place in the patent that discusses reminders is in column 1 lines 21-23 "for controlling terms including reminders to persons in charge of specific applications of the due date and so forth."</p>
<p>the step of automatically <u>generating a client response form based on the retrieved client reminder;</u></p>	<p>Iwani et al. provides "a computer including a central processing unit (CPU) 1. CPU 1 is associated with various memories, each of which constitutes a data file, and a peripheral equipment, such as a keyboard 2, a display unit 3, a printer 4 and so forth." (col. 8 lines 27-33). The printer is the communications link and 1985 equivalent to the Internet. The computer has standard word processing software.</p>	<p>ITT does disclose that the system can automatically generate forms using a database of information and automatically generate forms. However, there is no teaching or suggestion of doing so based on a client reminder</p>
<p>the step of <u>"establishing a communication</u></p>	<p>Iwani et al. provides "a computer including a central processing unit (CPU) 1. CPU 1 is associated with various memories, each</p>	<p>This is not establishing a link between the computer and the internet. Even assuming that</p>

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<u>link between (said) computer and the Internet</u>	of which constitutes a data file, and a peripheral equipment, such as a keyboard 2, a display unit 3, a printer 4 and so forth." (col. 8 lines 27-33). The printer is the communications link and 1985 equivalent to the Internet.	the Iwai reference could be modernized to connect to the internet there is no client reminder disclosed in the reference.
and <u>generation and transmission of a form over the internet.</u>	Iwani et al. provides a printer connected to a computer for printing letters to clients that can be transmitted to clients in 1985 through means such a fax (telephone lines), mail, pony express, bicycle messenger, FedEx and the like.	This is not generating and transmitting of a form over the internet using a client reminder with a date field.

Page 66 of the ITT reference discusses the generation of alert messages and the mailbox function reproduced below. These alert messages are only for supervisors as disclosed in the request and the reference. Additionally the mailbox function is a facility for referring work tasks and receiving alert messages. Nothing is mentioned relative to client reminders and there is no suggestion in the reference that would lead one of ordinary skill to the claimed invention.

The generation of Alert Messages generically provides for the routing of such messages automatically to appropriate staff members upon the breach of some predetermined criteria. In a law office, such messages are provided when too much time is spent on a case, when deadlines are missed, when system security locks out an attempted entry, when a deadline is assigned during a scheduled vacation, etc.

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The Mailbox function generically provides a facility for referring work tasks and receiving alert messages. In a law office cases are assigned with notification placed in attorneys' mailboxes. The cases, and work generated thereon (e.g. a brief, a patent application, etc.), are also routed for review and revision to other attorneys.

The DEALS reference is cited for the algorithms and completed software that is described as equivalent databases in the user's Guide. The patent segments of the databases contain equivalent patent docket dates and a means to query such databases. There is an "Office Action File" on page 43 that provides docket due dates from the perspective of the client. Further, there is a "Law Firms File" that provides a database for the law firms who write the responses to Office Actions and tracks the law firm services. Reports can be generated (beginning on page 65) by querying the various equivalent (to the '468 Patent) databases.

DEALS further discloses transmitting forms or letters to clients on pages 59-62. Specifically, the DEALS software allows for the user to generate forms or letters to clients and transmits those letters using a connected printer. The printed material is then faxed or mailed to the client, the preferred means of transmission in 1992 when DEALS was published. DEALS allows the user to "[Merge] copies information from your selected records (those with the 'send letter' field marked YES) into your form letter (designated by field in the Edit Letter window)." (DEALS pages 59-60 and emphasis in original).

With respect to the office action file on page 43 that provides docket due dates from the perspective of the client. This is not a database of client reminders with comprising a date field.

With respect to the information of pages 59-62 these are not letters or forms generated by using a client reminder. These are forms or letters generated by an individual.

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InPromo is cited for the algorithms provided for a "[t]he software manages professional matters undertaken by a Patent Attorney or Trademark Agent whether in private practice or as part of a corporation." (1 Overview). Unlike the description in the '468 patent, or lack thereof, InPromo provides actual functioning software and the printed publication document provided as prior art herein contains screen shots illustrating the functioning of implemented software. On page 3 near the top, InPromo states that its software "will generate all necessary forms, letters and debit note." Lastly, InPromo provides "This module will allow enquiry access to be made available to the InPromo user's clients and standards will be created to allow the exchange of case details between patent attorney firms to reduce the need for data entry." Therefore, InPromo provides a detailed and fully enabled patent law firm docket system, written description completely missing from the '468 Patent specification, showing that the inventor of the '468 Patent was not in possession of the claimed subject matter in the '468 Patent.

While InPromo may use dates upon which an event is calculated and any number of reminders may be generated to the employee or department dealing with the case at varying frequencies as well as letters forms etc. being produced at varying lead times before or even after a due date there is no discussion of client reminders comprising a date field. Additionally there is no motivation provided in the reference to have a client reminder.

5. ANALYSIS OF THE PROPOSED SNQ'S

With respect to the proposed SNQ rejections 1, 2, 6, 7, and 8 outlined above in section 3 it can be seen that the reference to ITT EP0472786 does not meet the SNQ standard as discussed

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above in section 4. ITT fails to disclose a device or a method using the steps of the "client reminder comprising a date field", the step of "generating a client response.." and the step of "establishing a communication link between (said) computer and the Internet" and generation and transmission of a form over the internet. As discussed above in section 4. The DEALS user guide, InPromo and Iwai do not make up the deficiencies of the ITT reference.

For at least these reasons, the request does not raise a substantial new question of patentability with respect to ITT either alone or in combination with other references.

With respect to the proposed SNQ rejections 3, 4, and 5 outlined above in section 3 it can be seen that the reference to US Patent 5,175,681 to IWAI does not meet the SNQ standard as discussed above in section 4. Iwai fails to disclose a device or a method using the steps of the "client reminder comprising a date field", the step of "generating a client response.." and the step of "establishing a communication link between (said) computer and the Internet" and generation and transmission of a form over the internet. As discussed above in section 4. The DEALS user guide and InPromo do not make up the deficiencies of the Iwai reference.

For at least these reasons, the request does not raise a substantial new question of patentability with respect to Iwai either alone or in combination with other references.

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Conclusion

Extensions of Time

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that ex parte reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in ex parte reexamination proceedings are provided for in 37 CFR 1.550(c).

Service of Papers

After the filing of a request for reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. See 37 CFR 1.550.

All correspondence relating to this *ex parte* reexamination proceeding should be directed:

By EFS: Registered users may submit via the electronic filing system EFS-web, at
<https://efs.uspto.gov/efile/myportal/efs-registered>

By mail to: Attn: Mail Stop "Ex Parte Reexam"
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

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By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314.

For EFS-Web transmissions, 37 CFR 1.8(a)(1)(i) (C) and (ii) states that correspondence (except for a request for reexamination and a corrected or replacement request for reexamination) will be considered timely filed if (a) it is transmitted via the Office's electronic filing system in accordance with 37 CFR 1.6(a)(4), and (b) includes a certificate of transmission for each piece of correspondence stating the date of transmission, which is prior to the expiration of the set period of time in the Office action.

Any inquiry concerning this communication or earlier communications from the examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

/John M Hotaling II /
Primary Examiner
Art Unit 3992

Conferees:

/C. S./

/Matthew L. Brooks/
Supervisory Patent Examiner, Art Unit 3992

EXHIBIT B



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LM41/1217
ST ONGE STEWARD JOHNSTON & REENS
986 BEDFORD ST
STAMFORD CT 06905-5619

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/726,999	10/07/96	027	ALAM, H	2771 12/17/98
First Named Applicant	WHITMYER, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION SYSTEM AUTOMATING DELIVERY OF PROFESSIONAL SERVICES

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	707-010.000	M84	UTILITY	YES	\$605.00	03/17/99

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay FEE DUE shown above, or

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

PTOL-85 (REV. 10-96) Approved for use through 06/30/99. (0651-0033)

Notice of Allowability

Application No.

08/726,999

Applicant(s)

Whitmyer, Jr.

Examiner

Hosain T. Alam

Group Art Unit

2771

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to the Request for Continued Prosecution Application filed September 30, 1998

☒ The allowed claim(s) is/are 1-27

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☒ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 3.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☐ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance

Thomas G. Black
THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 2700

Serial Number: 08/726,999
Art Unit: 2771

Page 2

1. The following is an Examiner's Statement of Reasons for Allowance:

The invention as claimed is directed to a computerized system for automatically delivering of professional services, preferably over the World Wide Web or Internet. In the claimed invention, a server stores a plurality of reminders for a plurality of clients, and sends one of said reminders to a proper client when a particular condition is met and the time is appropriate. The claimed system automatically (without requiring any manual human intervention; see the Applicant's remarks, Paper No. 5, page 5, paragraph one) retrieves the reminders by verifying the date fields of the reminders, and subsequent to the retrieval of a reminder, generates a form that is transmitted to the client via the Internet. The client responds to the sent reminder by using the form. The prior art of record does not teach or fairly suggest the generation and transmission of a form over the Internet subsequent to the automatic retrieval of the reminder as claimed. In other words, the prior art of record does not teach or fairly suggest the "client reminder comprising a date field", the step of "generating a client response.." and the step of "establishing a communication link between (said) computer and the Internet" as recited in the amended claim 24 and in all other amended independent claims 1, 5, and 9.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Serial Number: 08/726,999
Art Unit: 2771

Page 3

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosain Alam whose telephone number is (703) 308-6662.

ma
H.A.

December 16, 1998

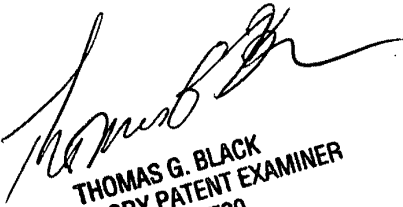

THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 2700

EXHIBIT C



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LM01/0823

WESLEY W WHITMYER JR
CT ONGE STEWARD JOHNSTON & REENS LLC
BEDFORD STREET
CT 06905-5619

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/453,712	09/23/99	011	ALAM, H	2771 08/23/00
First Named Applicant	WHITMYER, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION SYSTEM FOR DELIVERING PROFESSIONAL SERVICES OVER THE INTERNET

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPL. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	03000-P0001C	707-010.000	R06 UTILITY	YES	\$605.00	11/24/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

PTOL-85 (REV. 10-88) Approved for use through 06/30/99. (0651-0033)

Notice of Allowability

Application No. 09/453,728	Applicant(s) Whitmyer, Jr.
Examiner Hosain T. Alam	Group Art Unit 2771

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to the Terminal Disclaimer filed on 2/3/00

☒ The allowed claim(s) is/are 1-11

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☒ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 3.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 1

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

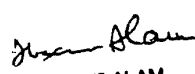
☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☐ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance


 HOSAIN T. ALAM
 PRIMARY EXAMINER

Serial Number: 09/453,728
Art Unit: 2771

Page 2

1. The following is an examiner's statement of reasons for allowance:

Claims 1-11 are pending in this application.

In a Terminal Disclaimer filed on February 3, 2000, Paper No. 2, the Applicant has disclaimed the terminal part of the term of any patent granted on this application which would extend beyond the expiration date of U. S. Patent No. 5,895,468 (the '468 reference) issued to the same applicant. The difference between the claims of the instant application and claim 24 of the '468 reference is that they omit the step of receiving a reply to the response form from a client (see column 10, line 25-26 of the U. S. Patent No. 5,895,468). It would have been obvious to a person of ordinary skill in the art to incorporate such a step because claim 24 of the '468 reference recites a step of transmitting a client response form to a client which implies that a response by the client is being sought by transmitting the form and a response thereto is expected. It would have been obvious to a person of ordinary skill to readily identify the necessity of the step of transmitting a client response form to a client.

The examiner also submits that an obvious type double patenting rejection issued over claim 24 of the '468 reference in this application would have been obviated by the filing of the Terminal Disclaimer stated hereinabove.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Serial Number: 09/453,728
Art Unit: 2771

Page 3

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosain Alam whose telephone number is (703) 308-6662.

Hosain Alam

Hosain T. Alam
Primary Examiner
Art Unit 2771

August 21, 2000

Form PTO 948 (Rev. 8-98)

U.S. DEPARTMENT OF COMMERCE - Patent and Trademark Office

Application No.

09/453,728NOTICE OF DRAFTSPERSON'S
PATENT DRAWING REVIEWThe drawing(s) filed (insert date) 12-2-99 are:

- A. ☐ approved by the Draftsperson under 37 CFR 1.84 or 1.152.
 B. ☒ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawing must be submitted according to the instructions on the back of this notice.

<p>1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color. Color drawings are not acceptable until petition is granted. Fig(s) _____ Pencil and non black ink not permitted. Fig(s) _____</p> <p>2. PHOTOGRAPHS. 37 CFR 1.84 (b) 1 full-tone set is required. Fig(s) _____ Photographs not properly mounted (must use bristol board or photographic double-weight paper). Fig(s) _____ Poor quality (half-tone). Fig(s) _____</p> <p>3. TYPE OF PAPER. 37 CFR 1.84(e) Paper not flexible, strong, white, and durable. Fig(s) _____ Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) _____ Mylar, velum paper, is not acceptable (too thin). Fig(s) _____</p> <p>4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) _____ Drawings sheets not an acceptable size. Fig(s) _____</p> <p>5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11 Margins not acceptable. Fig(s) <u>2</u> Top (T) _____ Left (L) _____ Right (R) _____ Bottom (B) _____</p> <p>6. VIEWS. 37 CFR 1.84(h) REMINDER: Specification may require revision to correspond to drawing changes. Partial views. 37 CFR 1.84(h)(2) Brackets needed to show figure as one entity. Fig(s) _____ Views not labeled separately or properly. Fig(s) _____ Enlarged view not labeled separately or properly. Fig(s) _____</p> <p>7. SECTIONAL VIEWS. 37 CFR 1.84 (h)(3) Hatching not indicated for sectional portions of an object. Fig(s) _____ Sectional designation should be noted with Arabic or Roman numbers. Fig(s) _____</p>	<p>8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i) Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____</p> <p>9. SCALE. 37 CFR 1.84(k) Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) _____</p> <p>10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l) Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality). Fig(s) _____</p> <p>11. SHADING. 37 CFR 1.84(m) Solid black areas pale. Fig(s) _____ Solid black shading not permitted. Fig(s) _____ Shade lines, pale, rough and blurred. Fig(s) _____</p> <p>12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p) Numbers and reference characters not plain and legible. Fig(s) _____ Figure legends are poor. Fig(s) _____ Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(4) Fig(s) _____ English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) _____ Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig(s) _____</p> <p>13. LEAD LINES. 37 CFR 1.84(q) Lead lines cross each other. Fig(s) _____ Lead lines missing. Fig(s) _____</p> <p>14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(i) Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Sheet(s) _____</p> <p>15. NUMBERING OF VIEWS. 37 CFR 1.84(u) Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____</p> <p>16. CORRECTIONS. 37 CFR 1.84(w) Corrections not made from prior PTO-948 dated _____</p> <p>17. DESIGN DRAWINGS. 37 CFR 1.152 Surface shading shown not appropriate. Fig(s) _____ Solid black shading not used for color contrast. Fig(s) _____</p>
<p>COMMENTS</p>	

REVIEWER

DATE

8-21-00

TELEPHONE NO.

ATTACHMENT TO PAPER NO.

3

Notice of References Cited				Application No. 09/453,728		Applicant(s) Whitmyer, Jr.	
				Examiner Hosain T. Alam		Group Art Unit 2771	
U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	
	A	6,049,801	4/2000	Whitmyer, Jr.	707	10	
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
	J						
	K						
	L						
	M						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
	N						
	O						
	P						
	Q						
	R						
	S						
	T						
NON-PATENT DOCUMENTS							
		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
	U						
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	W						
	X						

EXHIBIT D

No. _____

IN THE
Supreme Court of the United States

COMPUTER PACKAGES, INC.,

Petitioner,

v.

WHITSERVE, LLC, and
WESLEY W. WHITMYER, JR.,

Respondents.

On Petition for a Writ of Certiorari to the
United States Court of Appeals for the Federal Circuit

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

1. Whether 35 U.S.C. § 101, which defines the subject matter that is eligible for a patent, is a jurisdictional statute.
2. Whether a federal court must address whether a patent claims abstract ideas or mental steps, outside the scope of patentable subject matter defined by 35 U.S.C. § 101, whenever the issue comes to the court's attention.
3. Whether Respondents' U.S. Patent Nos. 5,895,468, 6,049,801 and 6,182,078, which patent looking up due dates and notifying clients of them, claim unpatentable abstract ideas or mental steps under 35 U.S.C. § 101.

RULE 29.6 STATEMENT

Pursuant to Supreme Court Rule 29.6, Petitioner states that it has no parent corporation, and no publicly held company owns 10% or more of Petitioner's stock.

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28 U.S.C. § 1338(a)	1
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35 U.S.C. § 102	passim
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Lemley, Risch, Sichelman, & Wagner, <i>Life After Bilski</i> , 63 Stan. L. Rev. 1315 (2011)	21
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PETITION FOR A WRIT OF CERTIORARI

Petitioner, Computer Packages, Inc. (“CPI” or “Petitioner”), respectfully seeks a writ of certiorari to the United States Court of Appeals for the Federal Circuit.

OPINIONS BELOW

The majority and dissenting opinions of the Federal Circuit are reported at 694 F.3d 10 and are reproduced in the Appendix (“App.”) at 1a, 53a. The Judgment of the United States District Court for the District of Connecticut, which is unreported, is reproduced in the Appendix at 59a.

JURISDICTION

The Federal Circuit entered its Judgment on August 7, 2012 and entered an Order denying CPI’s petition for rehearing *en banc* on October 10, 2012. This Court’s jurisdiction is invoked under 28 U.S.C. § 1254(1).

STATUTORY PROVISIONS INVOLVED

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101.

“The district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents” 28 U.S.C. § 1338(a).

“The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction of an appeal from a final decision of a district court . . . in any civil action arising under, or in any civil action in which a party has asserted a compulsory counterclaim arising under, any Act of Congress relating to patents” 28 U.S.C. § 1295(a)(1) (formatting omitted).

INTRODUCTION

Section 101 of Title 35, United States Code, defines the subject matter that Congress has deemed eligible for patent protection. In interpreting the statute, the Supreme Court has long recognized certain subject matter that is outside the scope of the congressional authorization, including abstract ideas and mental steps. This case raises the question: is a court duty-bound to determine whether a patent is in fact directed to subject matter eligible for patent protection, whenever the issue comes to the court’s attention?

A patent confers property rights on its owner, nationwide in scope, chief among them the right to exclude all others from making or using the patented invention. 35 U.S.C. § 154(a)(1). The patentee may seek damages from one who has infringed this right. 35 U.S.C. § 284. Petitioner seeks certiorari to ensure that when a federal court hears an infringement suit, it shall have the right—and indeed, the obligation where the issue arises—to determine whether the patent being asserted claims subject matter within the scope of the statute that defines whether the property right should exist. At the outset, this critical inquiry enables the court to determine whether Congress has ever accorded it the authority to recognize the plaintiff’s cause and

grant plaintiff remedies. This critical inquiry also serves the interests of justice, for it would be profoundly unfair to impose (in the form of remedies) a penalty under the patent laws on a party for using subject matter that should never have been granted a patent. In a broader aspect, a court's obligation to examine patent eligibility as the occasion demands would serve a vital role in preserving the careful balance between innovation and exclusion struck by Congress pursuant to its constitutional mandate "to promote the Progress of . . . useful arts," U.S. Const. art. I, § 8, cl. 8. Paramount to this balance is that not all forms of human endeavors qualify for a patent.

This case raises a question of federal law that is important to virtually every field of U.S. commerce. The proliferation of business method patents has brought with it a rise in patents of dubious eligibility and unquestionable toxicity. When left unchecked, those patents that claim ineligible abstract ideas, as opposed to patentable applications thereof, impose unnecessary costs and restrictions on innovators (and ultimately, the public), stifling rather than promoting the very progress sought by the Constitution. This Court has recently recognized the deleterious effects of ineligible patents, denying patentability in *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) (relating to abstract business methods) and invalidating claims in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012) (relating to natural phenomena).

In this case, the issue of patent eligibility under 35 U.S.C. § 101 was clearly before the Federal Circuit. Yet, in conflict with this Court's precedent and the concordant precedent of other Courts of Appeals, the

majority opinion of the Federal Circuit failed to address the question and simply assumed these patents-in-suit to be patent-eligible. As a result, Petitioner faces the specter of a trial to determine damages on patent monopolies that, under the congressionally authorizing statute as interpreted by this Court, should not actually exist—a fact recognized in the dissenting opinion. Clarifying a court’s duty to prevent this injustice, and to facilitate Congress’s constitutional objective of promoting progress, warrants this Court’s review.

STATEMENT OF THE CASE

I. THE PATENTS AT ISSUE HERE

Wesley W. Whitmyer, Jr. (“Mr. Whitmyer”) is the named inventor of U.S. Patent Nos. 5,895,468, 6,049,801 and 6,182,078 (the “patents-in-suit”). Mr. Whitmyer and WhitServe, LLC (“WhitServe” and, together with Mr. Whitmyer, “Respondents”) own the patents-in-suit. These patents-in-suit in pertinent part address paying taxes for patents. Countries throughout the world charge annuity fees at set time intervals for maintaining patents and patent applications in force. The “invention” of Mr. Whitmyer, himself a patent attorney, was directed to the abstract idea of providing people with reminders of approaching due dates and deadlines. App. 53a (Mayer, J., dissenting). Mr. Whitmyer accordingly claimed the use of a computer and the Internet (instead of a calendar and a phone call) to perform the mental steps of looking up the due dates and notifying clients of them.

The patents-in-suit nominally include method, “device” and “web site” claims that seek to foreclose the

use of e-mails, websites and associated software to remind patent holders about maintenance fee payments. As noted in the dissent in the decision below, the patents-in-suit “simply describe a basic and widely-understood concept—that it is useful to provide people with reminders of important due dates and deadlines—and then apply that concept using conventional computer technology and the Internet.” App. 55a.

II. THE DISTRICT COURT PROCEEDINGS

Petitioner CPi is a provider of docketing software and services. WhitServe sued CPi in 2006, alleging that some of CPi’s computerized patent docketing and maintenance products infringed one or more of the patents-in-suit.¹ CPi’s response to that complaint included an affirmative defense and a counterclaim that the asserted patents, *inter alia*, did not comply with 35 U.S.C. § 101; however, the patent-eligibility of any of the asserted patents was not made the subject of a motion to dismiss or for summary judgment, and the district court did not consider the matter on its own.

The case went to a jury trial in 2010, where the patents-in-suit were found willfully infringed, not invalid and not unenforceable. WhitServe was awarded over \$8 million in damages. The parties requested but were denied various forms of post-trial relief. Judgment was entered on June 29, 2010, and orders denying CPi’s motions for judgment as a matter of law, as well as concluding that the jury’s award “adequately addresses

¹ In addition to the patents-in-suit, WhitServe asserted infringement of U.S. Patent No. 6,981,007, which is not at issue in this petition.

all legal and equitable considerations,” were entered on January 14 and 21, 2011. App. 59a-61a. CPi appealed to the Court of Appeals for the Federal Circuit from the judgment and those orders.

III. THE FEDERAL CIRCUIT PROCEEDINGS

A. Oral Argument

The case was heard before a three-judge panel of the Federal Circuit on February 7, 2012 (Judges Prost, O'Malley and Mayer). At oral argument, Judge Mayer strongly questioned the patent-eligibility of the subject matter of the patents-in-suit. Judge Mayer pointedly recognized the court's power to raise the issue on its own: “that’s akin to jurisdiction as far as I can see.” App. 78a. at 15:20-21. He asked, “why is this even a patent case?” App. 78a at 15:25. When Respondent’s counsel made reference to computer hardware being an aspect of most of the claims, Judge Prost joined in, asking whether that was sufficient to make the idea patentable. App. 79a-80a at 16:23-17:1.

B. The Majority Opinion

The panel issued a split opinion on August 7, 2012. The majority opinion (Judges O'Malley and Prost) addressed the myriad legal issues appealed from trial: infringement, willfulness, invalidity, damages, post-trial equitable relief and sanctions. Specifically, as to the patents-in-suit in this petition, the findings of infringement, willfulness and no invalidity were upheld. The damages award was vacated, and a new trial was ordered limited to damages. The district court’s denials of WhitServe’s post-trial motions for equitable relief (*i.e.*, a permanent injunction, a compulsory license, prejudg-

ment interest, enhancement, attorney's fees, and an accounting) were vacated and remanded, while the denial of Mr. Whitmyer's request for sanctions and fees was affirmed. However, the majority did not mention the § 101 issue whatsoever.

C. The Dissent

Judge Mayer dissented from the panel opinion, rejecting the patents-in-suit "because they are invalid." App. 53a. In his view, the patents claim ineligible abstract subject matter, *i.e.*, the "idea that it is useful to provide people with reminders of approaching due dates and deadlines." App. 53a. Applying this Court's *Bilski* and *Mayo* decisions, Judge Mayer found the patents-in-suit to add nothing patentable to the long-existing practice of "attorneys and other professionals us[ing] manual docketing systems to keep track of upcoming deadlines for their clients." App. 54a. While the patents-in-suit purport to add computers and the Internet to this basic concept, Judge Mayer noted that "patent eligibility does not 'depend simply on the draftsman's art.'" App. 56a (quoting *Parker v. Flook*, 437 U.S. 584, 593 (1978)). Moreover, Judge Mayer deemed the limitation in the claims to communications between professionals and clients of no moment, as "[l]imiting an abstract idea to one field of use or adding token postsolution components [does] not make the concept patentable." App. 56a (quoting *Bilski*, 130 S. Ct. at 3231) (second alteration in original).

Judge Mayer additionally concluded that the court could and should raise the issue of patent eligibility even on appeal. App. 57a. Recognizing the

manifest injustice that would occur, Judge Mayer closed his dissent:

The majority errs in refusing to address the question of whether the [patents-in-suit] meet section 101's eligibility requirements and in requiring CPi to return to the trial court to relitigate the appropriate measure of damages for its alleged infringement of plainly invalid claims.

App. 58a (citing *Bradley v. Sch. Bd. of Richmond*, 416 U.S. 696, 711 (1974); *Hormel v. Helvering*, 312 U.S. 552, 557 (1941)).

D. The Denial of Rehearing *en Banc*

CPi petitioned for rehearing *en banc* on the limited grounds raised in Judge Mayer's dissent, namely, whether the patents-in-suit claimed statutory subject matter under 35 U.S.C. § 101. The Federal Circuit denied CPi's petition in a two-sentence order, devoid of explanation. App. 62a.

REASONS FOR GRANTING THE PETITION

The question presented by this case is vitally important to all aspects of U.S. commerce. In recent years, this Court has been confronted with ineligible subject matter that impacted the financial industry (*Bilski*) and the healthcare industry (*Mayo*); but no industry is immune from this increasing threat to the economy and innovation.² At the same time, the present

² See, e.g., *In re Bilski*, 545 F.3d 943, 1004-05 (Fed. Cir. 2008) (Mayer, J., dissenting) (dissenting from majority's failure to

case implicates a fundamental aspect of the law: a federal court's duty to ensure that there is indeed subject matter before it as to which it is empowered to order remedies.

Section 101 of Title 35 is unlike all other patent law provisions, as it defines the subject matter that Congress intended the Patent Laws to cover, and thus the scope of jurisdiction of the federal courts. While other patentability provisions provide further conditions on the character of that subject matter (35 U.S.C. §§ 102 & 103), and the inventor's obligations to disclose it (35 U.S.C. § 112), only § 101 defines what may be patented in the first place.

Thus, this Court has repeatedly recognized the gatekeeping function § 101 plays in patent law. In *Mayo*, this Court noted that § 101 performs a "screening function" that §§ 102, 103 and 112 cannot. 132 S. Ct. at 1303-04. In *Bilski*, the Court characterized the § 101 inquiry as a "threshold test" and "threshold condition," 130 S. Ct. at 3225, 3236, consistent with *Diamond v. Diehr*, 450 U.S. 175, 213 (1981), where the Court likewise called it the "threshold question."

overrule prior Federal Circuit decisions permitting business method patents, Judge Mayer noted an eleven-fold increase in patent applications for business practices over ten years, and provided examples of dubious patents across the board, including janitorial training, selling expert advice, enticing fast-food customers and obtaining a patent), *aff'd on other grounds, Bilski v. Kappos*, 130 S. Ct. 3218 (2010). For clarity, this Petition refers to the Federal Circuit disposition as "*In re Bilski*" and the Supreme Court disposition as "*Bilski v. Kappos*" or "*Bilski*."

Yet the panel decision below ignores this crucial threshold question into the subject matter of the patent, in direct conflict with Supreme Court case law and the case law from other Courts of Appeals. The practical consequence for CPi is the very real threat of being burdened with a damages award for infringing subject matter for which Congress has not accorded patent protection. Further, given the *in rem* nature of patent rights, a further practical consequence of a court electing to sit on the sidelines, in the face of a patentable subject matter issue, will be to impose on the public a levy whose legitimacy is entirely a function of the parties' private litigation concerns and tactics. For these reasons, as explained more fully below, the Court should grant certiorari.

I. A LOWER COURT HAS A DUTY TO CONSIDER § 101 PATENT ELIGIBILITY AS A MATTER OF SUBJECT-MATTER JURISDICTION

This Petition raises the issue as to whether a federal court must review the threshold question of patent eligibility under 35 U.S.C. § 101, whenever it becomes known to the court. Petitioner submits that it must, because § 101 defines the subject-matter jurisdiction of federal court patent infringement lawsuits.

While a statute is plainly jurisdictional if Congress has clearly stated so, *Reed Elsevier, Inc. v. Muchnick*, 130 S. Ct. 1237, 1244 (2010), that is not dispositive, for there are jurisdictional statutes not expressly designated as such. To determine whether a statute is jurisdictional, other considerations such as the statute's text and structure, the context, and the Court's

interpretation of similar provisions are relevant. *Id.* at 1244, 1248. Jurisdiction turns on whether the statute implicates the court's adjudicatory authority, as opposed to the rights or obligations of the parties. *See id.* at 1243.

Under the Court's framework, § 101 should be regarded as a jurisdictional statute. As a matter of context, § 101 is set apart as the first substantive provision of the Patent Act, Title 35, and by its terms defines what subject matter is eligible for patent protection. This placement was not random, but rather reflects the gatekeeping role that this statute is intended to play. In particular, compliance with § 101 is presumed for the substantive provisions that follow, because absent compliance those other provisions may be reduced to empty formalisms, depending upon the particular facts.

As one example, section 102 of the Patent Act requires a determination of the time when the invention was put on sale, or in public use. If a patent claim is directed to a mental step, or an abstract idea, it cannot be sold, as one does not buy or sell thought processes, or abstractions. Nor can a mental step, or an abstract idea, be put into public use, *per se*, as there is no physical product or result by which one could perceive the use (as distinguished from a practical application of either). Quite clearly, Congress did not intend for this particular statute to be applied to principles or ideas.

The same holds true for section 112, which requires the applicant to particularly point out and distinctly claim what he regards as his invention. If the invention is simply a mental step or an abstract idea

(the force applied to a mass is directly proportional to the acceleration it undergoes, as one example), the applicant has nothing more to say. Yet Congress plainly intended that more be present; that there be statutory subject matter—namely, an invention having a corporeal form, and thus capable of description with varying degrees of specificity.

Thus the predicate for these two critical sections of the Patent Act, sections 102 and 112, is that the patented subject matter be patentable subject matter. These and other portions of the statutory scheme fundamentally rely upon the presence of patentable subject matter in order for them to take on meaning.

Furthermore, from a textual standpoint, the words of § 101 do not state that the section is merely for according the parties rights in the course of a litigation, *see Reed Elsevier*, 130 S. Ct. at 1243, as compared with those provisions in the Act that do regulate those rights and obligations. For example, 35 U.S.C. § 282(b) provides as defenses in an infringement action only those grounds specified in Part II of Title 35 as a “condition for patentability.” The provisions of Part II that are conditions for patentability (per their titles) are just two in number: § 102, the novelty conditions of the Act, and § 103, the condition that the subject matter of a patent be non-obvious. Section 101, in comparison, is not entitled as a “condition for patentability.” Section 282(b) further specifies as defenses a failure to comply with the requirements of § 112 (patent specification), or § 251 (reissue of defective patents), as well as “any other fact or act made a defense by this Title.” Yet § 101 is not “made a defense” by its terms, or by any other

language in Title 35, and indeed, is not mentioned anywhere else in Title 35.

As the foregoing demonstrates, the Patent Act makes little sense in being applied to non-statutory subject matter, and yet Congress expressly did not remit to the parties to litigation the vital gatekeeping function of § 101. This compels that Congress intended subject-matter eligibility to be a question for review by the Courts³—as a matter of subject-matter jurisdiction—should a question arise as to whether a particular patent is within its scope. If there is no “patent”—or, as in this case, there is no subject matter of the type that Congress, within the scope of the Constitution’s authorization, deemed eligible for a patent under 35 U.S.C. § 101—then the essential element for federal court action does not exist. Based on these considerations, compliance with 35 U.S.C. § 101 implicates the court’s adjudicatory authority. *See Reed Elsevier*, 130 S. Ct. at 1243. Section 101 therefore should be regarded as a jurisdictional requirement.

This Court’s precedent rightly compels that compliance with the requisites of 35 U.S.C. § 101 is no mere claim processing rule, but a matter of subject-matter jurisdiction. As opposed merely to aiding a court in the orderly transaction of its business, § 101 delineates the classes of cases that fall within a court’s adjudicatory authority. *See Kontrick v. Ryan*, 540 U.S.

³ This responsibility is made more important here, given that the U.S. Patent and Trademark Office has no substantive rule-making power, or power to provide substantive law interpretations. *See Merck & Co. v. Kessler*, 80 F.3d 1543, 1549-50 (Fed. Cir. 1996); *Animal Legal Defense Fund v. Quigg*, 932 F.2d 920, 930 (Fed. Cir. 1991); 35 U.S.C. § 2.

443, 454-55 (2004). Accordingly, a question under § 101 must be considered by the court whenever it arises.

In *John R. Sand & Gravel Co. v. United States*, this Court held that the statute of limitations governing the Court of Federal Claims is jurisdictional, requiring *sua sponte* consideration. 552 U.S. 130, 132, 136 (2008). The Court considered how the statute was historically interpreted, taking particular note of *Kendall v. United States*, 107 U.S. 123 (1883). *John R. Sand*, 552 U.S. at 134-35. Notably, in *Kendall*, the Court held that the statute's predecessor was jurisdictional and that "*it [was] the duty of the court to raise the [timeliness] question whether it [was] done by plea or not.*" *John R. Sand*, 552 U.S. at 134 (quoting *Kendall*, 107 U.S. at 125-26) (alterations and emphasis in *John R. Sand* opinion). In light of that statute's historical treatment, it was held jurisdictional. *Id.* at 136. Likewise, as discussed in greater detail *infra* § II, like the statute of limitations in *Kendall*, the Court has long treated the question of patentability as one that a court must consider whether raised by the defendant or not—it cannot be waived. See, e.g., *Slawson v. Grant St., P.P. & F.R. Co.*, 107 U.S. 649, 652 (1883). This court's historical treatment of patentability compels that a question of subject-matter eligibility under 35 U.S.C. § 101 is likewise one of subject-matter jurisdiction.

Not to deem 35 U.S.C. § 101 jurisdictional in nature could potentially lead to very unfortunate results with regard to patents covering business or other commercial practices. Take, for example, a scenario in which the U.S. Patent and Trademark Office were to issue a patent for a method of entertaining at public events by playing a particular song (whose music and

lyrics were set forth in the patent), and the patent was asserted in an infringement lawsuit. Even if the song were original and clever, clearly it is non-statutory subject matter. The notion that a court could impose an injunction or damages under the song patent is opprobrious under any circumstance, even if the defendant never raised the issue of § 101. The court is properly deemed to lack the jurisdiction to impose those remedies because a song is not patentable subject matter, and the court should be obligated to say so—even if the parties do not.

II. A LOWER COURT ALSO HAS A DUTY TO CONSIDER § 101 PATENT ELIGIBILITY UNDER THIS COURT'S PRECEDENT

Independent of the jurisdictional character of 35 U.S.C. § 101, this Court's long-standing precedent requires a lower court to make the inquiry into patent eligibility once the issue presents itself. Yet the panel decision below failed to follow or even acknowledge that precedent.

In *Slawson*, a patent infringement suit, the case was dismissed in the lower court on grounds of unpatentability, even though no such defense was made. 107 U.S. at 652. This Court approved this practice and affirmed, *id.* at 655, declaring:

If letters patent are void because the device or contrivance described therein is not patentable, it is the duty of the court to dismiss the cause on that ground whether the defense be made or not. It would ill become a court of equity to render money

decrees in favor of a complainant for the infringement of a patent which the court could see was void on its face for want of invention. Every suitor in a cause founded on letters patent should, therefore, understand that *the question whether his invention is patentable or not, is always open to the consideration of the court, whether the point is raised by the answer or not.*⁴

Id. at 652 (emphases added). The Court reinforced this requirement in *Hill v. Wooster*, a suit seeking to redress an adverse decision by the patent office in an interference.⁵ 132 U.S. 693, 694-95 (1890). There, the Court stated:

[N]o adjudication can be made in favor of the applicant, unless the alleged invention for which a patent is sought is a patentable invention. . . . The parties to the present suit appear to have been willing to ignore the question as to patentability in the present case, and to have litigated merely the question of priority of invention, on the assumption that the invention was patentable. But neither the circuit court nor this

⁴ In *WhitServe v. CPI*, the unpatentability of the patents-in-suit under § 101 was in fact raised in the answer and counterclaims, *supra* p. 5.

⁵ The action was a suit in equity under Revised Statutes § 4915, which survives in modern form as 35 U.S.C. §§ 145-146. See *Kappos v. Hyatt*, 132 S. Ct. 1690, 1698-99 (2011). As *Hill* involved an interference, § 146 is the relevant modern statute.

court can overlook the question of patentability.

Id. at 698. As further examples, in both *Dunbar v. Myers* and *Brown v. Piper*, the Court voided the patents at issue, holding *sua sponte* that the claimed inventions were not patentable as applications of old processes to new subjects, which did not require any inventive effort—even though this defense was not raised by the defendants in their answers. *Dunbar*, 94 U.S. 187, 198 (1876); *Brown*, 91 U.S. 37, 44 (1875).

As the above cases make clear, the Supreme Court has recognized not only the authority, but the *duty*, to dismiss where the court could see that there was no patentable invention. The *Slawson* Court further emphasized the injustice that would befall a defendant who was forced to pay a monetary remedy on the defective patent.⁶

Not only is the Federal Circuit's failure to address patent eligibility at odds with this Court's precedent, it also departs from the law of many regional circuits (in decisions rendered before the establishment of the Federal Circuit in 1982), as the following demonstrate:

⁶ The courts in *Slawson* and *Hill* apparently did not consider the subject matter of their respective patents, but rather invalidated the patents as obvious. *Slawson*, 107 U.S. at 652-53; *Hill*, 132 U.S. at 699-701. Yet at least one circuit court has understood the gatekeeping function extends to § 101 as well. See *Howes v. Great Lakes Press Corp.*, 679 F.2d 1023, 1028 (2d Cir. 1982), discussed *infra*. Further, in light of the threshold nature of § 101 (e.g., *Bilski*, 130 S. Ct. at 3225, 3236; *Diehr*, 450 U.S. at 213), if obviousness is permitted to be considered at any time, then *a fortiori*, so must patent eligibility.

1. *Second Circuit:* In *Howes*, the court found no fault with the district court considering § 101 *sua sponte*, even as it reversed the district court's conclusion that the subject matter was ineligible. "Even were section 101 not raised by appellees, it was not error for the district court to consider it since it had the power to do so. Section 101 deals with the subject matter of patents and, as such, it is 'always open to the consideration of the court, whether the point is raised by answer or not.'" 679 F.2d at 1028) (quoting *Slawson*, 107 U.S. at 652).

2. *Third Circuit:* In *Borden Co. v. Clearfield Cheese Co.*, the court noted that "[i]t has been clear from an early date, that the court could dismiss a bill because the invention described in the patent was not patentable, even when no defense of invalidity was set up in the answer Accordingly, when a party brings suit on a patent alleging infringement, it is accountable for the validity of the patent" 369 F.2d 96, 99-100 (3d Cir. 1966).

3. *Sixth Circuit:* In *Palmer Pneumatic Tire Co. v. Lozier*, involving interfering patents, even though both parties urged that patentability (obviousness) was not at issue, the Sixth Circuit Court of Appeals held that "the court is bound to determine whether, upon identifying the subject-matter of the interfering patents, the invention therein stated is patentable. If it is not, and the court should go on and pronounce a decree of nullity against one of the patents, it would do so at the instance of one who has no right to protect, and consequently no standing on which to assail his adversary. . . . [T]he power of the court would be perverted to the determination of an unprofitable inquest as to who

was the first discoverer of a nullity.” 90 F. 732, 734 (6th Cir. 1898).

4. *Ninth Circuit*: In *Barkeij v. Lockheed Aircraft Corp.*, the court recognized that “it is the duty of the court to dismiss a patent infringement suit whenever it affirmatively appears that the patent is invalid.” 210 F.2d 1, 2 (9th Cir. 1954) (citing *Slawson*, 107 U.S. 649).

5. *Tenth Circuit*: In *Magic City Kennel Club, Inc. v. Smith*, the court acknowledged that “while the validity of plaintiff’s patent is not specifically in issue, this court would not be warranted in affirming a decree predicated on a device clearly not patentable. The Supreme Court has held that even if the question of patentability is ignored by the parties, ‘neither the circuit court nor this court can overlook the question of patentability.’” 38 F.2d 170, 173 (10th Cir. 1930) (quoting *Hill*, 132 U.S. 693), *aff’d*, 282 U.S. 784 (1931).

The Federal Circuit’s departure from this Court’s clear precedent as well as the law of numerous regional circuits warrants this Court’s review.

III. THE ABILITY OF A COURT TO DETERMINE PATENT ELIGIBILITY AT ANY TIME IS IMPORTANT TO BOTH THE PATENT SYSTEM AND U.S. ECONOMY

Patents claiming non-statutory subject matter threaten to encumber all areas of commerce in the United States. So-called “business method” patents are litigated at a much higher rate than patents drawn to other subject matter. J. Bessen & M. Meurer, *Patent*

Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk 150-55 (2008); see also *id.* at 187 (observing that business method patents are “particularly problematic”). Indeed, the term “business method” patent does not do justice to the scope of the problem presented here, as it seems the U.S. Patent and Trademark Office’s intent is to issue patents to cover any human activity. Recent cases before this Court and the Federal Circuit highlight the diversity of industries that would have had to face ineligible patents, including healthcare,⁷ finance,⁸ entertainment,⁹ retail,¹⁰ pharma-

⁷ *Mayo*, 132 S. Ct. at 1298 (diagnosing illness); *Ass’n for Molecular Pathology v. U.S. Patent & Trademark Office*, 689 F.3d 1303, 1309 (Fed. Cir.) (invalidating certain claims for screening of genetic mutations), *cert. granted on other grounds sub nom. Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, No. 12-398, 81 U.S.L.W. 3199 (U.S. Nov. 30, 2012) (human genes); *PerkinElmer, Inc. v. Intema Ltd.*, No. 2011-1577, 2012 WL 5861658, at *1 (Fed. Cir. Nov. 20, 2012) (prenatal screening); *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067-68 (Fed. Cir. 2011) (reviewing immunization schedules), *on remand from* 130 S. Ct. 3541 (2010) (vacating and remanding prior opinion in light of *Bilski*).

⁸ *Bilski*, 130 S. Ct. at 3229 (hedging risk); *Bancorp Servs., LLC v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1277 (Fed. Cir. 2012) (managing life insurance policies); *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1318-19 (Fed. Cir. 2012) (investing in real estate); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) (processing credit applications).

⁹ *WildTangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431 (Internet media) (granting certiorari and vacating decision below in light of *Mayo*), *vacating Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323, 1328 (Fed. Cir. 2012) (upholding claims under § 101).

¹⁰ *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1367 (Fed. Cir. 2011) (online credit card transactions).

ceuticals,¹¹ marketing¹² and, in the present case, the practice of law. In *Bilski*, Justice Breyer, joined by Justice Scalia, lamented “the granting of patents that [has] ranged from the somewhat ridiculous to the truly absurd.” *Bilski*, 130 S. Ct. at 3259 (Breyer, J., concurring in judgment).

This Court was keenly aware of and quite ably explained the significant policy considerations in rejecting ineligible patents in *Mayo*:

[E]ven though rewarding with patents those who discover new laws of nature and the like might well encourage their discovery, those laws and principles, considered generally, are the basic tools of scientific and technological work. And so there is a danger that the grant of patents that tie up their use will inhibit future innovation premised upon them, a danger that becomes acute when a patented process amounts to no more than an instruction to “apply the natural law,” or otherwise forecloses more future invention than the underlying discovery could reasonably justify. See generally Lemley, Risch, Sichelman, & Wagner, *Life After Bilski*, 63 Stan. L. Rev. 1315 (2011) (hereinafter Lemley) (arguing that § 101 reflects this kind of concern); see also C.

¹¹ *AstraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042, 1065 (Fed. Cir. 2010) (drug kit with label).

¹² *In re Ferguson*, 558 F.3d 1359, 1361 (Fed. Cir. 2009) (shared marketing).

Bohannon & H. Hovenkamp, Creation without Restraint: Promoting Liberty and Rivalry in Innovation 112 (2012) (“One problem with [process] patents is that the more abstractly their claims are stated, the more difficult it is to determine precisely what they cover. They risk being applied to a wide range of situations that were not anticipated by the patentee”); W. Landes & R. Posner, The Economic Structure of Intellectual Property Law 305–306 (2003) (The exclusion from patent law of basic truths reflects “both . . . the enormous potential for rent seeking that would be created if property rights could be obtained in them and . . . the enormous transaction costs that would be imposed on would-be users [of those truths]”).

132 S. Ct. at 1301-02 (internal quotation marks and citation omitted) (second and third alterations in original).

In order to carry out the Court’s clear imperative, a lower court must be empowered and duty-bound to review the subject-matter eligibility of a patent at any point the issue arises. Giving lower courts the discretion to overlook this issue would otherwise judicially ratify the removal from the public domain of “basic tools of scientific and technological work.” The federal courts would be willing accomplices in upsetting the carefully crafted balance between innovation and exclusion, “foreclos[ing] more future invention than the underlying discovery could reasonably justify.” Enormous unjustified costs would be imposed on the users of that basic

~~information—a consequence CPi now faces, as it must proceed to a new trial for damages on the patents-in-suit—and imposed more broadly on the consuming public.~~

The Federal Circuit has refused to follow or even acknowledge this Court's guidance as relevant here. The Court should grant review and restore the lower courts' gatekeeping responsibility over the patent system.

IV. THE PATENTS-IN-SUIT ARE PLAINLY INELIGIBLE AND INVALID UNDER 35 U.S.C. § 101

As to the merits of the patents-in-suit, there is no question that they consist of “plainly invalid claims” that “simply describe a basic and widely-understood concept—that it is useful to provide people with reminders of important due dates and deadlines—and then apply that concept using conventional computer technology and the Internet.” App. 55a (Mayer, J., dissenting). Specifically, claim 1 of U.S. Patent No. 5,895,468 is representative (App. 7a), and it recites:

A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

App. 108a. Although formally claiming a “device” (while other claims are directed to a “web site,” or a method), claim 1 is no less an abstract idea. This Court has refused to exalt form over function, forbidding that “the determination of patentable subject matter depend simply on the draftsman’s art, [which] would ill serve the principles underlying the prohibition against patents for ‘ideas’ or phenomena of nature.” *Flook*, 437 U.S. at 593. Indeed, the ostensibly physical components of claim 1—a computer, a database (presumably meaning the computer’s memory), and a communication

link—are “well-understood, routine [and] conventional” elements proscribed in *Mayo*, 132 S. Ct. at 1298.

Once stripped of formalisms designed to make the claims appear directed to patent-eligible subject matter, all that remains are the unquestionably abstract concepts—as recognized by Judge Mayer—of comparing two dates, retrieving a client reminder if the dates are close, and sending and receiving client reminder correspondence. These are simply mental processes or abstract ideas not eligible for a patent.¹³

Section 101 does not permit Respondents to patent the abstract idea of an attorney providing reminders to his or her clients about an upcoming deadline. The claims of the patents-in-suit are directed to ineligible abstract subject matter, and the Court should grant review and invalidate all of the claims.

V. THIS CASE IS AN APPROPRIATE VEHICLE FOR REVIEW

This case is well suited for the Court’s review. The district court did not address § 101, and the Federal Circuit was on notice of this issue, as Judges Prost and Mayer questioned the parties on the subject during oral argument. Nevertheless, the majority opinion “refus[ed]

¹³ Some claims of the patents-in-suit purport to be limited to specific applications, like the claims in U.S. Patent No. 6,049,801 that include an “intellectual property identifier” such as a “patent number.” App. 117a, claim 3. Of course, “the prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use . . . to a particular technological environment’ or adding ‘insignificant postsolution activity.’” *Bilski*, 130 S. Ct. at 3230 (quoting *Diehr*, 450 U.S. at 191-92).

to address the question” (App. 58a), and Judge Mayer wrote a compelling dissenting opinion detailing how the claims are ineligible. As a result, CPi faces the manifest and real injustice of paying damages on the patents-in-suit. Thus, the questions presented—whether a court must consider § 101 at any time the issue comes to the court’s attention, and whether the patents-in-suit in fact claim abstract ideas—are squarely before the Court.

Patent eligibility under § 101, like other inquiries into subject-matter jurisdiction, is a matter of law for a court to decide. *E.g.*, *In re Bilski*, 545 F.3d at 951. However, the Federal Circuit has evinced a predilection to avoid decisions under § 101. In *MySpace, Inc. v. GraphOn Corp.*, the majority devoted almost half of its opinion to expository dicta discussing why it should not have to consider § 101 before the conditions for patentability and patent specification requirements of §§ 102, 103 and 112, especially when the parties did not raise the issue. 672 F.3d 1250, 1258-62 (Fed. Cir. 2012). The court asserted that §§ 102, 103 and 112 are “well developed and generally well understood,” so “[i]n most cases when properly applied they will address the specifics of the case and decide that particular case, nothing more.” *Id.* at 1260. Section 101, in contrast, was deemed a “swamp of verbiage,” and the majority wished to avoid the “murky morass that is § 101 jurisprudence.” *Id.* The majority essentially concluded that § 101 considerations are too hard, and it affirmed the district court’s invalidation of the claims under §§ 102 and 103. *Id.* at 1258. Judge Mayer, in a similar dissent to his in the present case, advocated for a threshold § 101 review in line with this Court’s precedent. *Id.* at 1264; *see generally id.* at 1264-70 (Mayer, J., dissenting).

However appropriate was the *MySpace* majority's concerns to that case, they are inapplicable here. In *MySpace*, the case was dispatched under §§ 102 and 103, *id.* at 1258, leaving a § 101 analysis unnecessary. In the present case, however, §§ 102 and 103 are no longer at issue, and there is no other avenue for invalidating the claims of the patents-in-suit.

Finally, Petitioner notes that the Federal Circuit has decided to take up, yet again, the standard for determining § 101 eligibility. *CLS Bank Int'l v. Alice Corp.*, 484 Fed. App'x 559, 559-60 (Fed. Cir. 2012), *granting reh'g en banc and vacating* 685 F.3d 1341. Indeed, judging from the questions the Federal Circuit seeks to address in its order for rehearing, it appears that the court is merely continuing the long search undertaken by it and its predecessor court for a "bright-line" standard of patent eligibility, *see In re Abele*, 684 F.2d 902, 907 (C.C.P.A. 1982) (adopting a test as to whether an algorithm is "applied in any manner to physical elements or process steps"¹⁴); *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998) (adopting a "useful, concrete and tangible result" test); *In re Bilski*, 545 F.3d at 959 (adopting a "machine-or-transformation" test)—a search this Court has cautioned against, *see Mayo*, 132 S. Ct. at 1305 ("[W]e must hesitate before departing from established general legal rules lest a new protective rule that seems to suit the needs of one field produce unforeseen results in another."). This Court therefore

¹⁴ *Abele* expanded on the Court of Customs and Patent Appeals' prior decisions in *In re Freeman*, 573 F.2d 1237 (C.C.P.A. 1978) and *In re Walter*, 618 F.2d 758 (C.C.P.A. 1980), and its test came to be known as the "*Freeman-Walter-Abele*" test. *See, e.g., In re Bilski*, 545 F.3d at 958-59.

need not and should not wait for *CLS Bank's en banc* resolution, as *CLS Bank* will not determine whether a court has the duty to address § 101 *sua sponte*.

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be granted.

Respectfully submitted,

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APPENDIX

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APPENDIX A

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

WHITSERVE, LLC,
Plaintiff/Counterclaim Defendant-Cross Appellant,

and

WESLEY W. WHITMYER, JR.,
Third Party Defendant-Cross Appellant,

v.

COMPUTER PACKAGES, INC.,
Defendant/Counterclaim Plaintiff-Appellant.

2011-1206, -1261

Appeals from the United States District Court for the
District of Connecticut in case no. 06-CV-1935, Judge
Alfred V. Covello.

Decided: August 7, 2012

GENE S. WINTER, St. Onge Steward Johnston &
Reens, LLC, of Stamford, Connecticut, argued for plain-
tiff/counterclaim defendant-cross appellant and Third
party defendant-cross appellant. With him on the brief
were ERIN R. WOELKER, MICHAEL J. KOSMA, and
STEPHEN BALL.

JOHN A. KRAUSE, Fitzpatrick, Cella, Harper &
Scinto of New York, New York argued for defend-
ant/counterclaim plaintiff-appellant. With him on the
brief were DOUGLAS SHARROTT, MARC J. PENSABENE and

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ROBERT J. CZARNECKI, JR. Of counsel was ROBERT H. FISCHER.

Before PROST, MAYER and O'MALLEY, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* O'Malley.
Dissenting opinion filed by *Circuit Judge* Mayer.

O'MALLEY, *Circuit Judge*.

This patent case, presenting myriad issues, includes an appeal from a jury's finding of willful infringement of four patents, a cross-appeal of the trial court's denial of various post-trial motions, and a separate cross-appeal of a denial of sanctions and attorneys' fees. On the appeal, we affirm the jury's finding of infringement, affirm the jury's finding of no anticipation of most, but not all, claims, and we vacate the jury's damages award and remand for a new trial on damages. On the cross-appeal, we remand for a proper determination of the post-trial motions at issue. As to the separate cross-appeal, we affirm the denial of fees and sanctions.

BACKGROUND

This case is between WhitServe, LLC ("WhitServe"), a company owned by Wesley Whitmyer, Jr., and Computer Packages, Inc. ("CPi"). Mr. Whitmyer is WhitServe's sole principal and employee, and is both an inventor and a practicing patent attorney. CPi is in the business of helping other businesses pay their patent maintenance fees on time. WhitServe sued CPi, alleging that CPi's systems infringe four of its patents, all of which list Whitmyer as their inventor and have been assigned to WhitServe.

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The patents at issue are U.S. Patent No. 6,981,007 (the '007 Patent), entitled "Onsite Backup for Internet-Based Data Processing," and the "468 Family" of patents: U.S. Patent No. 5,895,468 (the '468 Patent), entitled "System Automating Delivery of Professional Services"; U.S. Patent No. 6,182,078 (the '078 Patent), entitled "System for Delivering Professional Services Over the Internet"; and U.S. Patent No. 6,049,801 (the '801 Patent), entitled "Web Site Providing Professional Services." The '468 Family is directed to automating the delivery of professional services while the '007 Patent covers technology for backing up client data. At trial, WhitServe asserted that CPi's products—Desktop EARS, TERMS, CPi OnLine, Hosted EARS, and Hosted PMS—infringe WhitServe's four patents. EARS and TERMS are computer software programs operated by a CPi customer, such as a law firm, to generate and send reminders to its clients of upcoming patent or trademark annuity or maintenance fee deadlines. CPi OnLine, Hosted EARS, and Hosted PMS serve the same purpose, but the CPi software and annuity database are "hosted" on CPi's servers, rather than stored on the client's computers.

CPi answered WhitServe's complaint with affirmative defenses and a counterclaim against WhitServe seeking a declaratory judgment of non-infringement, invalidity and unenforceability. CPi also named Whitmyer as a "counterclaim defendant," asserting that he is the alter ego of WhitServe, that he is the true owner of the asserted patents, and that he

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personally engaged in inequitable conduct in the prosecution of those patents.¹

The primary factual dispute at trial concerned how CPI's products operated, and whether they fell within the '468 Family claims' definition of "automatic." There was also a dispute over whether the '007 Patent was anticipated by the prior art. The jury found that CPI failed to prove any claims invalid, that CPI's systems infringed the four patents, that CPI's infringement was willful, and that WhitServe was entitled to \$8,378,145 in damages.²

After trial, the trial court denied all of WhitServe's requested post-trial relief. First, the court denied WhitServe's request for a permanent injunction on the merits, and did not address a request for a compulsory license. WhitServe's requests for enhanced damages and attorneys' fees, prejudgment interest, prejudgment remedy, and disclosure were then dismissed as "moot" in light of the trial court's order entering judgment, in which it stated that "[t]he court concludes that the . . . jury verdict . . . is fair, just, and reasonable and adequately addresses all legal and equitable considerations." WhitServe's motion for post-trial accounting was denied as "moot" without explanation. The district court later reconsidered

¹ Because Whitmyer was not a plaintiff to the original action, he was later realigned as a third-party defendant, though it is unclear when that occurred and whether it was done by court order or stipulation.

² Willfulness has not been appealed. *See* Oral Arg. at 36:47-37:00, available at <http://www.cafc.uscourts.gov/oral-argument-recordings/2011-1206/all> ("The only reason we didn't appeal it is because there are so many issues in the case already.").

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WhitServe's "mooted" motions and this time denied them on the merits after stating that the "damages awarded in favor of the plaintiff . . . constitute complete compensation with respect to this matter." The court entered judgment in favor of Whitmyer on the third party complaint "consistent with the jury's verdict," but denied a motion by Whitmyer seeking fees and sanctions from CPi for the assertion of that claim. The court explained its denial of Whitmyer's motion by stating that he had "failed to set forth facts warranting such relief." The court also denied as "moot" a series of motions CPi filed seeking judgment as a matter of law (JMOL) and/or a new trial, again on the grounds that the jury verdict was "fair, just and reasonable."

CPi appealed and WhitServe and Whitmyer each cross-appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

CPi claims that the trial court erred in denying its post-trial motions for JMOL and/or a new trial. It argues that (1) its products do not infringe the '468 Family because they do not work "automatically"; (2) the '007 Patent is anticipated by the prior art; and (3) the damages award should be reduced or vacated for a new trial.³ WhitServe cross-appeals on grounds that it should have been granted a permanent injunction or compulsory license against CPi and that it was entitled to prejudgment interest, enhanced damages, attorneys' fees, and a post-trial accounting. Whitmyer cross-appeals requesting his fees and expenses.

³ CPi's claim that the patents are unenforceable and its request for a "correction of ownership" are not at issue in this appeal.

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DISCUSSION

I. CPi's Appeal

We first address CPi's arguments on appeal. As noted, we affirm the trial court's denial of JMOL on infringement because substantial evidence supports the jury's verdict. We also affirm the denial of JMOL on anticipation on most claims, but reverse-in-part because we find that substantial evidence does not support the jury's finding that Claim 10 of the '007 Patent is not anticipated. We remand for a new trial on damages because the jury's damages verdict is unsupported by the record and the trial court abused its discretion when it failed to order a new damages trial.

This court reviews denial of post-trial motions under regional circuit law, the Second Circuit in this case. *See Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 563 F.3d 1358, 1370 (Fed. Cir. 2009). The Second Circuit reviews a denial of JMOL de novo. *AMW Materials Testing, Inc. v. Town of Babylon*, 584 F.3d 436, 456 (2d Cir. 2009). Similar to the frequently applied substantial evidence standard,

a district court may set aside the [jury's] verdict pursuant to Rule 50 only where there is "such a complete absence of evidence supporting the verdict that the jury's findings could only have been the result of sheer surmise and conjecture, or there is such an overwhelming amount of evidence in favor of the movant that reasonable and fair minded men could not arrive at a verdict against him."

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Id. (quoting *Cross v. N.Y.C. Transit Auth.*, 417 F.3d 241, 248 (2d Cir. 2005)). The Second Circuit considers the evidence in the light most favorable to the non-moving party and gives that party the benefit of all reasonable inferences that the jury might have drawn in the non-movant's favor. *Caceres v. Port Auth.*, 631 F.3d 620, 622 (2d Cir. 2011).

A. Infringement

Claim 1 of '468 Patent is representative of the claims in the '468 Patent Family. It recites:

A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for *automatically querying* said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for *automatically generating* a client response form based on the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for *automatically transmitting* the client response form to

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the client through said communication link;
and,

software executing on said computer for *automatically receiving* a reply to the response form from the client through said communication link.

'468 Patent col. 6 l. 56 to col. 7 l. 8 (emphases added).

The district court interpreted “automatic” in the claims as:

a process that, once initiated, is performed by a machine without the need for manually performing that process, that is, without the need for human intervention. A machine may still perform the claimed process automatically, even though a human might manually initiate or interrupt the process.

In reaching the conclusion that the term “automatic” as used in claim 1 does not exclude all possible human intervention, the trial court relied on our decision in *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1235 (Fed. Cir. 2005), where we explained that dishwashers and autopilots could still be automatic even though they must be started by a human, or their operation may be interrupted by a human. As we did in *CollegeNet*, the trial court focused on the use of the term “comprising” in the claim to find that unrecited elements of manual, human actions were not excluded from its scope. *See id.* at 1235 (stating that, “[w]hile claim 1 does not expressly provide for human

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intervention, the use of ‘comprising’ suggests that additional, unrecited elements are not excluded. Such elements could include human actions to expressly initiate the automatic [querying, generating, transmitting, or receiving], or to interrupt such functions.”). The trial court then explained why it believed this construction of automatic was supported both by the patent’s specification and by its prosecution history.

CPi does not challenge the trial court’s claim construction on appeal.⁴ Instead, CPi argues that, even allowing for the presence of some manual intervention in the elements of the claims, its products do not infringe because they require a type of manual intervention not contemplated by or consistent with the asserted claims. CPi contends that, while all of the asserted claims of the ’468 Family require “software executing on said computer for automatically querying said database by values attributed to each client reminder date field to retrieve a client reminder,” “the

⁴ While CPi alluded to the possibility that the trial court’s claim construction was contrary to the patent’s specification and prosecution history at times in its opening brief, it did not raise the issue in the “Statement of the Issues,” cited no legal support for its claim construction “arguments,” and did not even recite the standard of review for claim construction. It has, accordingly, waived the ability to argue for an alternative claim construction. *See Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 973 n. 4 (Fed. Cir. 2006) (stating that failure to set forth substantive discussion of claim construction in the statement of the issues presented, summary of the argument, and argument itself, constitutes waiver of any alternative claim construction). This finding renders moot WhitServe’s motion, filed after CPi’s opening brief, asking that we prohibit CPi from later requesting de novo review of the court’s claim constructions.

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accused products all require, at minimum, the manual entry of a due date range during the execution of the querying process.” Appellant’s Br. 30 (original emphasis deleted).⁵ Essentially, CPi argues that, because a person using their products must manually choose a due date range to be queried, and, in its view, choosing the date range occurs during the querying process, there is no infringement because that manual action neither initiates nor interrupts the querying process. WhitServe counters that this argument is illogical because the “querying process does not start until the user enter[s] a date range and starts the process.” Cross-Appellant’s Br. 59. We agree with WhitServe. We find that there is substantial evidence to support the jury’s implicit finding that choosing a due date range is separate from CPi’s automated querying process and that all other manual operations required by CPi’s products are outside the automated tasks required by the claims.

Dr. Sayward was WhitServe’s expert on the fields of computer science, docketing systems, database management, and Internet and network applications. He testified that in analyzing CPi’s products for infringement, he spent “hundreds of hours” looking at the products’ source code and user manuals, and experimenting with test accounts. Dr. Sayward explained, element by element, how, for example, CPi’s Hosted EARS product worked and infringed claim 1 of the ’468 Patent. Regarding the “automatically querying” element, he explained that, after “enter[ing] a date

⁵ In a footnote, CPi raises another reason why it believes the ’801 Patent is not infringed. Appellant’s Br. 32 n.4. This argument is waived. *SmithKline Beecham v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006) (“[A]rguments raised in footnotes are not preserved.”).

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range,” the user “press[es] the search button.” “After pressing the search button what happens under the scene is that the database of client reminders are searched and then a display is produced which shows the results of that search.” “So after the law firm enters the information and clicks the search button, Hosted EARS automatically queries at that time.” Thus, Dr. Sayward testified that “entering a date range” happens before the querying begins in Hosted EARS and the querying process itself (checking the database entries against a desired date range) happens automatically. Dr. Sayward testified similarly about Desktop EARS/TERMS, and CPi Online.

When CPi’s counsel cross-examined Dr. Sayward, he asked whether the querying process could start before due dates were manually entered by the user. Dr. Sayward rejected that proposition and stated that entering the date range can not be part of the querying process because prior to entering the date range “you haven’t formed a proper question.” To be a query, “you need a date range, so that you know what you’re searching for.” The jury was entitled to credit this explanation and reject CPi’s theory that querying involves choosing the date range to be searched.

CPi’s argument that their products require “date entry” and other manual steps does not negate the fact that, when the evidence is viewed in the light most favorable to WhitServe, there was substantial evidence to support a finding to the contrary. Thus, we affirm the

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trial court's denial of CPI's motion for JMOL of noninfringement.⁶

B. Anticipation

The jury found that two of CPI's products, Hosted EARS and Hosted PMS, infringed all 15 claims of the '007 Patent. It also found that CPI's Desktop Ears product infringed claim 10 of the '007 Patent. CPI concedes that it infringes the '007 Patent, if valid, but argues that the '007 Patent is invalid under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 5,903,881 ("the Schrader Patent"). We conclude that claim 10 of the '007 Patent is invalid as anticipated, but that substantial evidence supports the jury's finding of no anticipation as to the other claims.

"[A] claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference." *Celeritas Techs., Ltd. v. Rockwell Int'l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998). The "elements must be arranged or combined in the same way as in the claim," but "the reference need not satisfy an *ipsissimis verbis* test." *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (internal citations and quotation marks omitted). Also, the reference must "enable one of ordinary skill in the art to make the invention without undue experimentation." *Impax*

⁶ From this evidence, the jury reasonably also could have concluded that CPI's products infringed under the doctrine of equivalents. The jury was instructed that they could find infringement under the doctrine, but CPI appealed only on the basis that its products do not literally infringe. There is, accordingly, more than one basis upon which to conclude that substantial evidence supports the jury's infringement verdict.

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Labs., Inc. v. Aventis Pharm. Inc., 545 F.3d 1312, 1314 (Fed. Cir. 2008). Patents are presumed to be valid and invalidity must be proven by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238, 2242 (2011). Anticipation is a question of fact reviewed for substantial evidence when tried to a jury. *Orion IP, LLC v. Hyundai Motor Am.*, 605 F.3d 967, 974 (Fed. Cir. 2010). Because the jury found that the patents were not invalid, under the Second Circuit's JMOL standard, we review the evidence to see if there is such an "overwhelming amount of evidence in favor of [CPI] that reasonable and fair minded men could not arrive at a verdict against [it]." *AMW*, 584 F.3d at 456. This is a high burden.

The '007 Patent is entitled "Onsite Backup from Internet-Based Data Processing." It recognizes that many companies have moved their data processing systems from their private networks to the Internet and now allow their customers to access and manipulate their data via a web interface. '007 Patent col. 1 ll. 21-24. The object of the '007 Patent is to allow clients to backup to their own computer a copy of their Internet-based data, which, from the specification, appears to be data resulting from outsourced data-processing that is stored on a central computer separated from the client's network by the Internet. *Id.* col. 1 ll. 21-24, col. 2 ll. 6-24. This objective is the opposite of traditional backup systems, which allow the client to copy data from their own computer onto an external computer or server. *Id.* col. 1 ll. 49-56. In addition to saving a copy of the Internet-based data, dependent claims 3, 6, and 9 go on to claim "software executing on said central computer for retrieving said data backup." *Id.* col. 3 ll. 48-50, col. 4 ll. 12-15, col. 4 ll. 49-51. Essentially, those claims recite

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the central computer's ability to restore any lost data by retrieving it from the client's personal computer.

CPi focused its anticipation case on claim 10. It recites:

A system for local storage of data through the Internet comprising:

a central computer connected to the Internet;

a client computer connected to the Internet;

at least one storage having a plurality of *client data* records, said at least one storage accessible by said central computer, each *client data* record having an identifier that relates the *client data* record to a client;

a *client data request*, sent from said client computer via the Internet to said central computer; and

client data corresponding to said *client data request*, sent from said central computer via the Internet to said client computer and saved on said client computer.

Id. col. 4 ll. 52-64 (emphases added).

The Court construed "client data" to mean "a complete or partial backup or copy of data records corresponding to a particular client." It interpreted "data request" to mean "a data backup request." Neither party appeals these claim constructions. Thus, claim 10

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requires: a client and central computer, each connected to the Internet; backups or copies of data records corresponding to a particular client that are identifiable by client and accessible by the central computer; a data backup request sent by the client computer to the central computer; and a complete or partial backup or copy of data records corresponding to that client sent from the central computer to the client computer where they are then saved. Basically, it allows clients to access and copy their own files or files associated with them from across the Internet. On its face, claim 10 (as well as claims 11-15, which depend from claim 10) does not recite Internet-based data, which is differentiated from general client data by the fact that it must be accessible and modifiable by the client's act of processing the data over the Internet. See '007 Patent col. 1 ll. 21-24, col. 2 ll. 6-24.

The Schrader Patent is the only piece of prior art upon which CPI relied for its anticipation defense. It discloses an electronic checkbook system that reconciles pending financial transactions against cleared transactions.⁷ Among other things, it claims: a computer-based system that allows the user to send transactions from his computer to a financial institution's computer system for processing; a display showing an account balance of all cleared transactions; a display showing an account balance of both cleared and uncleared transactions; the ability to receive from the financial institution a list of transactions cleared since the last time they were checked; and then updating the two account balances. Schrader Patent col. 19 l. 48 to col. 20 l. 25. In the section of the specification entitled

⁷ The Schrader Patent is sold under the trademark Quicken®.

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“Update Statement,” it explains that, once a user requests an update, the “personal finance application connects to the financial institution computer system” over the Internet. *Id.* col. 16 l. 63 to col. 17 l. 5. Then the software “creates a request file that includes a request for all cleared transactions since the date of the last update” that is sent to the financial institution. *Id.* col. 17 ll. 6-9, ll. 15-19. In response, the financial institution’s computer system “creates a response file that contains the set of transactions that have been cleared” since the last update. *Id.* col. 17 ll. 22-25. The response file is then sent back to the application and processed, which includes “extracting each of the cleared transactions from the response file and storing them.” *Id.* col. 17 ll. 26-38.

CPI’s expert, Dr. Alexander, testified about claim 10 and stated that, in Schrader, the users “retriev[e] from the financial institution these records, just as the ’007 Patent requires downloading to a client.” He also stated that the download is “to your business or personal computer from the bank’s computer.” “[T]he banks maintain the database with your checkbook record” and “these are records that are specific to you.” “So there’s a request. In the case of the Quicken Schrader prior art, you’re at a personal computer, at your business or at home, and you request the downloading of records that essentially are unposted records that the bank has processed.” Then, according to Dr. Alexander, the “the bank giv[es] you the response file, which is the records that are specific to you, based on your client ID, your account number.” “And these records are saved on your computer in the case of Quicken, the Schrader patent, they are saved on your computer, and/or business computer.” His testimony

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tracks all of claim 10's elements. CPi argues that, therefore, the Schrader Patent, which describes a computer downloading files specific to the user from a central computer, contains all of the limitations claimed in the '007 Patent.

WhitServe argues that Schrader is missing certain elements claimed in the '007 Patent. WhitServe states that "Dr. Sayward testified at trial that Schrader was missing additional key claim elements: (1) a central computer for transmitting client data to a client computer (required by all claims 1-15); (2) Internet-based data (required by claims 1-9); and (3) data conversion (required by claims 7-9 and 12-15)." We conclude that claim 10 of the '007 Patent is anticipated by the Schrader Patent despite these asserted differences. First, Schrader clearly discloses a central computer in the form of the financial institution's computer. Additionally, claim 10 recites neither Internet-based data nor data conversion. In fact, the only rebutting testimony offered by WhitServe specifically regarding claim 10 was its expert's conclusory testimony that claim 10's limitations "aren't taught by Schrader."

In its brief, WhitServe argues that Schrader does not anticipate claim 10: "Schrader does not relate to a system for backing up *client data*" because "the Schrader request file is not a request for a data backup of *existing* data, but rather is a request for *new* data relating to cleared transactions since the client was last online." Cross-Appellant's Br. 70 (emphases added). Such "arguments of counsel cannot take the place of evidence lacking in the record." *Estee Lauder Inc. v. L'Oreal, S.A.*, 129 F.3d 588, 595 (Fed. Cir. 1997)

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(internal citations and quotation marks omitted). Moreover, claim 10 does not distinguish between data that is “existing” or “new,” and instead recites only “client data,” which was defined as “a complete or partial backup or copy of data records corresponding to a particular client.” Data corresponding to a user’s cleared financial transactions clearly satisfies the definition of a “copy of data records corresponding to a particular client.”

WhitServe points to no other elements that distinguish claim 10 from the Schrader Patent and does not argue that the Schrader Patent is not enabling. See *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003) (explaining that there is “a [rebuttable] presumption . . . that both the claimed and unclaimed disclosures in a prior art patent are enabled.”). Thus, in this case, even viewing the evidence in a light most favorable to WhitServe, no reasonable juror could have found that claim 10 was not anticipated by the Schrader Patent. Therefore, the trial court’s denial of CPi’s motion for JMOL regarding claim 10 is reversed because claim 10 is anticipated by the Schrader Patent. Contrary to CPi’s arguments, however, the fact that claim 10 is invalid does not cause all of the other claims of the ’007 Patent to fail.

We do not invalidate the rest of the claims because they contain additional elements that CPi has not established were either anticipated or obvious. The law states:

Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid

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independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting invalidity.

35 U.S.C. § 282. “Typically, testimony concerning anticipation must be testimony from one skilled in the art and must identify each claim element, state the witnesses’ interpretation of the claim element, and explain *in detail* how each claim element is disclosed in the prior art reference.” *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1315 (Fed. Cir. 2002) (emphasis added).

In *Koito Manufacturing Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1151 (Fed. Cir. 2004), the defendant entered another patent into evidence as anticipatory prior art, “but otherwise failed to provide any testimony or other evidence that would demonstrate to the jury how that reference met the limitations of the claims” Instead, the defendant’s expert testified about four prior art patents simultaneously and stated:

All these prior art patents provide for products and ways of making products with thick and thin sections. The gate locations are shown, and they all have inherently crossing flows in sections of the product, sometimes substantial sections of these products, such that they all would have a cross-laminated section as Turn Key is applying that term to the accused lenses.

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Id. at 1152. We held that such “[g]eneral and conclusory testimony . . . does not suffice as substantial evidence of invalidity.” *Id.* Because general and conclusory testimony is not enough to be even substantial evidence in support of a verdict, it is certainly not enough to require us to overturn a jury’s finding of no invalidity.

In this case, CPI’s expert, Dr. Alexander, explained what part of the Schrader Patent anticipated each element in claim 10. When asked if encryption and data format conversion were well known at the time the ’007 Patent was filed, he answered affirmatively. CPI’s attorney then asked, “Do you have an opinion on the validity of Claims 1, 2, 3, 7, 8, 9, 10, 11, 12, 13, 14 and 15 of the ’007 Patent?”⁸ Dr. Alexander replied, “Yes, they’re all invalid because of prior art.” Finally, CPI’s attorney asked, “And are all the elements of those claims disclosed in the Schrader patent?” Dr. Alexander stated, “Yes, they are.” We find this generalized exchange, which failed to articulate how the Schrader Patent anticipated the other claims’ specific elements, to be a far cry from the “overwhelming amount of evidence” needed to require us to overturn the jury’s verdict. *See Id.*

There are several additional elements contained in the other claims, moreover, which a reasonable jury could find absent from the Schrader Patent. For example, dependent claims 3, 6, and 9 require that there be “software executing on said central computer for retrieving said data backup.” The Schrader Patent has not been shown to allow the financial institution to

⁸ It is unclear why Dr. Alexander did not mention claims 4 through 6, but it would not change the result if he had.

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retrieve the data previously sent to the user. Also, claims 1-9 require Internet-based data,⁹ which is not clearly disclosed by the Schrader Patent. While CPi argues that WhitServe's expert conceded that Schrader disclosed Internet-based data, what he actually said was that the "client computer get[s] the data from the financial institution computer system 'over a network.'" A jury reasonably could have concluded that the fact that data is transferred over the Internet does not automatically make it "Internet-based data" because, as disclosed in the '007 Patent, that element requires the ability to *modify* centrally stored data from across the Internet, rather than simply *sending* it across the Internet.¹⁰

⁹ For example, claim 1 of the '007 Patent recites:

A system for onsite backup of *internet-based data* comprising:
 a central computer;
 a client computer;
 a communications link between said central computer and the Internet;
 a communications link between said client computer and the Internet;
 at least one database containing a plurality of data records accessible by said central computer, each data record containing a client identification number;
 software executing on said central computer for receiving a data backup request from said client computer;
 software executing on said central computer for transmitting said data backup to said client computer for onsite backup of *internet-based data* on said client computer.

'007 Patent col. 3 ll. 30-44 (emphases added).

¹⁰ The '007 Patent describes an Internet-based data processing system in which a "client computer *executes software 20, residing on the data processing system 15*, for displaying, *updating*, and deleting data 12 stored on the central data processing system 15." '007 Patent col. 2 ll. 50-53 (emphases added). WhitServe's expert

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CPI also states that the '007 patent is rendered obvious by the Schrader patent. However, "an obviousness determination . . . is based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness." *Eli Lilly & Co. v. Teva Pharm. USA, Inc.*, 619 F.3d 1329, 1336 (Fed. Cir. 2010). Other than the cursory statement that data conversion and encryption were "well known" at the time of patenting by CPI's expert, CPI has not pointed to facts necessary for us to conclude that no reasonable jury could have found the rest of the '007 Patent's claims to be nonobvious. Therefore, while we conclude that claim 10 of the '007 Patent is invalid as anticipated, we find that substantial evidence supports the jury's verdict of no invalidity as to the remaining '007 Patent's claims.

C. Damages

CPI appeals the trial court's denial of its post-trial motions for JMOL or a new trial on damages on the grounds that the jury's \$8,378,145 damages award is not supported by substantial evidence and is, in fact, against the clear weight of the evidence. "When reviewing damages in patent cases, we apply regional circuit law to procedural issues and Federal Circuit law

accurately described Internet-based data as "[i]f you have data that you constructed and you send it to a central computer for further processing, Internet based data is that data that you created yourself, plus the data that gets created as a consequence of doing that processing on a server computer." He also agreed that a good definition is: "information that could be created on an application on the other side of the Internet from a client computer[.]"

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to substantive and procedural issues pertaining to patent law.” *Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1318 (Fed. Cir. 2010) (internal citations and quotation marks omitted). In the Second Circuit, “a district court may grant a new trial pursuant to [Federal Rules of Civil Procedure] Rule 59 even when there is evidence to support the jury’s verdict, so long as the court ‘determines that, in its independent judgment, the jury has reached a seriously erroneous result or its verdict is a miscarriage of justice.’” *AMW*, 584 F.3d at 456 (quoting *Nimely v. City of New York*, 414 F.3d 381, 392 (2d Cir. 2005)). Denial of a motion for a new trial is reviewed for abuse of discretion. *Id.* “The standard for ordering a new trial is therefore somewhat less stern than that for entering judgment as a matter of law, but our review of a district court’s disposition of a Rule motion is more deferential.” *Id.* “A district court abuses its discretion when its decision is based on clearly erroneous findings of fact, is based on erroneous interpretations of the law, or is clearly unreasonable, arbitrary or fanciful.” *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1460 (Fed. Cir. 1998) (en banc).

After CPi made its initial post-trial motions in this case, the trial court issued an order upholding the verdict. The only analysis it provided was that “[t]he court concludes that the \$8,378,145.00 jury verdict entered on May 25, 2010, is fair, just, and reasonable and adequately addresses all legal and equitable considerations.” It then dismissed as moot all post trial motions, including CPi’s motion regarding damages.

We have said that “[m]ost jury damages awards reviewed on appeal have been held to be supported by

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substantial evidence.” *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1336 (Fed. Cir. 2009). “Nonetheless, on post-trial JMOL motions, district court judges must scrutinize the evidence carefully to ensure that the ‘substantial evidence’ standard is satisfied, while keeping in mind that a reasonable royalty analysis ‘necessarily involves an element of approximation and uncertainty.’” *Id.* (quoting *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 517 (Fed. Cir. 1995)). The same rule requiring the trial court to scrutinize the evidence applies to motions for new trials. In this case, we believe that, had the trial court scrutinized the damages evidence properly, it would have concluded that the evidence did not support the award. Because the jury’s verdict lacked evidentiary support, we conclude that the trial court abused its discretion when it denied the motion for a new trial.

When a patent is infringed, the patentee is entitled to “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer.” 35 U.S.C. § 284. The patentee bears the burden of proving damages. *Lucent*, 580 F.3d at 1324. “Two alternative categories of infringement compensation are the patentee’s lost profits and the reasonable royalty he would have received through arms-length bargaining.” *Id.* If lost profits are not at issue, the reasonable royalty is the floor for damages. *Id.* The jury’s verdict form does not indicate how the award was calculated, whether it is a lump sum or running royalty, or whether it includes damages in addition to a reasonable royalty. At trial, both parties based their damage theories primarily on the 15 *Georgia-Pacific* factors, see *Georgia-Pacific Corp. v. U.S. Plywood Corp.*,

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318 F. Supp. 1116, 1120 (S.D.N.Y. 1970),¹¹ which are meant to provide a reasoned economic framework for a “hypothetical negotiation, . . . [which] attempts to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began.” *Lucent*, 580 F.3d at 1324.

¹¹ We have stated that the factors include:

(1) royalties the patentee has received for licensing the patent to others; (2) rates paid by the licensee for the use of comparable patents; (3) the nature and scope of the license (exclusive or nonexclusive, restricted or nonrestricted by territory or product type); (4) any established policies or marketing programs by the licensor to maintain its patent monopoly by not licensing others to use the invention or granting licenses under special conditions to maintain the monopoly; (5) the commercial relationship between the licensor and licensee, such as whether they are competitors; (6) the effect of selling the patented specialty in promoting sales of other products of the licensee; (7) the duration of the patent and license term; (8) the established profitability of the product made under the patent, including its commercial success and current popularity; (9) the utility and advantages of the patent property over old modes or devices; (10) the nature of the patented invention and the benefits to those who have used the invention; (11) the extent to which the infringer has used the invention and the value of that use; (12) the portion of profit or of the selling price that may be customary in that particular business to allow for use of the invention or analogous inventions; (13) the portion of the realizable profit that should be credited to the invention as opposed to its non-patented elements; (14) the opinion testimony of qualified experts; and (15) the results of a hypothetical negotiation between the licensor and licensee.

i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 853 n.3 (Fed. Cir. 2010), *aff'd*, 131 S. Ct. 2238 (2011).

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CPI's main arguments against the verdict concern the testimony by WhitServe's damages expert, Dr. Shapiro, and the closing argument made by WhitServe's counsel. It argues that WhitServe improperly relied on a "business-wide" damages theory that included non-infringing revenue and caused the royalty base relied upon by the jury to be inflated by several times. It also argues that WhitServe's damages expert's testimony can not support the verdict because the royalty rate upon which he based his reasonable royalty calculation is merely speculative, as is WhitServe's "other damages" theory based on the cost to develop CPI's systems. Finally, it argues that WhitServe's closing arguments were prejudicial and require a new trial because the trial court's correcting statements were insufficient to prevent the jury from being tainted by WhitServe's misstatements of law and fact.

In response, WhitServe proffers two main theories in support of the verdict. First, it argues that the lump sum licenses it presented at trial along with the *Georgia-Pacific* factors support Dr. Shapiro's royalty rate of 16-19%, which, when applied to \$42-43 million in infringing revenue yields a royalty of about \$8 million. Second, it argues that the jury may have awarded a reasonable royalty of about \$3 million and then increased the damages award based on "other damages" it felt WhitServe suffered. We find that neither theory supports the jury's verdict.

i. Reasonable Royalty

When a hypothetical negotiation would have yielded a running royalty, the classic way to determine the reasonable royalty amount is to multiply the royalty

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base, which represents the revenue generated by the infringement, by the royalty rate, which represents the percentage of revenue owed to the patentee. *See, e.g., Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1208 (Fed. Cir. 2010). In this case, CPi's expert stated that there were 1,036,877 accused infringing transactions. WhitServe adopted that number at trial and on appeal. Thus, the royalty base is equivalent to the revenue generated by those transactions, which equals 1,036,877 times the average transaction fee charged by CPi for transactions that infringe WhitServe's patents. There was a factual dispute over whether the average infringing service fee charged by CPi was \$15.69 or \$41. WhitServe's expert, Dr. Shapiro, had based his original calculations on the \$15.69 figure provided by CPi. Dr. Shapiro changed his opinion to incorporate the \$41 figure on the eve of trial, however. By multiplying \$41 by a little more than 1 million infringing transactions, WhitServe argues the infringing revenue base was \$42-43 million.

CPi argues that number is far too high because Dr. Shapiro came up with the number by dividing CPi's gross revenues by the total number of all transactions—including non-infringing transactions. It argues that including non-infringing transactions in the average fee calculation makes the revenue base unsupported by the evidence because it sweeps in non-infringing use, for which CPi says it charges higher fees. CPi's expert testified that the correct revenue base was about \$18 million. WhitServe argues that CPi stipulated to evidence supporting the jury's verdict in the form of its past financial data and that Dr. Shapiro properly used that information to determine that CPi's average infringing service fee was about \$41. We find that the

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jury was entitled to find that \$41 accurately represented the average service fee charged for infringing products.

In *Finjan*, the patentee's expert calculated the infringer's profit margin on accused products by using "company-wide, instead of product-specific, gross profits." 626 F.3d at 1209. The expert "explained to the jury that he found that the gross profit margin for the [accused] products was similar to the company-wide margin (both roughly 70%), so that 'the [accused] products . . . have a gross profit margin . . . that's close.'" *Id.* at 1209-10. We concluded that substantial evidence supported the award based on that profit margin because the expert "provided more than just a conclusory opinion, on which the jury was entitled to rely." *Id.* at 1210.

As in *Finjan*, we do not find reversible error in Dr. Shapiro's calculation of the average service fee because he explained that, as CPi automated more and more transactions, the average service fee remained the same over time. *See* J.A. 15667-68 (explaining that "one would expect a lower average service fee when the proportion of electronic transactions increased"). Non-infringing use, which commands a higher fee according to CPi, accounted for 97% of all transactions in 2003 but dropped to 60% in 2009 as CPi moved away from manual transactions and started conducting more automated transactions, using computers and the Internet. Dr. Shapiro explained that the average fee remained the same during that whole period, however. J.A. 15667. Thus, the jury was free to reason that the average fee would have decreased as the allegedly cheaper infringing transactions progressively made up a larger proportion of total transactions. Because that did

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not happen, it was reasonable to conclude that the infringing transactions were not, in fact, cheaper and that the average transaction fee is a fair approximation of the fee charged in the infringing transactions. See *Bluebonnet Sav. Bank, F.S.B. v. United States*, 266 F.3d 1348, 1355 (Fed. Cir. 2001) (explaining that damage calculations are not an exact science and “it is enough if the evidence adduced is sufficient to enable a court or jury to make a fair and reasonable approximation” (internal quotation marks and citations omitted)).

Although it would have been preferable to have broken the data down by specific transaction type, we do not find that Dr. Shapiro’s reasoning on this point was impermissible speculation. Instead, “vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 856 (Fed. Cir. 2010) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 596 (1993)), *aff’d*, 131 S. Ct. 2238 (2011). Here, CPi cross-examined Dr. Shapiro on the issue and presented contrary evidence.¹² The jury was entitled to believe that the

¹² CPi complains that Dr. Shapiro came up with his higher average transaction fee the night before he testified and presented the trial court with a conclusory expert report with no analysis and no citations to data. The trial court excluded the report after CPi objected but allowed Dr. Shapiro to testify as to his conclusion and permitted WhitServe to publish a chart including the information to the jury during closing. CPi states this information was inadmissible, prejudicial, and requires a new trial. Upon reviewing the trial transcript, it is unclear whether the trial court’s ruling should have prohibited Dr. Shapiro from testifying as to the higher amount. At one point, the judge said that “whatever was furnished to [CPi] is going to be excluded, and that includes the material

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average fee for the infringing transactions was about \$41. Thus, if there was evidence to support the corresponding royalty rate that would have yielded an \$8.3 million verdict, we could affirm.

We agree with CPi, however, that multiple errors in Dr. Shapiro's royalty rate calculation cause his ultimate opinion regarding a reasonable royalty rate to be speculative. Dr. Shapiro concluded that the royalty rate that would have resulted from a hypothetical negotiation between CPi and WhitServe was 16-19% of revenue. A 19% of revenue rate, if upheld, would support the jury's verdict because 19% of \$42-43 million is roughly \$8 million. WhitServe attempts to justify this royalty rate with several points of evidence.

First, it argues that the jury was presented with a royalty rate as high as 31.8% during Dr. Shapiro's testimony. That rate was based on a proposed, but unaccepted, license based on the greater of \$5 or 7% per transaction. Dr. Shapiro stated that \$5 divided by CPi's

that's on that slide, and it's got to be excluded." However, Dr. Shapiro was permitted to testify over objections. We review the admission of evidence under the standard of the law of the pertinent circuit, *Micro Chemical, Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1390-91 (Fed. Cir. 2003), which is abuse of discretion in this case. *United States v. Roberts*, 660 F.3d 149, 157 (2d Cir. 2011). It is difficult to tell if the trial court abused its discretion. Certainly, had CPi had more warning about Dr. Shapiro's proposed testimony, it may have more effectively countered it. On the other hand, the trial court was in the best position to evaluate the threat of prejudice, if any, from the late disclosure, and he chose to allow some aspects of it. Ultimately, we do not decide whether the trial court's admission of this testimony was erroneous because we have determined a new trial is warranted on other grounds. If it is admitted again on remand, CPi will have time to formulate its rebuttal.

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asserted average service fee of \$15.69 equals 31.8%. This evidence can not support the jury's verdict because it is based on fiction and contradicts Dr. Shapiro's other testimony. Basically, Dr. Shapiro took WhitServe's hypothetical value of \$5 and applied it to a \$15.69 value that he had already opined was incorrect. We acknowledge that proposed licenses may have some value for determining a reasonable royalty in certain situations. Their evidentiary value is limited, however, by, *inter alia*, the fact that patentees could artificially inflate the royalty rate by making outrageous offers. *See Deere & Co. v. Int'l Harvester Co.*, 710 F.2d 1551, 1557 (Fed. Cir. 1983) (upholding district court's decision to give little probative value to an offer to license).

In this case, the proposed offer and 31.8% rate have no probative value because Dr. Shapiro used the lower \$15.69 transaction fee amount to determine that \$5 represents 31.8% of the fee. Such an assertion is directly contrary to his argument in favor of a \$41 transaction fee. Dr. Shapiro can not have it both ways. He can not use \$41 to boost the royalty base and then use \$15.69 to boost the royalty rate. No reasonable juror could have credited both values. The 31.8% value is therefore based on pure conjecture and, like the 25% rule of thumb, is irrelevant. *See Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011) ("Gemini's starting point of a 25 percent royalty had no relation to the facts of the case, and as such, was arbitrary, unreliable, and irrelevant.") Had he divided \$5 by the higher \$41 fee he urged, the result would have been about 12%, significantly lower than the roughly 19% upon which WhitServe argues the verdict is based.

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Next, WhitServe cites to the two lump sum royalties it successfully negotiated with CPi competitors. WhitServe argues that the 19% royalty rate is supported by the fact that it secured two limited, lump-sum licenses, both approximately in the \$2-3 million range. WhitServe states those licenses were limited and based on little to no infringement, and, thus, justify an increased royalty rate. CPi counters that parties must use comparable patent licenses when determining reasonable royalty damages and that these were not comparable to what WhitServe sought at trial. In *Lucent*, we said that “[f]or a jury to use a running-royalty agreement as a basis to award lump sum damages . . . some basis for comparison must exist in the evidence presented to the jury.” 580 F.3d at 1330. In that case, the running royalties did not constitute substantial evidence in support of the verdict because “the jury had almost no testimony with which to recalculate in a meaningful way the value of any of the running royalty agreements to arrive at the lump-sum damages award.” *Id.* The converse of that rule applies here because lump sum payments similarly should not support running royalty rates without testimony explaining how they apply to the facts of the case.

In this case, Dr. Shapiro cited to the two lump sum payments as evidence to support an increased royalty rate under *Georgia-Pacific*, but did not offer any testimony to explain how those payments could be converted to a royalty rate. He is correct to state that those payments support a “higher” rate, but he offered no explanation of how much the rate should have been

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increased.¹³ As in *Lucent*, “we therefore can not understand how the jury could have adequately evaluated the probative value of those agreements.” 580 F.3d at 1328. Thus, to the extent WhitServe argues the award is based on a running royalty, the lump-sum agreements are not substantial evidence in support of the jury’s verdict. Additionally, even if the award is meant to be a lump sum, which it does not appear to be, we note the jury’s verdict of \$8.3 million was over 3 times the average of the lump sum licenses presented. As in *Lucent*, where the award was a multiple of the average license amounts presented, here, there is “little evidentiary basis under *Georgia-Pacific* Factor 2 for awarding roughly three to four times the average amount in the lump-sum agreements in evidence.” 580 F.3d at 1332.

WhitServe also argues that the *Georgia-Pacific* factors support the 19% rate. As the starting point of his analysis, Dr. Shapiro used the now discarded rule of thumb that assumes the patentee would get about 25% of the infringer’s expected profit had they reached an agreement before infringement began.¹⁴ See *Uniloc*, 632

¹³ In contrast, CPI’s expert, Mr. Tate, explained how he converted one of the lump-sum payments into what he called an effective royalty rate of 1.3% by dividing the license fee by the revenue generated by accused infringing sales.

¹⁴ We do not reverse based on the 25% rule, which we have held to be inadmissible under *Daubert*, because we announced that new rule of evidence after trial. See *Landgraf v. USI Film Prods.*, 511 U.S. 244, 275 n.29 (1994) (assuming that “a new rule of evidence would not require an appellate remand for a new trial”). Additionally, neither party objected to its use at trial and the trial court was under no obligation to exclude the use of the 25% rule. See *Lucent*, 580 F.3d at 1325 (explaining that when neither party objected to the evidence and the trial judge had “no independent mandate to

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F.3d at 1315 (“Evidence relying on the 25 percent rule of thumb is . . . inadmissible under *Daubert* and the Federal Rules of Evidence, because it fails to tie a reasonable royalty base to the facts of the case at issue.”). He testified that, starting at the 25% figure, it is appropriate to adjust the rate up or down using the *Georgia-Pacific* factors. He did not explain how much each factor affected the rate,¹⁵ however, and he testified that almost all factors justified an increase in the applicable rate, a few were neutral in terms of their impact, and none justified a decreased rate. This type of superficial recitation of the *Georgia-Pacific* factors, followed by conclusory remarks, can not support the jury’s verdict.

We do not require that witnesses use any or all of the *Georgia-Pacific* factors when testifying about damages in patent cases. If they choose to use them,

exclude” the evidence we must accept that it was properly before the jury). In fact, unlike in *Uniloc*, where Microsoft challenged its use, *both parties* used the 25% rule in this case. See 632 F.3d at 1312. On remand, use of the 25% rule should be revisited in light of *Uniloc*.

¹⁵ For example, we note the entire discussion of factors 9 and 13, which is representative of all of Dr. Shapiro’s testimony, was:

Q: And here you have a slide showing the analysis of the ninth and thirteenth factors, and if you could please explain what those factors are about and how you applied them in this case?

A: Yes. The ninth factor refers to the advantages of a patented product over the old method. 13 refers to the portion of the profit due to the invention. Basically there’s a whole host of CPi internal documents that discuss the disadvantages of the old paper-based process prior to 2002, and that would also support a higher royalty rate.

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however, reciting each factor and making a conclusory remark about its impact on the damages calculation before moving on does no more than tell the jury what factors a damages analysis could take into consideration. *See Lucent*, 580 F.3d at 1329 (explaining that a “damages award cannot stand solely on evidence which amounts to little more than a recitation of royalty numbers” and jurors cannot rely on “superficial testimony” with “no analysis”). Expert witnesses should concentrate on *fully* analyzing the *applicable* factors, not cursorily reciting all fifteen. And, while mathematical precision is not required, some explanation of both why and generally to what extent the particular factor impacts the royalty calculation is needed. We believe that Dr. Shapiro’s testimony and the arguments premised thereon encouraged the jury to reach a purely speculative judgment.

After his generalized discussion of the *Georgia-Pacific* factors, Dr. Shapiro concluded his testimony by opining on the results of a hypothetical negotiation between the parties. He testified:

There’s two steps in a reasonable royalty calculation. One is to determine the royalty base, which are the revenues upon which the royalty rate is applied. The second step is the royalty rate itself. And multiplying the royalty rate by the ... royalty base results in the reasonable royalty damages. And in this matter, what I used as a royalty rate was 16 percent for any ... revenues earned prior to 2008 [and] a 19 percent royalty for any revenues from 2008 up to the present.

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Dr. Shapiro did not actually state the royalty base he used or the final reasonable royalty amount he thought was reasonable, but WhitServe's attorney directed the jury's attention to a demonstrative:

Q: Thank you, Dr. Shapiro—oh, I'm sorry. Dr. Shapiro, this is a chart that summarizes CPi's overall revenue and gross profits from the years 2005 to 2009, and do you believe that the damages that you've associated with CPi are reasonable in view of these numbers?

A: Yes.

After reviewing his testimony, we are left with the unmistakable conclusion that the jury heard that Dr. Shapiro started at 25% of *profit* and adjusted that rate "up." He then announced that the appropriate royalty rate in this case is 16-19% of *revenue*. The record contains no evidence regarding CPi's expected profit margins that would explain how Dr. Shapiro converted a percent of profit royalty rate into one applied to a percent of revenue. Without some guideposts, the task of determining a reasonable royalty under 35 U.S.C. § 284 is impossible. "The law does not require an expert to convey all his knowledge to the jury . . ." *Lucent*, 580 F.3d at 1329. But we have also said that "superficial testimony" and the simple recitation of royalty numbers that happen to be in the ballpark of the jury's award will not support the jury's award when no analysis is offered to the jury which would allow them to evaluate the probative value of those numbers. *See id.*

When asked during oral argument where in the record we could find an explanation for Dr. Shapiro's

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shift from a percentage of profits to a percentage of revenue, WhitServe's counsel responded that he could not recall the number his own witness came up with but "the record is complete with his analysis of what the profit margin is." Oral Arg. at 27:18-27:40. It may be, but we could not find it.¹⁶ CPI's expert did testify to CPI's profit margins, asserting that the profit margin was 21.9% for all transactions between 2002 and 2007 and 26.3% for infringing transactions conducted between 2002 and 2010. If these numbers are accurate, a 19% of revenue royalty represents between 86.75% and 72.24% of CPI's profit.¹⁷ Thus, we must assume Dr. Shapiro started at 25% of profit and somehow arrived at a royalty amount that accounted for about three quarters of CPI's profits. After reviewing Dr. Shapiro's bare-bones *Georgia-Pacific* analysis, these amounts do not appear to be supported anywhere in the evidence. Therefore, we do not believe the jurors would have been able to determine whether such an amount is "reasonable." See *Lucent*, 580 F.3d at 1330 (explaining that a past royalty amount of \$2.00 per unit is "difficult, if not impossible, to evaluate" without any testimony on the price of the product). Thus, the royalty rate

¹⁶ Much of Dr. Shapiro's testimony consists of his references to demonstrative charts shown to the jury, but without explanation or even recitation of the numbers presented therein. It is possible that useful information was on the charts, but they are not before us or even referenced by WhitServe. Additionally, we are aware that the trial judge excluded much of Dr. Shapiro's damages report. The record and briefs are silent on which charts were excluded and which went to the jury. When parties rely on demonstratives to present evidence or mathematical calculations to the jury, it is their burden to assure that the record captures the substance of the data so presented. We can not guess at what the jury saw.

¹⁷ $19/21.9 = 86.75\%$ and $19/26.3 = 72.24\%$.

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suggested by Dr. Shapiro does not support the verdict because his testimony is conclusory, speculative and, frankly, out of line with economic reality.

WhitServe next argues that perhaps the jury awarded a lower reasonable royalty and added in several million dollars of “other damages.” We find that the “other damages” to which WhitServe refers have no relationship to the harm caused by CPi and also can not support the verdict.

ii. “Other Damages”

WhitServe first argues that, because CPi spent \$5-10 million developing the infringing systems, \$5-10 million could be added to the award to help WhitServe “overcome the competitive harm and market distortion caused by CPi’s infringement.” Cross-Appellant’s Br. 45. While CPi’s development costs might be relevant to a hypothetical licensing negotiation, there is no justification for an award that adds those costs on top of a running royalty based verdict. 35 U.S.C. § 284 requires that patentees be compensated for the infringement, not that their entry into the industry be fully financed. *See* 35 U.S.C. § 284. WhitServe next mentions “sticky customers,” but points to no evidence to quantify how inertia has harmed WhitServe. Finally, WhitServe argues that the jury could have awarded a reasonable royalty of an unknown amount and added “other” damages in accordance with *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1108 (Fed. Cir. 1996), and various district court cases that have upheld jury awards made up of a reasonable royalty plus other damages. We agree that the jury is entitled to award compensatory damages in addition to a reasonable royalty because a reasonable

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royalty is “merely the floor below which damages shall not fall.” *Bandag, Inc. v. Gerrard Tire Co.*, 704 F.2d 1578, 1583 (Fed. Cir. 1983). Patentees bear the burden of proving such damages, however and, here, there is no evidence to support a higher award.

In *Maxwell*, we upheld a jury award which expressly included \$.05 per pair of shoes plus other damages amounting to about \$.10 per pair, because it was supported by evidence of a \$.10 per pair royalty. 86 F.3d at 1110 (“Thus, the jury did not arbitrarily increase the award of damages. Instead, the jury’s verdict reflects the actual damages sustained by Maxwell . . .”). WhitServe has not demonstrated lost sales, diminished royalty rates, or other compensable damages. Therefore, any additional damages would be speculative and the damages do not fall “within the range encompassed by the record as a whole.” *Unisplay*, 69 F.3d at 519.

We find that the jury’s damages award—whether characterized as a reasonable royalty or “other damages”—must be the result of sheer surmise and conjecture, “divorced from proof of economic harm linked to the claimed invention and . . . inconsistent with sound damages jurisprudence” *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 868 (Fed. Cir. 2010). We find, therefore, that the trial court abused its discretion when it failed to grant CPi a new trial on damages. *See AMW*, 584 F.3d at 456 (stating a new trial can be granted when the verdict is seriously erroneous). We vacate the award and remand for a new trial on damages.¹⁸

¹⁸ CPi also urged a new trial because WhitServe made an impermissible emotional plea to the jury during closing arguments that was not sufficiently corrected by the trial court. *See Marcic v.*

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II. WhitServe's Cross-Appeal

WhitServe has cross-appealed, asserting that the district court improperly denied its requests for a permanent injunction, compulsory license, prejudgment interest, enhanced damages, attorneys' fees, and a post-trial accounting. As noted above, the trial court addressed each motion only briefly. The trial court denied WhitServe's request for a permanent injunction in one page—stating that, because WhitServe had failed to establish irreparable harm from ongoing infringement, no injunction should issue. WhitServe's motion for an accounting was denied as moot without explanation. WhitServe's other motions were all originally denied as “moot” in light of the court's order

Reinauer Transp. Cos., 397 F.3d 120, 124 (2d Cir. 2005) (“A party is generally entitled to a new trial if the district court committed errors that were a clear abuse of discretion that were clearly prejudicial to the outcome of the trial.” (internal citations and quotation marks omitted)). During closing, WhitServe stated that “according to the law,” the jury could add \$5-10 million to the award as “compensation for the four years of hell” resulting from the litigation. It is beyond debate that juries may not award litigation costs or punish infringers. *See Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1581 (Fed. Cir. 1996) (forbidding a “kicker” for heavy litigation expenses on top of a reasonable royalty); *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1223 (Fed. Cir. 1995) (“[T]he purpose of compensatory damages is not to punish the infringer, but to make the patentee whole.” (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964))). Because there are separate grounds for remand, we do not decide whether the trial court's correcting statements, which did not clearly indicate that WhitServe was not entitled to “compensation” for “four years of hell,” were sufficient to prevent undue prejudice to CPI from this impermissible argument. On remand, we trust that the trial court will ensure such blatantly improper statements are not repeated.

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finding that the jury award “adequately addressed all equitable and legal considerations.” When WhitServe sought reconsideration and argued that its motions were not moot, the court denied the post-trial motions on the merits. Again, the court premised its ruling solely on its view that the “damages awarded in favor of the plaintiff on May 25, 2011(sic) constituted complete compensation with respect to this matter.” *WhitServe LLC v. Computer Packages, Inc.*, No. 06-CV-01935, slip op. at 1 (D. Conn. May 5, 2011) (“WhitServe’s Motion for Reconsideration as to Motions Denied as Moot”) (ECF No. 488).

The trial court’s treatment of the challenged post-trial motions was inadequate. The trial court’s order denying those motions is vacated and the motions are remanded for consideration in light of governing legal principles and consideration of the charge upon which the jury verdict in favor of the plaintiff was premised.

A. Relief for Ongoing Infringement

WhitServe first cross-appeals the trial court’s refusal to provide any relief for CPi’s ongoing infringement of its patents. Specifically, WhitServe argues it was an abuse of discretion for the trial court to deny its request for either a permanent injunction or an ongoing royalty and leave it uncompensated for future acts of infringement by CPi except via resort to serial litigation. CPi responds that the trial court properly refused to enjoin its infringement because WhitServe failed to establish it would suffer irreparable harm and that WhitServe was effectively granted prospective relief in the form of a paid-up license so no forward-looking relief was necessary.

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There are several types of relief for ongoing infringement that a court can consider: (1) it can grant an injunction; (2) it can order the parties to attempt to negotiate terms for future use of the invention; (3) it can grant an ongoing royalty; or (4) it can exercise its discretion to conclude that no forward-looking relief is appropriate in the circumstances. *See Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1379 (Fed. Cir. 2010) (“If the district court determines that a permanent injunction is not warranted, the district court may, and is encouraged, to allow the parties to negotiate a license.”); *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1314-15 (Fed. Cir. 2007) (“[A]warding an ongoing royalty where ‘necessary’ to effectuate a remedy . . . does not justify the provision of such relief as a matter of course whenever a permanent injunction is not imposed.”).

All of these decisions are reviewed for abuse of discretion. *See, e.g., eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006) (“The decision to grant or deny permanent injunctive relief is an act of equitable discretion by the district court, reviewable on appeal for abuse of discretion.”); *Telcordia*, 612 F.3d at 1379 (“[T]he district court did not abuse its discretion by directing the parties to negotiate the terms of the appropriate royalty.”); *Paice*, 504 F.3d at 1315 (“[T]his court is unable to determine whether the district court abused its discretion in setting the ongoing royalty rate.”). Even under this highly deferential standard of review, we find the trial court’s treatment of the questions of prospective relief inadequate. Accordingly, we remand for further consideration of WhitServe’s alternative motions for a prospective remedy.

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Preliminarily, we can not accept CPI's suggestion that a paid-up license was awarded. Although the jury heard evidence of two lump-sum licenses WhitServe had previously granted, the parties limited their damages arguments to past infringement rather than projected future infringement. The jury was instructed to award "damages," which by definition covers only past harm. The jury's verdict did not indicate that the award was meant to cover future use of WhitServe's patents, and the trial court did not interpret the award as such. *See Telcordia*, 612 F.3d at 1377-78 (Fed. Cir. 2010) (explaining trial courts have discretion to interpret verdict forms). We, accordingly, decline to find that post-trial relief was properly denied because a paid-up license was awarded. *Cf. Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1380-81 (Fed. Cir. 2008) (holding that injunctive relief was unwarranted when the jury's award already included prospective relief).

As for the injunction, while the trial court stated that WhitServe had failed to establish irreparable harm, it did not explain why it reached that conclusion. For instance, the trial court did not address WhitServe's contention that it was a direct competitor in the market via its subsidiary, NetDocket, nor discuss whether monetary damages were alternatively available and adequate to address the forward-looking harm, if any, WhitServe might suffer. From such a record, it is impossible to conclude that the trial court properly exercised its discretion to assess whether injunctive relief is appropriate. While injunctive relief may very

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well not be appropriate on these facts, we simply can not tell on this record.¹⁹

The record regarding the trial court's refusal to award a compulsory license is even more sparse; the trial court never even addressed it. While this may be because WhitServe apparently first requested this relief in its reply in support of its motion for permanent injunction, the record, again, does not allow us to draw that conclusion. In *Paice*, we explained that a trial court's failure to explain the basis for its ongoing royalty rate precludes this court from reviewing the decision for an abuse of discretion, and thus, that remand was appropriate so the trial court could give some "indication as to why that rate is appropriate." *See* 504 F.3d at 1315 (trial court's failure to explain reasons for its decision regarding ongoing royalty prevents meaningful appellate review). While a trial court is not required to grant a compulsory license even when an injunction is denied, the court must adequately explain why it chooses to deny this alternative relief when it does so.

We, therefore, vacate and remand this matter and direct the trial court to address the propriety of prospective relief and to explain any decision it makes with respect thereto. Of course, this decision must be

¹⁹ We note, moreover, that the trial court did not address any of the other factors relevant to the equitable analysis it generally is to employ when assessing the propriety of injunction relief. *See eBay*, 547 U.S. at 391 (explaining that "a plaintiff seeking a permanent injunction must satisfy a four-factor test"). For instance, as WhitServe argues, while there was considerable evidence that CPI had substantial non-infringing products in its portfolio, the trial court did not consider whether the possible absence of harm to CPI might weigh in favor of an injunction.

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made in light of both any new damages award and all relevant equitable considerations.

B. Prejudgment Interest

WhitServe also cross-appeals the trial court's denial of its motion for prejudgment interest. "This court reviews a district court's denial of prejudgment interest for an abuse of discretion." *Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l, Inc.*, 246 F.3d 1336, 1346 (Fed. Cir. 2001). As a rule, "prejudgment interest should be awarded under [35 U.S.C. § 284] absent some justification for withholding such an award." *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 657 (1983). An award of prejudgment interest carries out Congress's "overriding purpose of affording patent owners complete compensation" since a patentee's damages also include the "forgone use of the money between the time of infringement and the date of judgment." *Id.* at 655-56.

When the trial court denied the request for prejudgment interest, it stated that "an award of prejudgment interest is not necessary as the jury's \$8,378,145.00 award is adequate to compensate for the defendant's infringement on the plaintiffs patents." District courts are given broad discretion to interpret verdict forms. *See Telcordia*, 612 F.3d at 1377-78. In this case, however, the judge specifically instructed the jury that they may "not award any interest on any damages." The jury's award could not, accordingly, constitute compensation for interest and the trial court abused its discretion in denying prejudgment interest without further analysis or justification. *See Devex*, 461 U.S. at 655 (explaining prejudgment interest is "necessary to ensure that the patent owner is placed in as good a

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position as he would have been in had the infringer entered into a reasonable royalty agreement"). The denial is vacated and remanded for a determination of whether prejudgment interest is warranted in light of any new damages award and, if deemed not warranted, for a full explanation as to why.

C. Enhanced Damages

WhitServe next cross-appeals the district court's denial of enhanced damages and attorneys' fees despite the jury's finding of willful infringement. As with the other motions we now consider, the district court denied as "moot" WhitServe's motion for enhanced damages, and, on reconsideration, denied them on grounds that the verdict constituted "complete compensation." "The district court's decision on whether to enhance damages is reviewed for abuse of discretion, that is, whether the decision was based on clearly erroneous findings of fact, an incorrect conclusion of law, or a clear error of judgment." *Spectralytics, Inc. v. Cordis Corp.*, 649 F.3d 1336, 1347 (Fed. Cir. 2011).

The decision whether to grant enhanced damages as allowed under 35 U.S.C. § 284 requires a two-step process. *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996). "First, the fact-finder must determine whether an infringer is guilty of conduct upon which increased damages may be based. If so, the court then determines, exercising its sound discretion, whether, and to what extent, to increase the damages award given the totality of the circumstances." *Id.* "An act of willful infringement satisfies th[e] culpability requirement and is, without doubt, sufficient to meet the first requirement to increase a compensatory damages

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award.” *Id.* (citing *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 826-27 (Fed. Cir. 1992), *superseded on other grounds as recognized by Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 F.3d 1575 (Fed. Cir. 1996)).

The jury found CPI’s infringement to be willful, and CPI has not appealed that finding. “Upon a finding of willful infringement, a trial court should provide reasons for not increasing a damages award or for not finding a case exceptional for the purpose of awarding attorneys fees.” *Id.* at 1572. In this case, the only reason provided for not increasing the award was that the jury’s verdict constituted “complete compensation.” Enhanced damages, however, are punitive, not compensatory, and can be awarded only in the judge’s discretion. *Id.* at 1570; *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1274 (Fed. Cir. 1999). Additionally, the judge explicitly told the jury that they “may not add anything to the amount of damages to punish the accused infringer or to set an example.” Thus, the jury’s verdict did not, and properly can not, include enhanced damages. We find, therefore, that the trial court abused its discretion in denying the motion for enhanced damages without independent justification; we remand the issue for a determination of whether enhanced damages are warranted and an explanation of the grounds for that determination.

D. Attorneys’ Fees

WhitServe cross-appeals the trial court’s denial of its attorneys’ fees. “The court in exceptional cases may award reasonable attorney fees to the prevailing party.” 35 U.S.C. § 285. “Although an attorney fee award is not mandatory when willful infringement has been found,

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precedent establishes that the court should explain its decision not to award attorney fees.” *Spectralytics*, 649 F.3d at 1349. As in *Spectralytics*,

the district court did not separately analyze the attorney fee issue, but denied attorney fees in conjunction with denial of enhanced damages. Indeed, similar considerations may be relevant to both enhanced damages and attorney fees. However, the situations in which § 284 and § 285 may be invoked are not identical. For example, attorney misconduct or other aggravation of the litigation process may weigh heavily with respect to attorney fees, but not for enhancement of damages.

Id. (internal citations omitted). Therefore, the trial court abused its discretion by failing to explain why attorneys’ fees were unwarranted and the issue is remanded for a proper determination.

E. Post-Trial Accounting

Finally, WhitServe appeals the denial of a post-trial accounting. “[W]hen damages are not found by a jury, the court *shall* assess them.” 35 U.S.C. § 284 (emphasis added). District courts have discretion to award damages for periods of infringement not considered by the jury. *See Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 582 F.3d 1288, 1303 (Fed. Cir. 2009) (holding that “the district court was within its discretion to impose a royalty on [post-verdict sales not considered by the jury] in order to fully compensate” the patentee); *Finjan*, 626 F.3d at 1212-13 (explaining that the trial court erred when it did not award damages for the time

between entry of judgment and entry of an injunction because otherwise the patentee would not be fully compensated); *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335, 1353 n.5 (Fed. Cir. 2009), *modified in part by Ecolab, Inc. v. FMC Corp.*, 366 Fed. App'x 154, 155 (Fed. Cir. 2009) (stating that an accounting should be ordered in order to adequately compensate the plaintiff). Whit-Serve states that the jury's verdict "was based on financial data up to March 31, 2010, and therefore does not include compensatory damages for CPI's infringement after this date." CPI argues that the jury's award was a paid-up license and no accounting is necessary.

"District courts have broad discretion to interpret an ambiguous verdict form, because district courts witness and participate directly in the jury trial process." *Telcordia*, 612 F.3d at 1378. Here, however, not only did the trial court not exercise its discretion under *Telcordia* and find that the jury award included a paid-up license for post-verdict conduct, but we have already found that nothing in the record would support such a conclusion. Much like prejudgment interest, therefore, the trial court abused its discretion when it failed to award, or explain its reasons for denying, damages for the period between the jury's verdict and judgment. Accordingly, we vacate and remand this ruling. While we would normally direct an accounting of damages flowing from post-verdict and pre-judgment infringement, our decision to vacate the damages award and order a new trial would make such an accounting premature. On remand, the trial court shall give due

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consideration to any request for an accounting following a new damages verdict.²⁰

III. Whitmyer's Cross-Appeal

In his separate cross-appeal, Whitmyer claims the court erred in not awarding fees under 35 U.S.C. § 285 or sanctions under Federal Rule of Civil Procedure 11. A district court's Rule 11 determination is reviewed for an abuse of discretion. *Antonious v. Spalding & Evenflo Cos., Inc.*, 275 F.3d 1066, 1072 (Fed. Cir. 2002). A fee award under 35 U.S.C. § 285 first requires a finding that the case was exceptional. *Forest Labs., Inc. v. Abbott Labs.*, 339 F.3d 1324, 1327 (Fed. Cir. 2003). Whitmyer asked for sanctions and fees against CPi because CPi allegedly engaged in "vexatious" litigation. The trial court denied the motion because Whitmyer "failed to set forth facts warranting such relief."

On appeal, Whitmyer complains that CPi filed a declaratory judgment against him in his personal capacity and deposed him 5 times for a total of 17 hours. CPi states that Whitmyer was deposed in his personal capacity as the sole principal of WhitServe and NetDocket and as a member of the St. Onge law firm, which is Net-Docket's sole client and is representing Whitmyer in this matter. CPi also argues that, because WhitServe's only assets are the patents, it was justified in counterclaiming against him personally in order to pierce the corporate veil and recover its fees. It also points out that Whitmyer never filed, or withdrew, any

²⁰ WhitServe asks the court to fix damages for the period of time between March 31, 2010 and trial. This request is moot in light of the remand for a new damages trial.

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motions that argued that CPi failed to plead sufficient claims against Whitmyer, and thereby conceded that CPi was not acting vexatiously. While CPi's claims against Whitmyer are certainly questionable, including its original designation of him as a "counterclaim defendant," after reviewing Whitmyer's motion for fees and sanctions, as well as his truncated briefing on the issue, we decline to find an abuse of discretion in the court's denial of sanctions. We also find that the court did not err in concluding that the case was not exceptional. Therefore, the trial court's denial of Whitmyer's request for fees and sanctions is affirmed.

SUMMARY

- 1) The jury verdict of infringement is affirmed with regard to the valid claims.
- 2) The jury verdict finding the '007 patent to be not anticipated by the Schrader Patent is affirmed in part. The jury's verdict regarding claim 10 of the '007 is reversed because that claim is invalid as anticipated by the Schrader Patent.
- 3) The jury's damages award is vacated and remanded for a new trial.
- 4) The trial court's holdings regarding WhitServe's post-trial motions for a permanent injunction, compulsory license, prejudgment interest, enhanced damages, attorneys' fees, and a post-trial accounting are vacated and remanded.

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5) The trial court's denial of Whitmyer's request for sanctions and fees is affirmed.

**AFFIRMED-IN-PART, REVERSED-IN-PART,
VACATED-IN-PART, AND REMANDED.**

COSTS

No costs.

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UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

WHITSERVE, LLC,
Plaintiff/Counterclaim Defendant-Cross Appellant,

and

WESLEY W. WHITMYER, JR.,
Third Party Defendant-Cross Appellant,

v.

COMPUTER PACKAGES, INC.,
Defendant/Counterclaim Plaintiff-Appellant.

2011-1206, -1261

Appeals from the United States District Court for the
District of Connecticut in case no. 06-CV-1935, Judge
Alfred V. Covello.

Mayer, *Circuit Judge*, dissenting.

I respectfully dissent. There can be no infringement of U.S. Patent Nos. 5,895,468, 6,049,801 and 6,182,078 (collectively the “WhitServe patents”) because they are invalid. The WhitServe patents are “barred at the threshold by [35 U.S.C.] § 101,” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981), because they are directed to the abstract idea that it is useful to provide people with reminders of approaching due dates and deadlines. See *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1303 (2012) (explaining that section 101 performs a vital “screening function”); *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010) (noting that whether claims

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are directed to statutory subject matter is a “threshold test”).

I.

In *Bilski*, the Supreme Court rejected an application because it did not “add” anything to the otherwise abstract idea of minimizing economic risk. 130 S. Ct. at 3231. The claimed method failed to meet section 101’s eligibility requirements because it simply described the idea of hedging against economic risk and applied it using “familiar statistical approaches” and “well-known random analysis techniques.” *Id.* at 3224, 3231. In *Mayo*, likewise, process claims were invalidated under section 101 because they merely described a law of nature and applied it using “well-understood, routine, [and] conventional” means. 132 S. Ct. at 1294.

A similar analysis applies here. Prior to the “invention” disclosed in the WhitServe patents, attorneys and other professionals used manual docketing systems to keep track of upcoming deadlines for their clients. *See* U.S. Patent No. 5,895,468 col. 1 ll. 10-57. These manual docketing systems were inefficient and time-consuming because they required an attorney or other professional to “examin[e] a calendar periodically to notice upcoming deadlines,” and to “send [a client] multiple reminders if necessary.” *Id.* col. 1 ll. 38-41. “Another disadvantage” of these docketing systems was that they did “not employ modern computer communications media, such as the Internet.” *Id.* col. 1 ll. 54-56. The WhitServe patents purport to solve these problems by disclosing the use of general purpose computers and the Internet to keep track of upcoming client deadlines and to generate client reminders that such deadlines are approaching. *See id.*

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col. 2 ll. 21-22 (explaining that the claimed system “automatically prepares reminders . . . for client due dates”); *see also id.* col. 2 ll. 24-25 (stating that the system “transmits reminders” of client due dates “over the Internet”).

Because the WhitServe patents simply describe a basic and widely-understood concept—that it is useful to provide people with reminders of important due dates and deadlines—and then apply that concept using conventional computer technology and the Internet, they fail to meet section 101’s subject matter eligibility requirements. “While running a particular process on a computer undeniably improves efficiency and accuracy, cloaking an otherwise abstract idea in the guise of a computer-implemented claim is insufficient to bring it within section 101.” *MySpace, Inc. v. Graphon Corp.*, 672 F.3d 1250, 1267 (Fed. Cir. 2012) (Mayer, J., dissenting) (footnote omitted); *see Bancorp Servs., LLC v. Sun Life Assurance Co.*, 687 F.3d 1266 (Fed. Cir. 2012) (concluding that claims directed to a computerized method of managing a stable value protected life insurance policy fell outside section 101); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) (holding that claims drawn to a method of applying for credit did not satisfy section 101, notwithstanding the fact that they contained a limitation requiring the invention to be “computer aided”); *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1323 (Fed. Cir. 2012) (concluding that claims which recited “using a computer” in implementing an otherwise abstract investment idea were patent-ineligible); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (emphasizing “that the basic character of a process claim drawn to an abstract idea is not changed

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by claiming only its performance by computers, or by claiming the process embodied in program instructions on a computer readable medium”).

“[L]imiting an abstract idea to one field of use or adding token postsolution components [does] not make the concept patentable.” *Bilski*, 130 S. Ct. at 3231. Accordingly, the fact that the claimed system is arguably limited to communications between attorneys and other professionals and their clients is insufficient to bring it within the ambit of section 101. Likewise, the fact that the WhitServe patents contain both method and apparatus claims is insufficient to render them patent-eligible. *See Bancorp*, 687 F.3d at 1277 (“[T]he district court correctly treated the asserted system and medium claims as no different from the asserted method claims for patent eligibility purposes.”); *CLS Bank Int’l v. Alice Corp.*, 685 F.3d 1341, 1353 (Fed. Cir. 2012) (“Because mere computer implementation cannot render an otherwise abstract idea patent eligible, the analysis . . . must consider whether the asserted claims (method, system, and media) are substantively directed to nothing more than a fundamental truth or disembodied concept . . .” (citations omitted)). When assessing whether method or apparatus claims meet the requirements of section 101, patent eligibility does not “depend simply on the draftsman’s art.” *Parker v. Flook*, 437 U.S. 584, 593 (1978).

Because the patent system is designed to promote “the public disclosure of new and useful advances in technology,” *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998), the section 101 analysis turns on whether the claims disclose some new technology or “inventive concept,” *Mayo*, 132 S. Ct. at 1294, for applying an abstract

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idea or law of nature. Section 101's prerequisites cannot be satisfied where, as here, a patentee simply describes a well-known concept and applies it using conventional computer technology and the Internet. *See Mayo*, 132 S. Ct. at 1302 (concluding that a process for calibrating the proper dosage of thiopurine drugs fell outside section 101 because it "add[ed] nothing of significance" to the application of a law of nature).

II.

"[A] court may consider an issue antecedent to . . . and ultimately dispositive of the dispute before it, even an issue the parties fail to identify and brief." *See U.S. Nat'l Bank v. Indep. Ins. Agents*, 508 U.S. 439, 447 (1993) (citations and internal quotation marks omitted). It is appropriate to take up an issue not specifically raised by the parties where there have been significant changes in applicable law since the trial court's decision. *See Hormel v. Helvering*, 312 U.S. 552, 558 (1941); *see also Kamen v. Kemper Fin. Servs., Inc.*, 500 U.S. 90, 99 (1991) ("When an issue or claim is properly before the court, the court is not limited to the particular legal theories advanced by the parties, but rather retains the independent power to identify and apply the proper construction of governing law.").

When it was before the trial court, Computer Packages, Inc. ("CPi") unsuccessfully sought to obtain a declaratory judgment that the WhitServe patents were invalid under section 101. *See Joint App'x 136, 142.* Although CPi did not include a discussion of section 101 when it filed its appeal briefs here, we can take it up because the Supreme Court's *Mayo* decision, which issued after CPi's briefs were filed, makes clear that the

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WhitServe patents disclose no “inventive concept,” 132 S. Ct. at 1294, that would even arguably confer patent eligibility. See *Forshey v. Principi*, 284 F.3d 1335, 1356 (Fed. Cir. 2002) (en banc) (“[D]ecision of an issue not decided or raised below is permitted when there is a change in the jurisprudence of the reviewing court or the Supreme Court after consideration of the case by the lower court.”). The majority errs in refusing to address the question of whether the WhitServe patents meet section 101’s eligibility requirements and in requiring CPI to return to the trial court to relitigate the appropriate measure of damages for its alleged infringement of plainly invalid claims. See *Bradley v. Sch. Bd. of Richmond*, 416 U.S. 696, 711 (1974) (“[A] court is to apply the law in effect at the time it renders its decision, unless doing so would result in manifest injustice or there is statutory direction or legislative history to the contrary.”); *Hormel*, 312 U.S. at 557 (“Rules of practice and procedure are devised to promote the ends of justice, not to defeat them. A rigid and undeviating judicially declared practice under which courts of review would invariably and under all circumstances decline to consider all questions which had not previously been specifically urged would be out of harmony with this policy.”).

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APPENDIX B

Filed June 29, 2010

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

WHITSERVE, LLC,
Plaintiff,

v.

COMPUTER PACKAGES, INC.,
Defendant.

Civil No. 3:06CV1935(AVC)

JUDGMENT

This action having come before the Court for a trial by jury before the Honorable Alfred V. Covello, United States District Judge presiding, and the issues having been duly tried and the jury having rendered its verdict in favor of the plaintiff, it is therefore

ORDERED, ADJUDGED and DECREED that judgment be and is hereby rendered in favor of the plaintiff, in the amount of \$8,378,145.00 for compensatory damages.

Dated at Hartford, Connecticut, this 29th day of June, 2010.

ROBIN TABORA, CLERK

By: s/
Renee Alexander, Deputy Clerk

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APPENDIX C

Filed January 14, 2011

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

WHITSERVE, LLC,
Plaintiff,

v.

COMPUTER PACKAGES, INC.,
Defendant.

Civil No. 3:06CV1935(AVC)

FILED
2011 JAN 14 P 1:44
US DISTRICT COURT
HARTFORD CT

ORDER

The court concludes that the \$8,378,145.00 jury verdict entered on May 25, 2010, is fair, just, and reasonable and adequately addresses all legal and equitable considerations. The defendant is ordered to pay forthwith. If the defendant fails to do so within thirty days, the court may enjoin the defendant from operating its business until such time as the verdict is satisfied.

/s/ Alfred V. Covello, USDJ
Alfred V. Covello
United States District Judge

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APPENDIX D

Filed January 24, 2011

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

WHITSERVE, LLC,
Plaintiff,

v.

COMPUTER PACKAGES, INC.,
Defendant.

Civil No. 3:06CV1935(AVC)

ORDER denying as moot the following: [375] motion for enhanced damages and attorneys' fees; [379] motion for prejudgment interest; [398] motion for prejudgment remedy; [399] motion for disclosure; [405] motion for judgment as a matter of law; [405] motion to alter judgment; [405] motion for new trial; [406] motion for judgment as a matter of law; [406] motion for new trial, in light of the court's order dated January 14, 2011. Signed by Judge Alfred V. Covello on 1/24/11. (S-Fawk, S)

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APPENDIX E

Filed October 10, 2012

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

2011-1206, -1261

WHITSERVE, LLC,
Plaintiff/Counterclaim Defendant-Cross Appellant,

and

WESLEY W. WHITMYER, JR.,
Third Party Defendant-Cross Appellant,

v.

COMPUTER PACKAGES, INC.,
Defendant/Counterclaim Plaintiff-Appellant.

Appeals from the United States District Court for the
District of Connecticut in case no. 06-CV-1935, Judge
Alfred V. Covello.

ORDER

NOTE: This order is nonprecedential.

A petition for rehearing en banc having been filed by the Appellant, and the matter having first been referred as a petition for rehearing to the panel that heard the appeal, and thereafter the petition for rehearing en banc having been referred to the circuit judges who are in regular active service,

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UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the court will issue on October 17, 2012.

FOR THE COURT

/s/ Jan Horbaly

Jan Horbaly

Clerk

Dated: 10/10/2012

cc: John A. Krause
Gene S. Winter

WHITSERVE V COMPUTER PACKAGES, 2011-1206,
-1261
(DCT - 06-CV-1935)

FILED
U.S. COURT OF APPEALS FOR
THE FEDERAL CIRCUIT
OCT 10 2012
JAN HORBALY
CLERK

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APPENDIX F

Oral Argument of February 7, 2012
Transcript dated February 13, 2012

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

WHITSERVE, LLC,
Plaintiff/Counterclaim Defendant-Cross Appellant,

and

WESLEY W. WHITMYER, JR.,
Third Party Defendant-Cross Appellant,

v.

COMPUTER PACKAGES, INC.,
Defendant/Counterclaim Plaintiff-Appellant.

2011-1206, -1261

Appeals from the United States District Court for the
District of Connecticut in case no. 06-CV-1935, Judge
Alfred V. Covello.

BEFORE:

HON. SHARON PROST
HON. KATHLEEN M. O'MALLEY
HON. HALDANE ROBERT MAYER

FEDERAL CIRCUIT JUDGES

A P P E A R A N C E S

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1 (Audio begins mid-sentence)

2 JUDGE PROST: —206, WhitServe v.
3 Computer Packages. Mr. Krause?

4 MR. KRAUSE: Good morning, Your
5 Honors. John Krause from the firm of
6 Fitzpatrick, Cella, Harper & Scinto. And with
7 me is Douglas Sharrott and Robert Czarnecki,
8 from the same firm.

9 I'm here to argue for the defendant-
10 appellant, Computer Packages, Inc., also known
11 as CPi, which was found by the trial court to
12 infringe four patents that belong to the
13 plaintiff, WhitServe. All four of the patents
14 list Mr. Whitmyer, the owner of WhitServe, as
15 the inventor. A jury found that the claims of
16 those patents were infringed, but the evidence
17 does not support the judgment of infringement.

18 JUDGE PROST: Wait, isn't part of
19 your problem that the jury found that they
20 were infringed under—well, the instructions
21 said "DOE or literal". And we don't know
22 whether the jury found infringement under DOE
23 or literal, do we?

24 MR. KRAUSE: That's correct.

25 JUDGE PROST: Because it seemed —

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1 and this was pointed out in red—that your
2 appeal on the infringement question in blue
3 really centered exclusively on the question of
4 literal infringement and not on DOE. Are they
5 correct about that? And if so, are you—
6 isn't that problematic for you in terms of the
7 DOE finding?

8 MR. KRAUSE: They are not correct on
9 that, Your Honor, because the doctrine of
10 equivalents does not apply when the patent
11 owner has given up the very language that they
12 rely on for alleging the doctrine of
13 equivalents.

14 So in this case, WhitServe is
15 alleging that there's a doctrine of
16 equivalents that applies here, that the fact
17 that there is manual, human intervention in
18 the accused products—they are claiming that
19 that—that the doctrine of equivalents would
20 cover that. But they gave up that very term
21 in their patent prosecution, where the claims
22 had all been rejected and the—Mr. Whitmyer
23 then stressed his use of the word
24 “automatically”.

25 JUDGE O'MALLEY: Are you objecting

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1 to the claim construction that the district—
2 I mean you haven't actually appealed the claim
3 construction, and yet you seem to ignore the
4 part of the claim construction where the court
5 found that some manual intervention is still
6 consistent with the word "automatically".

7 MR. KRAUSE: Well, the manual
8 intervention that the court referred to was to
9 initiate the operation of the software.

10 JUDGE O'MALLEY: Initiate or
11 interrupt?

12 MR. KRAUSE: And the second part was
13 "or interrupt". You can have manual
14 intervention to do those two things. That's
15 not what CPi does. They have no—they do
16 not—they are not alleging that you can't
17 initiate the software; of course you can. And
18 we are not alleging that there's manual
19 interruption; there is none. The software
20 itself pauses to require manual intervention.
21 It then continues on.

22 JUDGE O'MALLEY: All right. But
23 whether or not CPi does that is a factual
24 determination, correct?

25 MR. KRAUSE: It is, Your Honor. And

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1 the only evidence that defendants put in on
2 that question was testimony from an expert
3 with no basis for it. And we're—

4 JUDGE O'MALLEY: Well, did you seek
5 to exclude that expert testimony under
6 Daubert?

7 MR. KRAUSE: No, we did not, Your
8 Honor, because it was a matter of his opinion.
9 So it was opinion noted, and so that was
10 allowed to come in.

11 And what we have is actual evidence
12 of how the CPI system works.

13 JUDGE O'MALLEY: But doesn't the
14 jury have the right to credit that opinion
15 testimony if you haven't—

16 MR. KRAUSE: Yes, they do.

17 JUDGE O'MALLEY: —excluded it?
18 Okay.

19 MR. KRAUSE: Yes, they do. But I do
20 not believe it's a preponderance of the
21 evidence because if you take the evidence as a
22 whole, the documents that I will describe show
23 that there was no—

24 JUDGE O'MALLEY: Okay, well
25 preponderance is not the test, is it? There

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1 just has to be substantial evidence.

2 MR. KRAUSE: Well, there is no—
3 well, there has to be substantial evidence.
4 But in the face of what is shown, just a bare
5 testimony, I believe, is not—you cannot
6 overcome how the device actually works as
7 proved by the computer screen shots that form
8 part of the evidence.

9 JUDGE PROST: Can I move you on,
10 before your time runs out, to the damages
11 question. Let's assume we reject your
12 arguments with respect to validity and
13 infringement.

14 MR. KRAUSE: Um-hum.

15 JUDGE PROST: With respect to
16 damages, are you challenging the whole thing
17 or are you, in the alternative, saying just
18 chop off the last five million and leave it at
19 the three-point-something million, but take
20 out the additional damages because they were
21 for developmental costs and, therefore,
22 improper?

23 MR. KRAUSE: The three-point-
24 something million, Your Honor, was not even
25 referred to during the testimony of their

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1 financial expert, Dr. Shapiro (ph.). It was
2 only referred to by counsel during his
3 closing. So there's nothing in the testimony
4 to establish three-point million, either.

5 And so he—in his closing, he
6 mentioned—he gave that figure and he said
7 we should just add on another five million
8 to—because that's what we really deserve
9 here, he says, because of the many acts of
10 defendant—

11 JUDGE PROST: Well, they had plenty
12 of expert testimony on damages. So I need to
13 know, what aspect of it are you chal—I mean
14 you've got an 18.1 million, right, which was
15 used as a base—as a royalty base.

16 MR. KRAUSE: That's right.

17 JUDGE PROST: You didn't object to
18 that.

19 MR. KRAUSE: That's our figure.

20 We—

21 JUDGE PROST: Okay.

22 MR. KRAUSE: We gave—

23 JUDGE PROST: So are we dealing with
24 a disagreement as to the percentage, then,
25 that we apply?

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1 MR. KRAUSE: Well, we're disagreeing
2 with the percentage. And it was never applied
3 in the testimony of their expert. So it was a
4 sliding scale—I don't know what he applied
5 or what was intended to be applied to it
6 because he never gave me his estimate.

7 JUDGE O'MALLEY: Well, in his
8 closing argument, he explained where he got
9 the 3.3 million; he used the percentages that
10 his—one alternative percentage and one
11 alternative rate with respect to the surcharge
12 fees for purposes of that calculation.

13 MR. KRAUSE: He gave a dollar—a
14 certain dollar amount. But the scale of what
15 the witness—what the expert testified to
16 was that it was from sixteen to nineteen, a
17 sliding scale. And never did the witness say
18 how that would apply to the eighteen million.

19 JUDGE MAYER: Going back to the
20 validity, you initially raised the issue of
21 101 and this is not patentable subject matter.
22 Why is this? Or why isn't it patentable under
23 101?

24 MR. KRAUSE: The only—I think it
25 is patentable to the extent that he—that

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1 the claims taken by themselves. But it's a
2 software patent and there is no disclosure of
3 any software in the case. The only thing he
4 has is function that the software should
5 provide.

6 So the point is it just seems—it
7 just seems that it is not a sufficient
8 disclosure to do.

9 JUDGE PROST: But did you raise an
10 appeal the—a 101 validity determination.

11 MR. KRAUSE: I don't think—I
12 don't even remember that. So if we did, I am
13 surprised. But no, just under 102.

14 JUDGE PROST: So you—do you know
15 why you never would have raised the 101 issue?

16 MR. KRAUSE: Well, because we
17 limited the—we had enough issues in the
18 appeal to begin with. And so we limited it
19 just to the 102, a much later patent which
20 exactly discloses what's in the 007 patent.
21 There's only one patent that we have
22 challenged literally on; that's the 007
23 patent.

24 JUDGE PROST: And that's with
25 respect to anticipation, correct?

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1 MR. KRAUSE: That's correct.

2 JUDGE O'MALLEY: Which is also a
3 question of fact, correct?

4 MR. KRAUSE: Which is a question of
5 fact. Well, any reasonable person reading the
6 patent would agree with it. And the only
7 defense against invalidity raised by the
8 plaintiff was their expert's testimony that
9 three things were missing from Schrader. They
10 had no other argument against but three things
11 were missing. Two of those—and that was on
12 direct testimony.

13 On cross-examination, two of those
14 aspects were completely negated. He admitted
15 that two of them were there and the—that's
16 at pages A-15, 11 and 612. And the third
17 element was a data conversion requirement.
18 And that's shown in one claim in the patent.
19 And that's shown exactly in Fig. 6 of
20 Schrader.

21 So the only things—the only thing
22 they challenged as to the anticipatory value
23 of Schrader were those three things. And all
24 of them were without merit.

25 And if you look at Schrader, the 007

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1 patent requires a client computer that sends a
2 request to a central computer for client
3 information. And then the central computer
4 sends that back to the client computer to be
5 saved.

6 That's exactly what Schrader had;
7 Schrader has a client computer 301, it sends a
8 request in hoc vervit (ph.) to the central
9 computer. The central computer sends that
10 information—sends the information that's
11 requested back to the client, and it's saved.

12 JUDGE O'MALLEY: In your appeal,
13 though, you only attack claim 10 as being
14 anticipated. And claim 10 is not the same as
15 the other claims. In fact—

16 MR. KRAUSE: The only—the only—

17 JUDGE O'MALLEY: —it's very
18 different in some respects. So what about the
19 other claims? Even if claim 10 is gone, does
20 that change the result here?

21 MR. KRAUSE: Everything in the other
22 claims is a given in the art. The only
23 question there was, was the data conversion
24 requirement in claim 7. Every—the other
25 limitations were all present in the other

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1 claims. And that data conversion is shown in
2 Fig. 6 of Schrader.

3 JUDGE O'MALLEY: And from what
4 your—you also glibly refer to the word
5 “obvious” in that cite. It is really just an
6 anticipation argument.

7 MR. KRAUSE: It's an anticipation,
8 except for—like, for example—well, for
9 everything. And if there's any small
10 difference in any of the other claims, it's
11 something that's—

12 JUDGE O'MALLEY: So you're just
13 saying that to the extent that their
14 encryption might not be in—

15 MR. KRAUSE: Encryption is there in
16 several places. So that's not a—not a
17 legitimate question.

18 JUDGE O'MALLEY: And you're saying
19 it's just known in the art, so it—

20 MR. KRAUSE: No, it's in the patent.

21 JUDGE O'MALLEY: In which? In
22 Schrader?

23 MR. KRAUSE: In Schrader. Yes.

24 JUDGE PROST: Do you want to save
25 the remainder for your rebuttal? You're into

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1 your rebuttal time now.

2 MR. KRAUSE: I just want to stress,
3 if I could, the noninfringement because the
4 screen shots of how the CPi device works are
5 shown in A-21, 223 through 229. And it's very
6 clear that the software starts when you press
7 the reminder button. You press the reminder
8 button to obtain reminders; that's what the
9 clause is that's in issue.

10 And when you press the button,
11 that's when it all starts. And you'll see in
12 the screen shots—for example, in the 12-223
13 and 15-223, the—by pressing “reminder”,
14 software starts.

15 In the next screen shot, it shows a
16 legend at the very bottom left that says
17 “calculating”. So obviously, the software is
18 working.

19 The next screen shot shows all of
20 the reminders called up. So obviously, the
21 software is working. And it's proving that
22 software—that manual steps are required.

23 Thank you.

24 JUDGE PROST: Thank you.

25 Mr. Winter?

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1 MR. WINTER: Mr. Whitmyer is a
2 quintessential American inventor. In the
3 mid—early to mid '90s, he was charged with
4 maintaining the massive portfolio for a
5 chemical company and saw the terrible—

6 JUDGE O'MALLEY: You don't need to
7 make your emotional pleas to us. They're
8 already claiming that you shouldn't have done
9 that to jury. So let's just focus on the
10 argument.

11 MR. WINTER: The core three patents,
12 the validity's not in question. Know that.

13 Mr. Whitmyer spent half a million
14 dollars to—

15 JUDGE MAYER: Even under 101?

16 MR. WINTER: Actually, as far as I
17 know, 101 was never challenged in the trial
18 court—

19 JUDGE MAYER: Or (indiscernible)
20 that's akin to jurisdiction as far as I can
21 see. I can see we can raise it ourselves if
22 we want to. That was—it was pled—don't
23 know if it was necessary to be pled, but it—
24 I'm wondering why this isn't an abstract idea;
25 why is this even a patent case?

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1 MR. WINTER: Well, it's not an
2 abstract idea because your—if you look at
3 the device claims, they involve physical
4 computers that operate and are described with
5 physical components that do specific tasks.
6 And the tasks are delineated in the claims, so
7 there's actually a device claim that is not a
8 business method.

9 There is also method claims that
10 require steps that search databases that
11 produce forms, that have forms that are sent
12 to the clients and that are—

13 JUDGE PROST: Well, in that regard,
14 isn't it akin to some other cases we've had
15 under 101 where we've said it's insufficient,
16 that—

17 MR. WINTER: I don't—

18 JUDGE PROST: —it's not
19 patentable?

20 MR. WINTER: I don't believe so, in
21 the sense that we have hardware in almost
22 every one of the claims.

23 JUDGE PROST: And you think that
24 just because you refer to a computer or have
25 some reference to hardware that that's

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1 sufficient to deal with 101?

2 MR. WINTER: Well, no. It's the
3 interaction between the hardwares—it's like
4 a mechanical device that's controlled by a
5 computer; you have the device controlled by
6 the computer and steps that involve the
7 computer, so you have mechanical steps.

8 So I think the issue is not—
9 raised below is not raised on appeal. And I
10 think I've addressed those issues. It's
11 basically—under the case law of the Federal
12 Circuit, once you have a mechanical device
13 claims or device claims and you have
14 interaction, you have a result, you have a
15 form that goes to the client, the client fills
16 out a form and sends it back, that is not an
17 abstract idea. That is a feature and
18 function.

19 I'd like to—

20 JUDGE PROST: With respect to
21 damages, particularly in the closing argument
22 and elsewhere, it seems quite clear to me—
23 and I guess I wonder if you would agree with
24 this—that when you were asking for whatever
25 the amount was, based on the royalty base, you

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1 were saying you need an additional five to ten
2 million dollars because that's the amount that
3 would have been the developmental cost.

4 MR. WINTER: That's not—that's
5 one of the bases. The—

6 JUDGE PROST: Well, you made that
7 argument to the jury, did you not?

8 MR. WINTER: Yes. But the central
9 basis for the awarded damages was our expert
10 testified that the maintenance fee for patent
11 maintained was on the order—

12 JUDGE PROST: I mean we don't know
13 what the central argument necessarily was. In
14 the closing argument, you stated you need to
15 compensate WhitServe in this case for money it
16 would take to build a software product. And
17 you went on to talk about according to the
18 law, you add, for the four years of hell, the
19 cost to develop that software, you can add
20 another five to ten million dollars of that
21 number to adequately compensate for the
22 infringement.

23 MR. WINTER: That is—

24 JUDGE PROST: Is there any doubt
25 that the jury—you were pleading or asking

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1 or suggesting to the jury that they cap
2 whatever amount they have with five to ten
3 million dollars for developmental costs?

4 MR. WINTER: Well, I was asking for
5 an alternative damage theory. There's one
6 theory that damage is sufficient to
7 compensate. There's a second damage theory is
8 the minimum is a reasonable royalty. In front
9 of the jury, we went forward with a forty-one-
10 plus outer for patent maintained. By
11 agreement, there was over a million patents
12 maintained—a million, thirty-thousand-odd
13 patents maintained. The royalty base is over
14 forty million dollars—forty-three million
15 dollars.

16 JUDGE O'MALLEY: Well, how did
17 you—how do you extrapolate? The problem is
18 that your expert starts with the nineteen
19 percent of profit as the—what he gets
20 coming down from his twenty-five percent rule
21 of thumb, which we can talk about in a minute.

22 But assuming that because there were
23 no objections, both experts can start there,
24 he's at nineteen percent of profits and then,
25 without any explanation, he ends up at

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1 nineteen percent of revenue. How does he
2 extrapolate? How does he get from one point
3 to the other?

4 MR. WINTER: Oh, I don't think he
5 was—I don't think he ever said nineteen
6 percent of profits. Basically, the—if you
7 take a royalty base of forty-two million
8 dollars, roughly, and you apply that to the—

9 JUDGE PROST: How do you get the
10 forty-two million? You get it with a service
11 fee—

12 MR. WINTER: Right.

13 JUDGE PROST: But in your argument
14 to the jury, you're dealing with the 15.69
15 service fee, not the 41-dollar service fee.

16 MR. WINTER: Well—

17 JUDGE PROST: And you're saying that
18 gets you to 3.3 million, but then you need to
19 add to that five to ten million to compensate
20 us for developmental costs. Was that not your
21 argument to the jury?

22 MR. WINTER: There were two
23 arguments. There's an argument for reasonable
24 royalties; those are based on our forty-two-
25 million-dollar figure. And that the eight-

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1 billion-plus damage award relative to forty-
2 two million dollars of infringing revenues is
3 good. And in the—

4 JUDGE PROST: And what percentage
5 are we using with that? How do—what
6 percentage did you use to get to?

7 MR. WINTER: Twenty percent.
8 Nineteen to twenty percent. And that was
9 testified at length by the expert. That's all
10 in our brief and I can walk you right through
11 it. There's admitted to—

12 JUDGE PROST: Okay. So at—but at
13 a minimum, you're saying there were two
14 alternative damages—

15 MR. WINTER: Yeah. And another
16 theory is that if you believe them and the
17 royalty basis was eighteen million—which we
18 think is not credible, their witnesses weren't
19 credible—and that our damages were only
20 3.6, the jury is entitled, under the theory of
21 damages sufficient to compensate, to
22 include—consider a large number of factors
23 that are in the precedent. So—

24 JUDGE PROST: And one of those
25 factors, in your view, is the cost—if they

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1 had developed the software, the cost that
2 would—what would it cost.

3 MR. WINTER: That is the basis.
4 Yes.

5 JUDGE PROST: What's your best—
6 what are the cases that support that?

7 MR. WINTER: I'd have to go back
8 into my brief; I don't have them at the top of
9 my mind.

10 Could you grab those?

11 It's in our brief, the two cases.

12 And it's discussed at length that in cases,
13 there's a portion of the judgment that is
14 damages sufficient to compensate. And there's
15 a second portion that are damages that relate
16 to a reasonable royalty. So there are several
17 Federal Circuit case law that says you can
18 have damages sufficient to—reasonable
19 royalty is fifty percent and damages is above
20 that, as part of a—the damages sufficient
21 to compensate.

22 JUDGE O'MALLEY: Well, if you can
23 show something like price erosion or some
24 other bases. But just to say you could—
25 your argument sort of says—it seems like

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1 you're arguing for hedonic damages, like we
2 had some pain and suffering here while we went
3 through the hell of this litigation. You
4 can't get pain and suffering damages in a
5 patent case.

6 MR. WINTER: Well, the Federal
7 Circuit case law says that part of the
8 analysis of damages sufficient to compensate
9 is the length of the litigation and the fact
10 that the patent owner, rather than having a
11 license situation, had to go through
12 litigation. So the case law supports
13 additional damages. In our case—

14 JUDGE O'MALLEY: So—

15 JUDGE PROST: Is there a case that
16 supports additional damages at the cost—
17 what you would have—it would have cost you
18 to develop the product yourself? Because I
19 don't know of such a case.

20 MR. WINTER: Well, we cite it on
21 page 43 of our brief. Resnick v. Lanson (ph.)
22 (2010). Ayer-Bronson (ph.). It's 43 of our
23 brief.

24 More than a reasonable royalty,
25 that's because the patent (indiscernible), he

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1 didn't practice the invention. And so they
2 don't require—and for—

3 JUDGE PROST: Well, we didn't—I
4 didn't ask you about lost opportunity to
5 practice the invention; I asked you about the
6 five to ten million dollars, which you
7 described as the cost to develop that
8 software.

9 MR. WINTER: Well, that is—during
10 the course of the litigation, our client is
11 forced to litigate and use its resources for
12 things other than developing software. So the
13 jury can take that into account. And the
14 cases support that.

15 But that's only an alternative—

16 JUDGE PROST: Okay. Let me go back
17 to your alternative use. We referenced the
18 forty-one-dollar transaction fee because you
19 say well, you don't accept the five-to-ten-
20 million-plus, you can say that the jury relied
21 on your transaction fee of forty-one dollars.

22 MR. WINTER: Yeah.

23 JUDGE PROST: Is that correct?
24 Didn't the forty-one-dollar transaction fee
25 include both infringing and noninfringing

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1 transactions?

2 MR. WINTER: Not at all. The

3 analysis is that CPi—

4 JUDGE PROST: I thought your—did
5 your expert not concede that the average
6 transaction fee of forty-one dollars included
7 both infringing and noninfringing
8 transactions?

9 MR. WINTER: The forty-one dollar
10 fee—

11 JUDGE PROST: Could I have a yes—
12 is there a possibility of answering that
13 question yes or no? Did your expert agree or
14 concede that that transaction fee included
15 both infringing and noninfringing—

16 MR. WINTER: He did not concede
17 that.

18 JUDGE PROST: Okay.

19 MR. WINTER: What his analysis was,
20 in 2005, we knew that twenty-three percent of
21 their transactions were infringing. He
22 calculated—he had the total number of
23 transactions, both infringing and not; he
24 calculated a fee of forty-one dollars-plus.

25 In 2009, he did the same analysis,

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1 even though the transaction—number of
2 transactions, percentage of transactions was
3 around forty percent. So when he applied that
4 number to the 2009 figure, he got the same
5 figure: forty-one; i.e., that the average for
6 the infringing transaction was the same as the
7 average for the noninfringing transactions.

8 So he had detailed financial
9 information from CPi; he had their financial
10 statements; he had their expert report; he
11 had—I can go through—I can give you—A
12 cites (ph.) or credit cites (ph.). He had the
13 fact that they reported a million infringing
14 transactions in 2009. So this isn't a guess.

15 The other thing is as a plaintiff,
16 we're limited to the information that's
17 provided by the defendants. And they had the
18 opportunity on cross-examination and in
19 rebuttal to undermine that. They could have
20 brought forward invoices, they could have
21 brought forward—in fact, their number comes
22 from their expert testifying as to facts.
23 Their number doesn't come from Dr.—Jerry
24 Van Winter, the principal; or Ms. Hewa (ph.),
25 the principal.

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1 So our figures were extracted from
2 their financial documents. They have—they
3 relate directly back to the financial
4 documents. And the royalty base of infringing
5 transactions is forty-two million dollars;
6 there's substantial evidence to support that.
7 And when you say that we're going to get 8.3-
8 odd of 42 million dollars—

9 JUDGE PROST: Is that profits or
10 revenue?

11 MR. WINTER: That's infringing
12 revenue; that's not profits.

13 JUDGE PROST: Well, don't we take a
14 percentage of profits for the royalty base
15 number>

16 MR. WINTER: No. It's an infringing
17 revenue. The profits would be much—

18 JUDGE O'MALLEY: Right, but in terms
19 of calculating the percentage, don't you have
20 to do a calculation that says, okay, if the
21 norm for a license is, say, twenty-five
22 percent of profits, even if you're working
23 with the twenty-five percent rule, you then
24 have to apply that and do a mathematical
25 calculation to say what that number would be

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1 as applied to the revenue base.

2 MR. WINTER: That's to get to the
3 royalty rate. And that's what we did; that's
4 why we had a high royalty rate. We had
5 testimony, royalty rates as high thirty-one
6 percent, which is, I think, a—

7 JUDGE O'MALLEY: Okay. So your
8 nineteen percent of revenue, that royalty rate
9 would extrapolate to—

10 MR. WINTER: Roughly—

11 JUDGE O'MALLEY: —something much
12 higher than twenty-five percent of profit.

13 MR. WINTER: I—twenty-five
14 percent of profit—in 200—it's very
15 difficult to attribute the profit to a
16 particular year.

17 But let's take, for example, the
18 year 2009. They had twenty-four million
19 dollars of profits. The testimony was roughly
20 forty million—forty percent of that was—
21 they had forty percent of their transactions
22 infringing.

23 So if you were to analyze just the
24 profits for 2009—and it's not exact because
25 they have other revenues and the—they have

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1 very few other revenues, but there are some
2 other revenues that don't make the transaction
3 identical. But the—you would have a profit
4 alone on the—on their infringing sales in
5 2009 alone of roughly nine to ten million
6 dollars, just one year of profits for
7 infringing.

8 JUDGE O'MALLEY: Okay. The only
9 testimony in the record on profits was CPI's
10 expert testified to 21.9 percent on the profit
11 margins. Your expert didn't even address what
12 the profit margin would be.

13 MR. WINTER: Yes, he went through
14 the complete analysis in the record. The
15 record's complete with his analysis of what
16 the profit margin is.

17 The answer to a specific question, I
18 don't recall what the exact number was that he
19 came up with. But because it's a software
20 case and because it's a case about efficiency,
21 you have royalty rates that are much higher
22 than mechanical rates and otherwise.

23 So that when you look at the
24 revenue—the infringing revenue of 42, 43
25 million dollars and you apply a royalty rate

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1 to that and get 8.3, that is not exceptional.

2 Now, you have to realize Judge
3 Covello sat through the whole case. His
4 ruling on that issue was not wishy-washy; it
5 wasn't that, oh, there's substantial evidence
6 to support that finding, the jury's finding.
7 His ruling, twice, was that the award was
8 fair, just and reasonable. At some point—

9 JUDGE O'MALLEY: It's kind of hard
10 to interpret what his rulings were on some of
11 those issues. He doesn't say much of
12 anything, does he?

13 MR. WINTER: For many of them. But
14 in the damage area, he said it's fair, just
15 and reasonable, twice, and said to them that
16 they need to pay the 8.4 in thirty days or he
17 may enter an injunction.

18 So he basically tied it with the
19 possibility of an injunction.

20 I'm just totally out of time.

21 JUDGE PROST: All right. Well, why
22 don't we give you another two minutes if you
23 want to cover your cross-appeal? Because
24 your time has run out and you haven't even
25 raised your cross-appeal.

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1 MR. WINTER: You want me to do it on
2 rebuttal or do it now?

3 JUDGE PROST: Well, I don't think
4 you can do it on rebuttal; if you haven't
5 raised it in the first instance, you've lost
6 it on rebuttal.

7 MR. WINTER: Okay. Anyhow, I think
8 we've got to trust the jury and we've got to
9 trust the judge. And we have a basis of
10 forty-two, forty-three million dollars. And
11 the award is fair.

12 Now, the cross-appeal, where are the
13 errors? I think that's where we need to start
14 because that's what this court's all about.

15 The principal error is in the
16 analysis of the eBay factors.

17 JUDGE PROST: Well, if you found
18 there was no irreparable harm—if you find
19 there's no irreparable harm, are you
20 suggesting that the law requires, eBay
21 requires, that you still go after the other—
22 analyze the other factors—

23 MR. WINTER: Yes, absolutely.
24 Absolutely. Basically, if you go back to the
25 Bosch (ph.) case, it was published at the time

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1 of our—we didn't have the opportunity to
2 look at that case. It says that you have to
3 balance all factors.

4 And the fact that lack of
5 irreparable harm for an individual inventor
6 that started his business two months before
7 the jury trial, you—if you're going to hold
8 that inventor to the standard of irreparable
9 injury in the two months of the time he's been
10 doing business and treat him like a major
11 corporation, there is no hope for individual
12 inventors.

13 JUDGE O'MALLEY: What evidence did
14 you present of irreparable—

15 MR. WINTER: Well, basically, I
16 think that—on irreparable harm or on the
17 other factors?

18 JUDGE O'MALLEY: On irreparable
19 harm.

20 MR. WINTER: Basically, we presented
21 the evidence that the customers are sticky,
22 i.e., once they obtain—a customer goes with
23 a particular company, it's impossible to
24 dislodge that. We established that
25 WhitServe—I mean the NetDocket, though

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1 they're actually owned by Mr. Whitmyer through
2 WhitServe—was just a starting business at
3 that point in time and had a competitive
4 product called—the NetDocket product
5 competes directly with a product that they
6 launched in 2008 that they built. Their
7 software was built during the course of the
8 lawsuit, launched in 2008. And our client's
9 software is directed to having law firms work
10 with their clients to maintain patents.

11 And—

12 JUDGE O'MALLEY: Why wouldn't money
13 damages be sufficient, though? You can't have
14 two competitors in the same market?

15 MR. WINTER: Well, I think that
16 money damages are not sufficient in the sense
17 that if we block them from using our patented
18 invention, we have an opportunity for those
19 to—for those customers.

20 The second thing about irreparable
21 harm is that it's a balancing test in the
22 sense that they—sixty percent of their
23 transactions were noninfringing. It's not
24 like we're putting them out of business. They
25 can go to their methodology that they—are

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1 tried and true and most of their revenue.

2 So when you balance—that's the
3 third prong of the eBay test. When you
4 balance that, they have really no argument
5 for—

6 JUDGE PROST: All right. Well, I
7 think we take your point. And we'll restore a
8 minute for your rebuttal at the end.

9 MR. WINTER: Your Honor, if I could
10 close up, just make one more point?

11 JUDGE PROST: Your time's up. So
12 you've got a minute on rebuttal, if that will
13 do.

14 MR. WINTER: I'll make the point
15 then. Thank you, Your Honors.

16 JUDGE PROST: We'll give you a—
17 we'll give you a couple minutes to even out
18 the time that we gave the other side because
19 we gave the other side additional two minutes.

20 MR. KRAUSE: Thank you, Your Honor.

21 Just referring to a number of
22 things. The sixteen and nineteen percent that
23 their witness proposed was based on the
24 starting point of twenty-five percent royalty,
25 which is no longer the law as I understand.

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1 JUDGE PROST: Yeah, but the
2 difficulty is you agreed with that twenty-five
3 percent. So what do we do, now?
4 MR. KRAUSE: I—I—
5 JUDGE PROST: Like, the law said it,
6 but—
7 MR. KRAUSE: So I was—
8 JUDGE PROST: So you were suggesting
9 we should—
10 MR. KRAUSE: We started there, too.
11 But in any event, let me just say this. The
12 other problem with that sixteen and nineteen
13 percent is that they ignored the low, single-
14 digit royalty that they received from the one
15 case that they settled. They settled a case.
16 And I can't tell you exactly what
17 that fee is. It's on—that's on page 57 of
18 our briefs. That's considered to be
19 confidential; it was a low, single-digit
20 number. Our witness doubled that and used
21 that as the number to decide the amount of
22 royalties, which comes out to 440,000 if you
23 use double the royalty that they received from
24 their one license.
25 The next thing is the forty

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1 million—

2 JUDGE PROST: But you're asking for
3 a new trial, right? On damages.

4 MR. KRAUSE: On damages. Yes,
5 that—but I'm also asking for a holding that
6 the claims are all—that none of them are
7 infringed and that the—

8 JUDGE PROST: No, I understand. Of
9 course.

10 MR. KRAUSE: And so—

11 JUDGE O'MALLEY: Now, you need to
12 address the cross-appeal, too. So let's—

13 MR. KRAUSE: Yeah.

14 JUDGE O'MALLEY: Let me ask you a
15 couple questions.

16 MR. KRAUSE: Sure.

17 JUDGE O'MALLEY: First of all, with
18 respect to the period of time post-verdict up
19 until the court decides whether or not there's
20 entitlement to an injunction and enters final
21 judgment, didn't our Finjan (ph.) case resolve
22 the question that in fact, those—that
23 period of time has to be accounted for?

24 MR. KRAUSE: Yes, it did, Your
25 Honor. But the judge, in his rulings, said

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1 that they had received total compensation that
2 was just for them and—I didn't consider it
3 just for us—but it was just for them. And
4 they moved to have him reconsider. He
5 reconsidered and he said it again.

6 JUDGE O'MALLEY: Well, but that
7 doesn't mean he was right. I mean our Finjan
8 case says you have to allow for this post-
9 verdict—

10 MR. KRAUSE: The only argument I
11 could give on that, Your Honor, is that the
12 jury treated it as a paid-up license because
13 that's the only kind of license they heard of.
14 They had a paid-up license for the low, single
15 digit amounting to three—over three
16 million. They had another—

17 JUDGE O'MALLEY: Yeah, but the
18 problem with that argument, isn't it that when
19 you look at this closing—at the jury
20 instructions, the jury was told that they were
21 only allowed to provide compensation for past
22 infringement? So if they're not told that
23 they should consider a forward-looking
24 license, how can you argue that that's what
25 they did?

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1 MR. KRAUSE: That's the only I could
2 understand might have been in the judge's mind
3 for denying the interest, Your Honor.

4 JUDGE O'MALLEY: Okay. Well, he
5 didn't—I mean he denied a lot of things.
6 One is he denied that that accounting, he
7 denied interest. And our case law says that
8 interest is the norm unless you explain why
9 you shouldn't have it.

10 MR. KRAUSE: His only estimation was
11 that he thought that the amount that they
12 received would cover everything in the world.
13 And so—

14 JUDGE O'MALLEY: Right. But he
15 still found all these requests to be moot.
16 They weren't really moot, were they?

17 MR. KRAUSE: They're moot in view of
18 his decision that they had full—had been
19 awarded a full amount. The only alternative
20 would have been for—to cut the amount of
21 damages that were awarded and put them down to
22 a reasonable number.

23 Now, I just—

24 JUDGE PROST: And you would agree
25 that our case law also requires that if you're

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1 going to deny enhanced damages after a finding
2 of willfulness, that the district court judge
3 has to explain his denial, correct?

4 MR. KRAUSE: But he only
5 explained—the only explanation I could say
6 he gave is what he gave in those two decisions
7 that he handed down on his orders. And I
8 would leave it up to the Court to determine
9 whether that's a sufficient basis for the
10 finding.

11 JUDGE O'MALLEY: And you haven't
12 appealed the willfulness finding?

13 MR. KRAUSE: Only—again, because
14 there was no willfulness. And only—the
15 only reason we didn't appeal—

16 JUDGE O'MALLEY: Well—but you
17 didn't appeal it.

18 MR. KRAUSE: I'll say the only
19 reason we didn't appeal is because there's so
20 many issues in the case already.

21 JUDGE O'MALLEY: Well, by
22 definition, we have a willfulness finding and
23 a final judgment. To the extent that you keep
24 infringing, if you're continuing to go forward
25 and use the product, aren't you subject to—

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1 even if you don't get an injunction, you're
2 subject to repeated trouble damages findings,
3 correct?

4 MR. KRAUSE: For continued—

5 JUDGE O'MALLEY: Everything you're
6 doing now.

7 MR. KRAUSE: For continued
8 infringement of the products that were there.
9 If the case is not decided for liability on
10 our behalf, then that would be a
11 consideration.

12 JUDGE O'MALLEY: Well, the res
13 judicata on liability, if we agree with the
14 liability determination, right?

15 MR. KRAUSE: That's true. That's
16 what I'm saying. If you agree with—if
17 you—

18 JUDGE O'MALLEY: Okay. I think—

19 MR. KRAUSE: May I just say the
20 forty-one-dollar amount, I—

21 JUDGE PROST: I'll make one—and,
22 well, we'll compensate—

23 MR. KRAUSE: Okay. They came to
24 us—they agreed to the eighteen million as a
25 revenue. The reason—at 11:16 on the night

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1 before the trial, we got an e-mail saying we
2 don't agree with that eighteen million—

3 JUDGE PROST: I think that's all in
4 your briefs.

5 MR. KRAUSE: Okay.

6 JUDGE PROST: I believe that's all
7 covered in the—

8 MR. KRAUSE: And the forty-one
9 dollars is a small business—

10 JUDGE PROST: I believe that's all
11 covered in your briefs.

12 MR. KRAUSE: Okay. Thank you.

13 JUDGE PROST: Thank you.

14 We'll give you—

15 MR. WINTER: With respect to an
16 injunction—

17 JUDGE PROST: And we'll give you an
18 extra minute.

19 MR. WINTER: Thank you. You're very
20 nice to do that.

21 With respect to an injunction, a
22 willfulness finding of four patents and a huge
23 number of claims is like a lead brick on the
24 balance beam of the eBay factors. It's not a
25 presumption. But if you are going to tell the

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1 court—the public that you can start a
2 project in 2006 during the course of
3 litigation, bring the product to market in
4 2008, have no reasonable belief of validity or
5 infringement arguments and put the product out
6 in 2008 and infringe in 2010 and say that this
7 is the way the patent system should operate,
8 we have a real problem. And in your
9 questions, you understand that problem.

10 The second issue we have is let's
11 suppose we don't have irreparable injury;
12 you're going to find against me. The flipside
13 of irreparable injury is that there were
14 damages sufficient to compensate going
15 forward.

16 Now, the Pace (ph.) case says that
17 you need to compensate based on the fact that
18 the—going forward, the party is a willful
19 infringer. Going forward here, the party is a
20 super-willful infringer. This is unheard of
21 in the context of patent law.

22 And when you have a willful
23 infringer who developed a product during the
24 course of a lawsuit, launches the product and
25 you're going to tell my individual inventor

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1 who just spent a half million dollars to try
2 to put together NetDocket that he can't get an
3 injunction because you have only one part of
4 the test that you don't need, I think we have
5 a real serious problem with the eBay factors.

6 And I actually think that the Bosch
7 case says that you have to look at all the
8 factors. And the public policy factors are do
9 you want a willful infringer who developed a
10 product during a lawsuit to continue to
11 infringe, particularly when you balance the
12 equities, and at the time of the verdict, they
13 only had forty percent of their products were
14 infringing? That's up to you. But if you
15 don't make that call in my favor, I think you
16 must make the call that we're entitled to
17 damages going forward and a compulsory license
18 that was ignored by the court.

19 We have your argument. Thank you.

20 MR. WINTER: Thank you.

21 (Proceedings concluded)

22

23

24

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C E R T I F I C A T I O N

I, Shalom Boroda, hereby certify that the foregoing is a true and correct transcription, to the best of my ability, of the sound recorded proceedings submitted for transcription.

I further certify that I am not employed by nor related to any party to this action.

In witness whereof, I hereby sign this date:

February 13, 2012.

Shalom Boroda
AAERT Certified Electronic Transcriber
CET**D 632

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APPENDIX G

U.S. PATENT NO. 5,895,468

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

2. The device of claim 1 further comprising software executing on said computer for automatically generating

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a response based on the reply, and for automatically transmitting the response to a third party.

3. The device of claim 2 further comprising software executing on said computer for automatically updating said database based on the reply.

4. The device of claim 3 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

5. A device for automatically delivering professional services to a client comprising:

a computer;

a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information

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database by the matter identification number to retrieve client information;

a forms database containing a plurality of response forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a response form;

software executing on said computer for automatically merging the date and the client information with the response form;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

6. The device of claim 5 further comprising software executing on said computer for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

7. The device of claim 6 further comprising software executing on said computer for automatically updating said database based on the reply.

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8. The device of claim 7 further comprising software executing on said computer for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client through said communication link.

9. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL;

a web server;

software executing on said computer for automatically transmitting the client response form to said web server and for automatically transmitting the notice to the client; and,

software executing on said web server for automatically transmitting the response form to the client when the URL is activated and for

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~~automatically receiving a reply to the response
form from the client.~~

10. The device of claim 9 further comprising software executing on said web server for automatically generating a response based on the reply, and for automatically transmitting the response to a third party.

11. The device of claim 10 further comprising software executing on said web server for automatically updating said database based on the reply.

12. The device of claim 11 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

13. The device of claim 9 further comprising:

software executing on said web server for
automatically generating a notice of reply based
on the reply, and for automatically transmitting
the notice of reply to said computer; and

software executing on said computer for
automatically receiving the notice of reply from
said web server.

14. The device of claim 13 further comprising software executing on said computer for automatically generating a response based on the notice of reply, and for automatically transmitting the response to a third party.

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15. The device of claim 14 further comprising software executing on said computer for automatically updating said database based on the notice of reply.

16. The device of claim 15 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

17. The device of claim 9 wherein said database comprises a docket database containing a plurality of client reminders, each of the client reminders including a matter identification number and a type of reminder identification, and wherein said software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL comprises:

- a client information database containing a plurality of client information;

- software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

- a response forms database containing a plurality of response forms;

- software executing on said computer for automatically querying said response forms database by the type of reminder identifier to retrieve a response form;

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software executing on said computer for automatically merging the date and the client information with the response form; and,

software executing on said computer for automatically merging the date and the client information with a notice, the notice containing a URL.

18. The device of claim 17 wherein the reply to the response form contains an action type and an action request, and further comprising;

an action forms database containing a plurality of action forms;

software executing on said web server for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

19. The device of claim 18 further comprising software executing on said web server for automatically updating said docket database based on the reply.

20. The device of claim 19 further comprising software executing on said web server for automatically generating a confirmation based on the reply, and for automatically transmitting the confirmation to the client.

21. The device of claim 17 further comprising:

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software executing on said web server for automatically generating a notice of reply, the notice of reply containing an action type and an action request, and for automatically transmitting the notice of reply to said computer;

an action forms database containing a plurality of action forms;

software executing on said computer for automatically receiving the notice of reply from said web server, for automatically querying said action forms database by the action type to retrieve an action form, for automatically merging the action request with the action form, and for automatically transmitting the action form to a third party.

22. The device of claim 21 further comprising software executing on said computer for automatically updating said docket database based on the notice of reply.

23. The device of claim 22 further comprising software executing on said computer for automatically generating a confirmation based on the notice of reply, and for automatically transmitting the confirmation to the client.

24. A method for automatically delivering professional services to a client comprising the steps of:

providing a computer;

providing a database containing a plurality of client reminders, each of the client reminders

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comprising a date field having a value attributed thereto;

querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

generating a client response form from the retrieved client reminder;

establishing a communication link between said computer and the Internet;

transmitting said client response form to the client through said communication link; and,

receiving a reply to the response form from the client through said communication link.

25. The method of claim 24 further comprising the steps of:

generating a response based on the reply; and

transmitting the response to a third party.

26. The method of claim 25 further comprising the step of updating said database based on the reply.

27. The method of claim 26 further comprising the steps of:

generating a confirmation based on the reply; and

transmitting the confirmation to the client through said communication link.

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U.S. PATENT NO. 6,049,801

1. A web site for providing professional services comprising:

a computer;

a database accessible by said computer;

a web page for receiving a plurality of reminder identifiers;

a program executing on said computer for determining a reminder date and a client identifier from each of the plurality of reminder identifiers, and for storing the reminder identifiers, reminder dates and client identifiers on said database;

software for automatically querying said database by the values attributed to each reminder date to retrieve a reminder identifier and client identifier; and

software for associating the retrieved reminder identifier with a professional service and for preparing an electronic document with the retrieved client identifier for use in performing the professional services.

2. The web site of claim 1 wherein the reminder identifier includes an intellectual property identifier.

3. The web site of claim 2 wherein the intellectual property identifier is a patent number.

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4. ~~The web site of claim 2 wherein the intellectual property identifier is a trademark number.~~
 5. The web site of claim 2 wherein the professional service is payment of an annuity.
 6. The web site of claim 2 including a source of intellectual property data for checking the intellectual property identifier.
 7. The web site of claim 6 wherein the data source checks the filing date of the intellectual property identifier.
 8. The web site of claim 6 wherein the data source checks the registration date of the intellectual property identifier.
 9. The web site of claim 2 including a source of intellectual property data for supplementing the intellectual property identifier.
 10. The web site of claim 2 wherein the professional service is filing of an intellectual property application.
 11. The web site of claim 1 wherein said web page is also designed for receiving a client reference associated with the reminder identifier.
 12. The web site of claim 11 including a web page for reporting the reminder identifiers organized by client identifier and then by client reference.
 13. The web site of claim 1 including a web page for reporting the reminder identifiers organized by client identifier.

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14. The web site of claim 1 including a source of reminder data for checking the reminder identifier.

15. The web site of claim 14 wherein the reminder data includes a cost of the professional service.

16. The web site of claim 1 including a source of reminder data for supplementing the reminder identifier.

17. A method for providing professional services comprising the steps of:

providing a database;

receiving a plurality of reminder identifiers through a web page;

determining a reminder date and a client identifier from each of the plurality of reminder identifiers;

storing the reminder identifiers, reminder dates and client identifiers on the database;

querying the database by the values attributed to each reminder date to retrieve a reminder identifier and a client identifier; and

associating the retrieved reminder identifier with a professional service and preparing an electronic document with the retrieved client identifier for use in performing the professional services.

18. The method of claim 17 further comprising the steps of:

providing a source of reminder data; and

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using the reminder data to verify the accuracy of the reminder identifier.

19. The method of claim 17 further comprising the steps of:

providing a source of reminder data; and

using the reminder data to supplement the reminder identifier.

20. The method of claim 17 further comprising the step of:

generating a report web page for reporting the reminder identifiers stored on the database.

U.S. PATENT NO. 6,182,078

1. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

software executing on said computer for automatically generating a form based on the retrieved client reminder;

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a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

2. The device of claim 1 wherein the form is an email message.

3. The device of claim 2 wherein the form is a web page.

4. A device for automatically delivering professional services comprising:

a computer;

a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

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a forms database containing a plurality of forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a form;

software executing on said computer for automatically merging the date and the client information with the form;

a communication link between said computer and the Internet; and

software executing on said computer for automatically transmitting the form through said communication link.

5. The device of claim 4 where in the form is an email message.

6. The device of claim 4 wherein the form is a web page.

7. A device for automatically delivering professional services comprising:

a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

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software executing on said computer for automatically generating a form and a notice based on the retrieved client reminder, the notice containing a URL;

a web server;

software executing on said computer for automatically transmitting the form to said web server and for automatically transmitting the notice; and,

software executing on said web server for automatically transmitting the form when the URL is activated.

8. The device of claim 7 when the notice is an email message.

9. A method for automatically delivering professional services comprising the steps of:

providing a computer;

providing a database containing a plurality of client reminders, each of the client reminders including a date field having a value attributed thereto;

querying said database by the values attributed to each client reminder date field to retrieve a client reminder;

generating a form from the retrieved client reminder;

establishing a communication link between said computer and the Internet; and

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transmitting said form through said communication link.

10. The method of claim 9 where in the generating step further comprises generating an email message.

11. The method of claim 9 wherein the generating step further comprises generating a web page.

AFFIDAVIT OF SERVICE

SUPREME COURT OF THE UNITED STATES

No.:

-----X

COMPUTER PACKAGES, INC.,

Petitioner,

v.

WHITSERVE, LLC, and
WESLEY W. WHITMYER, JR.,

Respondents.

-----X

STATE OF NEW YORK)

COUNTY OF NEW YORK)

I, Cristina E. Stout, being duly sworn according to law and being over the age of 18,
upon my oath depose and say that:

I am retained by Counsel of Record for *Petitioner*.

That on the 4th day of January, 2013, I served the within *Petition for a Writ of
Certiorari* in the above-captioned matter upon:

GENE S. WINTER
ST., ONGE, STEWARD, JOHNSTON & REENS
986 Bedford Street
Stamford, CT 06905

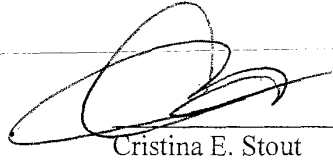
by depositing three copies of same, enclosed in a post-paid, properly addressed wrapper,
in an official depository maintained by the United States Postal Service, via priority mail.

That on the same date as above, I sent to this Court forty copies of the within
Petition for a Writ of Certiorari and the three hundred dollar filing fee check through the
United States Postal Service by Express Mail, postage prepaid.

All parties required to be served have been served.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 4th day of January, 2013.



Cristina E. Stout

Sworn to and subscribed before me this 4th day of January, 2013.



Elias Melendez

Elias Melendez
Notary Public, State of New York
No. 24-4799681
Qualified in Kings County
Commission Expires Aug. 31, 20 14

#245294



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SUPREME COURT OF THE UNITED STATES

No.

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COMPUTER PACKAGES, INC.,

Petitioner,

v.

WHITSERVE, LLC, and
WESLEY W. WHITMYER, JR.,

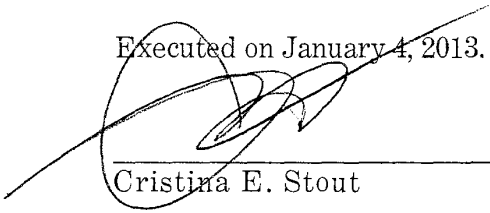
Respondents.

-----X
CERTIFICATE OF COMPLIANCE

As required by Supreme Court Rule 33.1(h), I certify that the document contains 6,818 words, excluding the parts of the document that are exempted by Supreme Court Rule 33.1(d).

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 4, 2013.


Cristina E. Stout

Sworn to and subscribed before me
this 4th day of January, 2013.


Elias Melendez

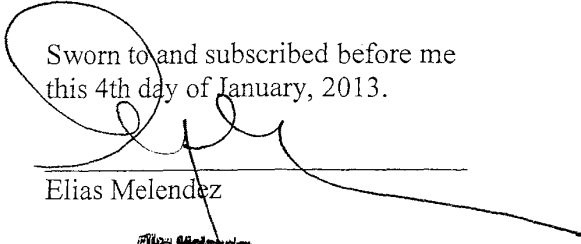

Elias Melendez
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Qualified in Kings County
Commission Expires Aug. 31, 2014
245294

EXHIBIT E

United States Patent [19]

Scully et al.

[11] **Patent Number:** **4,807,154**[45] **Date of Patent:** **Feb. 21, 1989**[54] **METHOD FOR DEVELOPING AUTOMATIC REPLIES IN AN INTERACTIVE ELECTRONIC CALENDARING SYSTEM**[75] Inventors: **Keith J. Scully**, Austin, Tex.;
Harinder S. Singh, Boca Raton, Fla.[73] Assignee: **International Business Machines Corporation**, Armonk, N.Y.[21] Appl. No.: **8,033**[22] Filed: **Jan. 29, 1987**[51] Int. Cl.⁴ **G06F 15/40**[52] U.S. Cl. **364/518; 364/521; 340/706**[58] Field of Search **368/29, 10, 43; 340/706, 717; 364/521, 200 MS File, 518**[56] **References Cited****U.S. PATENT DOCUMENTS**

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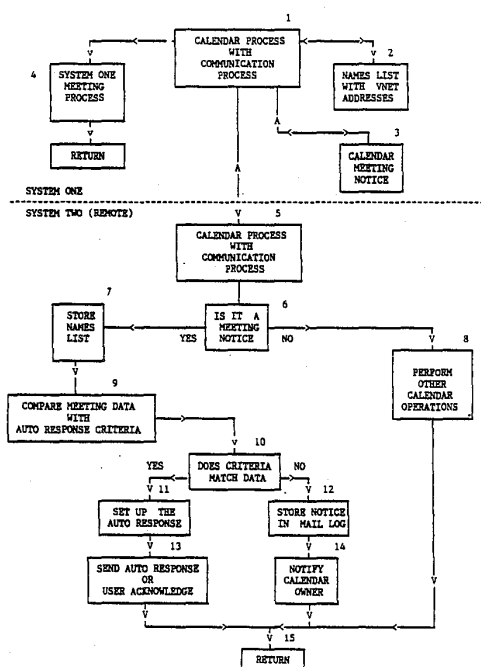
Primary Examiner—Gary V. Harkcom

Assistant Examiner—Phu Nguyen

Attorney, Agent, or Firm—Richard E. Cummins

[57] **ABSTRACT**

An electronic calendaring method for use in a data processing system that has a plurality of interactive type work stations (terminals or personal computers) connected directly or indirectly to a host processor. The method assists a calendar owner who receives a notice at his work station requesting his involvement in a future event that is being calendared by another calendar owner on the system, to develop different responses to the requests automatically based on criteria that are pre-established by the invitee/owner and data that is included in the invitation. The criteria may include such items as the name of the event originator, a specific ID of the event, a subject for the meeting, the place of the meeting, the time of the meeting or various combinations of the above. Responses which are automatically returned may include a confirmation, a rejection, or some qualified form of either, such as a tentative confirmation.

10 Claims, 4 Drawing Sheets

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Feb. 21, 1989

Sheet 1 of 4

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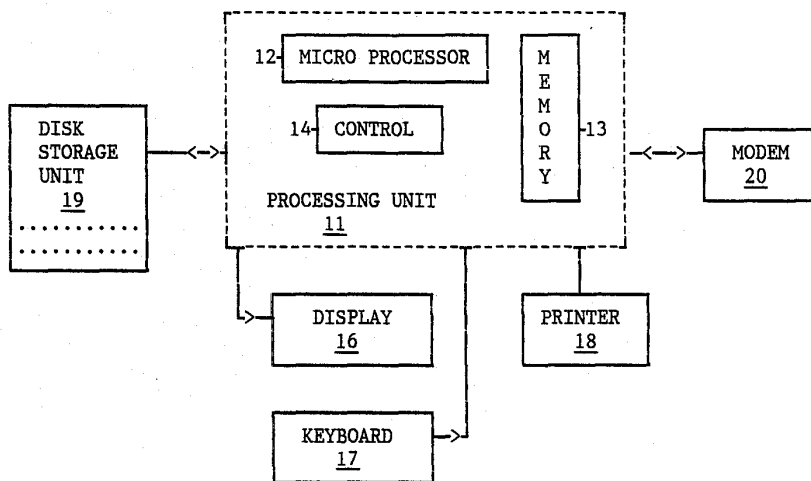


FIG. 1

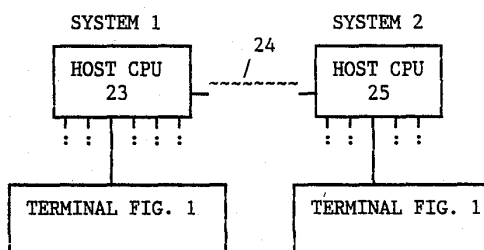


FIG. 2

U.S. Patent**Feb. 21, 1989****Sheet 2 of 4****4,807,154**

 ENTER THE RESPONSE INITIATOR(S) (Pick one or more)

 MEETING NAME : _____
 MEETING CALLERS' NAME: _____
 USER ID: _____
 SYSTEM ID: _____
 USER DEFINED FIELD: _____
 USER DEFINED PRIORITY: _____

 ENTER THE RESPONSE _____
 0 = No Action
 1 = Confirmed (will attend)
 2 = Tentative (may attend)
 3 = Not Attending
 4 = User Acknowledge (acknowledge invitation)
 5 = Alternate (the response is for an alternate)

ENTER THE ALTERNATE:

 NAME: _____
 USER ID: _____
 SYSTEM ID: _____
 POSTAL ADDRESS: _____

 PF1=Help PF3=Cancel PF11=Add One Line
 PF9=File PF12=File and Display the next Auto Response Template

FIG. 3

MOVE THE CURSOR TO EACH SELECTION OR KEY	THE ITEM DIRECTLY AND HIT ENTE
	Month Year
1. Calendar Entry, Meeting,	1 2
Appointment, Trigger,	3 4 5 6 7 8 9
Note, Vacation,	10 11 12 13 14 15 16
Holiday, Offsite,	17 18 19 20 21 22 23
Not Normal Work Hours	24 25 26 27 28 29 30
	31
2. View Select	Month Year
	1 2 3 4 5 6
3. Composite Calendar	7 8 9 10 11 12 13
	14 15 16 17 18 19 20
4. Conference Room	21 22 23 24 25 26 27
	28 29 30
5. Automatic Response	
Command: _____	
PF1=Help PF2=Return to System	

FIG. 4a

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MOVE THE CURSOR TO EACH SELECTION OR KEY THE ITEM DIRECTLY THEN HIT ENTER
 Classification List: 1 Meeting 2 Appointment 3 Offsite 4 Vacation 5 Holiday
6 Note 7 Not Normal Work Hours

CLASSIFICATION: 1 (Select one classification number from the above list)
 USER DEFINED FIELD _____ (8 characters)

PRIORITY 02 (1=highest,10=lowest)

EVENT IDENTIFIER: D35 MEETING A1

MEETING/APPOINTMENT INFORMATION:

Date 10/07/86 Start Time:1:15 PM End Time: 5:00 PM

Date 10/09/86 R2 Start Time:8:30 PM End Time: 5:00 PM

(Rx after Date will repeat the event at the same time, x number of days)

Names List : D35 NAMES A1

Caller : TOM ROBERTS

Subject : 1987 Budget

Place : Conference Room 128F

Details : _____

PF1=Help PF3=Cancel PF5=Send Notice PF6=Begin Search
 PF8=Next Screen(Security, Status, Trigger) PF9=File PF11=Add One Line

FIG. 4b

MOVE THE CURSOR TO EACH SELECTION OR KEY THE ITEM DIRECTLY AND HIT ENTER

SECURITY: Public Shared Private

(pick one)

STATUS: Tentative Confirmed

(pick one)

TRIGGER: Message Audio Process

(All three may be picked)

Date: 10/07/86 Time: 1:00 PM

Date: 10/09/86 Time: 8:00 AM

(PF11 will scroll and add additional Date Lines while on the Date line)

(Rx after Date will repeat the event at the same time, x number of days)

Names List: D35/AUSVM1 (Enter The Notification List VNET Address)

Message : The department meeting starts in 15 minutes

(PF11 will add one line)

Process : INVEST01/AUSVM1 Enter The Process VNET Address

Pick up these calculations before the Budget Meeting

TRIGGER FIXED OR FLOAT? Fixed Float

(pick one)

Float with Event Identifier: D35 MEETING A1

(If this event moves, the trigger will be moved to the same relative time)

PF1=Help PF3=Cancel PF5=Send Notice PF6=Begin Search
 PF7=Previous Screen PF8=Next Screen PF9=File PF10=Add One Line

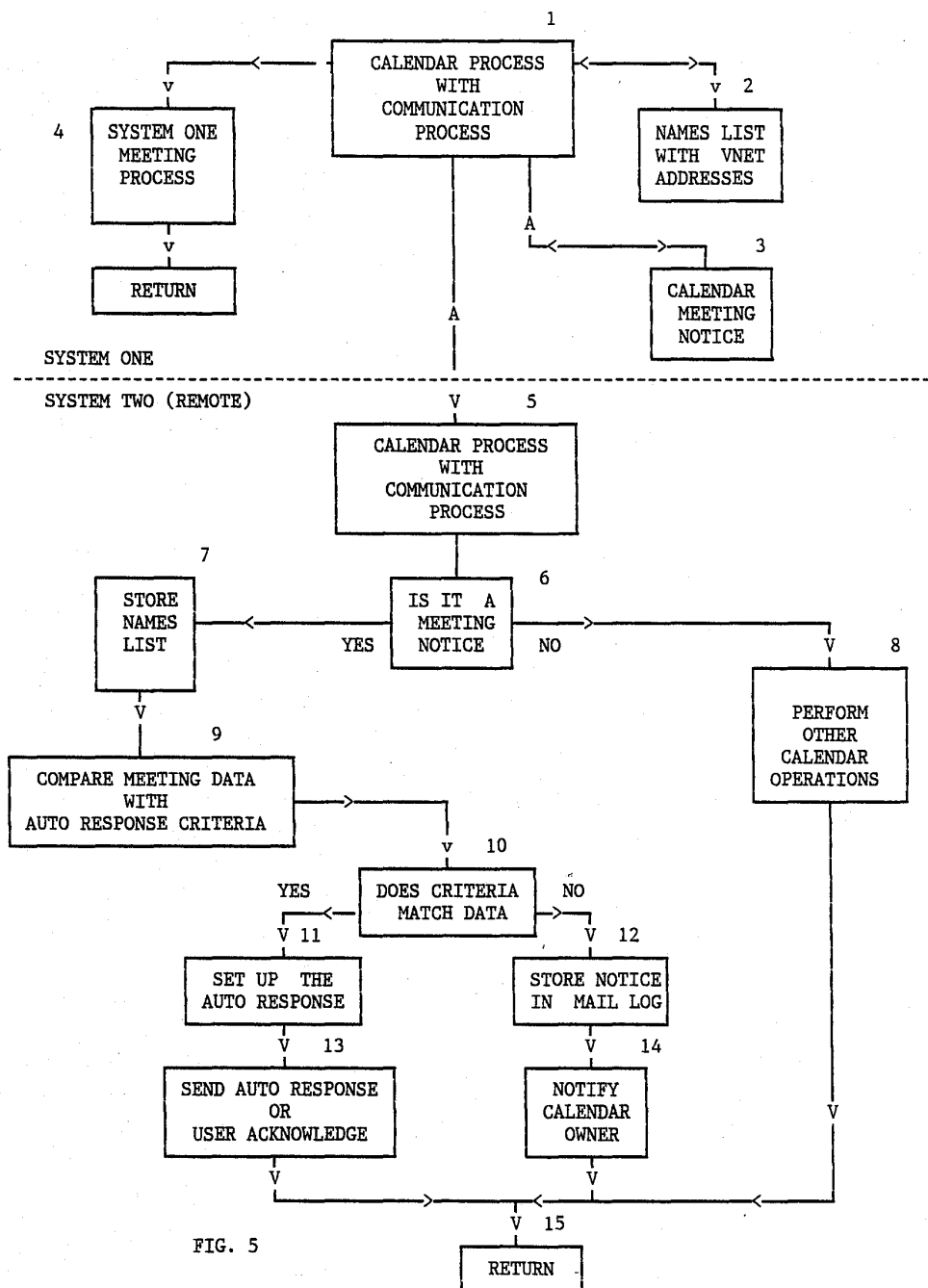
FIG. 4C

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METHOD FOR DEVELOPING AUTOMATIC REPLIES IN AN INTERACTIVE ELECTRONIC CALENDARING SYSTEM

FIELD OF INVENTION

This invention relates in general to electronic calendaring methods, and in particular, to a calendaring method in which replies to requests from other calendar owners to participate in a future calendar event are generated automatically, based on criteria pre-established by the receiving calendar owner or by default criteria established by the calendaring method.

CROSS-REFERENCES TO RELATED APPLICATIONS

1. Co-pending application Ser. No. 008,034 filed concurrently herewith, entitled "Method For Concurrently Displaying Entries From a Plurality of Different Electronic Calendars Based on Interactively Entered Criteria," and assigned to the assignee of the present application is directed to an electronic calendaring method in which a calendar owner can display a set of calendar entries from different calendars which have an interrelationship that the user defines by data that is entered into the system interactively.

2. Co-pending application Ser. No. 008,039 filed concurrently herewith, entitled "Electronic Calendaring Method to Establish Calendar Floating Triggers for Calendared Events and Processes" and assigned to the assignee of this application is directed to an electronic calendaring method in which a calendar owner can selectively trigger a predefined action and response to detecting one or more criteria related to the calendar event that has previously been defined and entered into the system.

3. Co-pending application Ser. No. 008,249 filed concurrently herewith, entitled "Method For Automatically Reconciling Entries on Two Copies of Independently Maintained Electronic Calendars," and assigned to the assignee of this application is directed to an electronic calendaring method in which a calendar owner who keeps a detached personal copy of his master calendar can automatically reconcile the calendar entries that have been made on each calendar copy, independently of the other since the last time the detached copy was made and interactively resolve calendar event conflicts.

4. Co-pending application Ser. No. 008,038 filed concurrently herewith, entitled "Electronic Calendaring Method Which Provides for Automatic Assignment of Alternates In Requested Events," and assigned to the assignee of this application is directed to an electronic calendaring method in which a calendar owner who receives a request to participate in a calendar event originated by another calendar owner, and currently being calendared by that owner, can establish an automatic response which reflects the assignment of an alternate to the event based on the relationship of the information that accompanies the request and criteria that the calendar owner has pre-established for each potential alternate.

5. Co-pending application Ser. No. 008,036 filed concurrently herewith, entitled "Electronic Calendaring Method for Automatic Confirmation of Resource Availability During Event Calendaring", and assigned to the assignee of this application is directed to an electronic calendaring method in which a calendar owner, when

calendaring an event such as meeting, which requires, in addition to a meeting room, such articles as a projector, video conferencing equipment, etc., automatically receives confirmation that requested articles are available and reserved for the calendared meeting event.

BACKGROUND ART

The prior art has disclosed a number and variety of interactive electronic calendaring systems and method. The objective of all of these systems is primarily to assist the person who, for a number of different reasons, maintains a calendar of future events containing various information about the event at entry points on the calendar which relate to the time of the event.

The increase of personal computers and intelligent workstations in recent years has made it possible for calendar owners to establish and maintain their calendars on these interactive type data processing systems.

Two general types of interactive electronic calendaring systems have thus evolved in the art. In one type of calendaring system, the owner of the calendar is generally also the user of the workstation and that workstation is generally not a part of a larger network. Generally, in these types of systems, the calendar functions involve presenting a screen to the user representing day calendar divided into a number of time periods or time slots. Each period is capable of displaying a limited amount of text that the user enters. In some systems, the day calendar can scroll vertically to present more time periods to the user or horizontally to present longer text entries. The operator can generally "page" forward or backward and, in most arrangements, can display a requested date. These calendaring arrangements generally do not limit the type of event that is calendared nor the terminology employed at any of the entry points and, to that extent, function in the same manner as conventional manual calendars or appointment books. The electronic calendaring method and systems do have an advantage over the prior art manual calendaring of events in that the user generally has the ability to scan a time span involving a large number of days and identify calendared events quite rapidly.

The other type of calendaring arrangement that has developed in the prior art involves multi-user environments having a large number of terminals or workstations which are generally part of a larger communication network that has been established to permit the users to interact with each other and with data maintained on the data processing system. In this environment, a user at a terminal or workstation can send a message to one or more of the other users on the network and is notified when the addresses has received and read the message.

In most of these environments, each user generally maintains a calendar, and in many of these environments the reason for the interaction with each other quite often generally involves reference to respective calendars. A considerable amount of time is therefore spent in many organizations, with people checking and rearranging their calendars to accommodate various events such as meetings, presentations, etc. In this environment, the calendar systems and method have progressed to the point where a person who is calling a meeting can at least review within the constraints that the security system dictates, the calendars of other users on the system that he intends to invite to a meeting, to determine whether a given time period is available on

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the respective calendars of the perspective attendees. However, once the meeting time is set and the prospective participants notified of the data, time, and subject of the meeting, each participant must update his own electronic calendar and reply to the meeting request. While the system can facilitate the request and reply message process, it is sometimes less frustrating when a negative reply has to be transmitted to merely use the telephone to arrive at another mutually convenient time. As a result, a considerable amount of time and effort is spent by calendar owners replying to requests for participation in events that are being calendared by other persons.

The present invention provides an electronic calendaring method in which the above defined problems of the prior art systems are eliminated. In order to minimize the time and effort involved by calendar owners in replying to requests for participation in a calendared event initiated by other calendar owners on the network, the present invention provides an electronic calendaring method in which the reply may be developed automatically without intervention of the calendar owner.

SUMMARY OF THE INVENTION

In accordance with the present invention, the calendaring method provides an automatic reply to a request by another calendar owner for participation in a calendar event by establishing a plurality of categories for calendar entries which must be used by each calendar owner on the network. Calendar categories are needed so that calendaring information can be interchanged in a common way. The calendared categories are assigned priority level and each calendar owner is permitted to define the criteria to be employed in developing the automatic reply to request received from another owner for participation in an event being calendared by that owner.

The calendar process permits a calendar owner that wants to schedule a meeting with other calendar owners on the network to determine a time slot when all meeting participants are available. Co-pending cross referenced application Ser. No. 008,034 discloses a method which establishes a composite calendar which represents, for example, a list of free periods or time slots that are unscheduled or scheduled with events whose category has been assigned a lower priority than some selected priority which the originator of the meeting has established. The time span of the composite calendar is selected by the originator and would correspond to a time during which the meeting should take place. A time period is selected from the composite calendars developed for each individual that is to attend the meeting and the meeting notice is sent to each perspective participant. The method then automatically updates the addressees calendars with the meeting request. A reply is developed automatically and returned to the meeting originator.

The reply that is developed automatically is assigned a category since it is a calendar entry on the addressees calendar. The nature of the reply and category is initially based on system defaults, but each calendar owner is given the ability to preempt the system default for the replay and establish other reply categories based on data contained in the request fulfilling criteria pre-established by the receiving calendar owner. The calendar owner, for example, may arrange to reply to a specific requestor e.g., his manager, by always replying with the

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category that confirms his attendance at the requested meeting. Other criteria are also allowed.

It is therefore an object of the present invention to provide an improved electronic calendaring method.

A further object of the present invention is to assist owners of electronic calendars in scheduling calendared events which involve participation of a number of other calendars owners.

A further object of the present invention is to provide an improved electronic calendaring method in which a reply by a calendar owner to a request to participate in an event being calendared by another calendar owner is developed automatically and communicated back to the other calendar owner without any manual intervention.

A still further object of the present invention is to provide an electronic calendaring method in which a calendar owner can establish an automatic reply to other calendar owners meeting requests, the nature and content of which is depended upon information contained in the meeting request other than the time of the meeting.

Objects and advantages, other than those mentioned above, will become apparent from the following description when read in connection with the drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a block diagram of an interactive data processing terminal in which the method of the present invention may be advantageously employed.

FIG. 2 is a block diagram of the network of terminals of the type shown in FIG. 1.

FIG. 3 illustrates the display screen employed in the present invention for obtaining data that is used in developing an automatic reply.

FIGS. 4a through 4c illustrate display screens that are employed in connection with the method of the present invention for entering information interactively into the system during the event calendaring process.

FIG. 5 is a flow chart illustrating various detailed steps of the improved electronic calendar method involved in developing an automatic reply.

BRIEF DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 1 illustrates the functional components of an interactive type data processing terminal on which the electronic calendaring method of the present invention may be advantageously employed. The terminal comprises a processing unit 11 which includes a microprocessor block 12, a semiconductor memory 13, and a control block 14 which functions to control input/output operations in addition to the interaction between the micro processor block 12 and the memory unit 13.

The terminal further includes a group of conventional peripheral units including a display device 16, a keyboard 17, a printer 18, a disk storage unit 19, and a modem 20. Since the details of the above described functional blocks form no part of the present invention and can be found in the prior art, only a brief functional description of each block is set forth, along with a description of their interactions, sufficient to provide a person of ordinary skill in the art with a basis of understanding applicants' improved electronic calendaring method.

Processing unit 11 corresponds to the "system unit" of a personal computer system such as the IBM XT or IBM AT type systems. Unit 11 is provided with an operating system program which may be one of the

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many versions of DOS (Disk Operating System) which is normally employed to run the systems. The operating system program is stored in memory 13 along with one or more application programs that the user has selected to run. Depending on the capacity of memory 13 and the size of the application programs, portions of these programs, as needed, may be transferred to memory 13 from the disk storage unit 19 which may include, for example, a 30 megabyte hard disk drive and a diskette drive. The basic function of the disk storage unit is to store programs and data that are employed by the system and which may readily be transferred to the memory unit 13 when needed. The function of the diskette drive is to provide a removable storage function for entering programs and data into the system, and a vehicle for storing data in a form that is readily transportable for use on other terminals or systems.

Display device 16 and keyboard 17 together provide for the interactive nature of the terminal, in that in normal operation, the interpretation that the system gives to a specific keystroke by the operator depends, in substantially all situations, on what is being displayed to the operator at that point in time.

In some situations, the operator, by entering commands into the system, causes the system to perform a certain function. In other situations, the system requests the entry of certain data, generally by displaying a prompt type of menu/message screen. The depth of the interaction between the operator and the system varies by the type of operating system and the application program, but is a necessary characteristic of terminals on which the method of the present invention may be employed.

The terminal shown in FIG. 1 further includes a printer 18, which functions to provide hard copy output of data developed or stored in the terminal. Lastly, the modem 20 functions to transfer data from the terminal of FIG. 1 to a host system through one or more communication links which may be a commercial type link or a dedicated communication link.

FIG. 2 illustrates a network 21 of interactive type workstations of the type shown in FIG. 1. As illustrated, the network includes a plurality of terminals which are interconnected with each other and to a host central processing unit 23, which in turn is connected via communication link 24 to a second host processing unit 25, which also connects to another network 26 of interactive workstations. Functionally, the system operates to allow one terminal to communicate to one or more other terminals using established communication protocols, so that the various serially connected communication links are transparent to the operator. Such systems are well known in the art, and are currently in extensive commercial use. Since these communication links per se are not part of the present invention, only those details that are necessary for an understanding of the calendaring method of the present invention will be described. It should therefore be assumed in the following description, that each workstation on the network has a system node address and a "post office" address, and that to simplify the description, there is only one individual assigned to each node on the network. It should further be assumed that conventional communication services are provided by the system, such as directory listings of individual calendar owners and shareable resources such as meeting rooms, etc., which require scheduling.

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The system shown in FIG. 2 processes information as various types of data objects such as text data objects, graphic data objects, and calendar data objects. Each of these data objects are represented by a datastream which comprises a series of structured fields.

A calendar object datastream has the following sequence of structures.

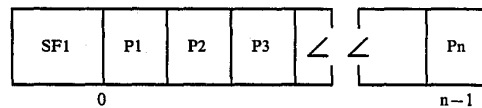
```

Begin Document (BDT)
Begin Page (BPG)
Begin Calendar Data (BCL)
Calendar Data Descriptor (CDD) (Optional)
Calendar Data SF (CAD)
Calendar Structures (COCA)
End Calendar Data (ECL)
End Page (EPG)
End Document (EDT)

```

The format of the datastream for other type data objects contain the begin document, begin page, end page, and end document data structures. Structured fields corresponding to those listed above for a calendar object are also employed for other type objects.

A structured field is a self-describing entity which contains related groupings of parameter values and triplets. The structure field, as shown below, has two parts: the Structured Field Introducer and the Structured Field Content.



The structured field begins with a Structured Field Introducer.

The syntax and semantics of the Structured Field Introducer are defined by the architecture which governs the datastream in which the structured field is found. The Structured Field Introducer contains as the first two bytes a parameter which defines the length of the structured field. It also contains an identification code which uniquely identifies the structured field.

The Structure Content portion of each structured field contains structures and triplets, which give the structured field its meaning. Parameters in the triplets define the attributes of the Calendar Object. Every parameter has a value either explicitly appearing in a triplet, inherited from a control structure in the datastream's hierarchy, or implicitly defined as a default. This default may also be the alternate action value. Every structure is either required or optional. A required structure appears in the object because the function of that structure is required and for proper performance of the function an value is necessary.

An optional structure need not appear in the object either because the function of that structure is not required or because the function is required, but default values are acceptable for all parameters.

As shown above, a calendar data (CAD) structured field (SF) precedes the actual calendar data. A calendar data descriptor (CDD) SF can precede the CAD SF to provide formatting information for the data that follows.

Calendar data comprises named data structures and named triplets which are composed of parameters. A parameter is a variable to which a value is assigned.

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Parameters can be optional or required. Parameters are also classified as terminal or non-terminal. A terminal parameter is merely the last parameter in a string of parameters.

A parameter can have one of three types of values assigned.

1. NUM—This is a number or a numerical value.
2. COD—This is a code assigned a specific meaning.
3. BST—This is a bit string of binary elements, each of which is usually independent of the other.

In the following discussion it will be assumed that a byte comprises 8 bit positions numbered 0–7 from left to right, with position 0 being the high order position. Bit position 0 represents 2^{**7} (2 to the 7th power), while bit 7 represents 2^{**0} (2 to the 0 power).

The various calendar structured fields and calendar triplets are defined by the following type of table.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
n-m	name	type	v	x	www	

In the figure:

BYTES refers to the position, indexed on zero.

NAME is the name by which reference is made to the

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by another calendar owner, it is necessary to describe in detail the data structures that are employed by the system in the process of an owner calendaring an event on his calendar. In the preferred embodiment, calendar entries are classified into a number of different types. Since the system contemplates interchanging calendar data throughout the system, including terminals that are remotely connected, such as those shown in FIG. 2, entry types and presentation language are controlled by a defined architecture.

While the same display screen may be employed to solicit the data for a number of different event types, the data structures and triplets, required or optional, will vary by event type.

While some of the structures to be described and the triplets associated with these structures are not directly involved in the "Automatic Response" function, they have been described in order to provide background for the reader and a basis for a comprehensive understanding of the claimed process and its relationship to the processes described and claimed in the cross-referenced application.

The various calendar object data structures to be described are preceded by a calendar data structure shown below.

CALENDAR DATA (CAD) STRUCTURE FIELD (SF)						
BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
0-1	Structured Field Length	NUM	8	32767	2	R
2	Structured Field Type 1	COD	X'D3'	X'D3'	1	R
3	Structured Field Type 2	COD	X'EE'	X'EE'	1	R
4	Structured Field Type 3	COD	X'5B'	X'5B'	1	R
5	Flags	BST	0	0	1	R
6-7	Segment Sequence Number	NUM	0	32767	2	R
8-7 + n	Calendar Data		*	*	n	R

*Values depend on the Calendar Object structure and triplet specification.

parameter.

TYPE denotes the syntax of the parameter by "type,"

The architected type NUM, COD, and BST were described earlier.

LGTH denotes the length of the field in terms of the exact number of bytes or the maximum number of bytes permitted.

OPT refers to the optionality of the parameter's appearance in the structure or triplet:

O means that the parameter is optional.

R means that the parameter's appearance is required.

If a required parameter is missing, an exception condition exists. The alternate action is to ignore the structure, self-defining field, or triplet to which the missing parameter belongs.

Syntactically descriptive material below the figure indicates what additional restrictions apply to the structure or triplet defined by the figure.

Calendar structures and calendar triplets which are relevant to the present invention will be described using the above-described format. After the structures are described, the display screens that are presented to calendar owners by the system in order to solicit information when a calendar owner wants to perform a calendaring function will be described. A flow chart setting forth the detailed steps of the method of the present invention will then be described in connection with the program listing of pseudocode that will assist persons skilled in programming interactive terminals to implement the method of the present invention.

Since the Automatic Response function operates in response to an invitation to an event being calandered

The Calendar Data SF (CAD) identifies the data as calendar data and specifies the length of the calendar data. The Calendar Data SF contains, for example, up to 32,767 bytes of calendar structures and calendar triplets (called "Calendar Data"). Calendar data varies with the function employed by the generator of the object.

MAJOR CALENDAR STRUCTURES DESCRIPTION

This section describes the major structures that are involved in the present invention. The structures consist of a mixture of calendar triplets. The triplets are described in the Calendar Triplets Description section that follows this section.

The calendar structures are preceded by the Calendar Data structured field (CAD). Parameter values specified by the system can be overridden by parameters specified in calendar data. For example, the Code Page of Symbols for Displaying and Printing Data.

In the structure description, bits are consecutively numbered from left to right starting with zero.

The format for all of the structures is the same. The format is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
0-1	LENGTH	NUM				R
2-3	TYPE	COD				R
4-n	TRPLT1 to					R

-continued

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
TRPLTn						

where
LENGTH=A two-byte value of the number of bytes in this structure including byte zero.
TYPE=A two-byte binary number that designates a specific structure function.
TRPLT1 TO TRPLTn=Calendar Structure Triplets.
The length of structures can vary depending on the number of triplets included.
If the length excludes all or part of an optional parameter in a triplet, then the value for that parameter and any parameters that follow are no changed; that is, the LENGTH field is used as specified.
If a structure is invalid or unsupported, an exception is raised.
If the length field excludes a required parameter or triplet, an exception is raised.
If a structure contains an invalid or unsupported parameter or triplet, an exception is raised.

MEETING (MTG) STRUCTURE

The meeting structure is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
0-1	Structure Length	NUM	*	32767	2	R
2	Structure Type 1	COD	X'D3'	X'D3'	1	R
3	Structure Type 2	COD	X'85'	X'85'	1	R
4-3 + n	Meeting Triplets		*		n	R

*Values depend on the triplet specification.

The MTG structure provides the fields necessary to interchange meeting information, the scheduling of meetings and requests for meeting information. It also provides a specific search classification to allow building a composite calendar for a specified list of calendar owners.

The Valid MTG Triplets are listed below and defined in detail in the following section.

ERROR ACTION (EAC)—An EAC triplet may occur in any sequence and is optional.

STRUCTURE ID (SID)—The SID specifies the ID for the meeting. An optional SID may be included to identify a Trigger (TRG) associated with the meeting.

DATE AND TIME (DTT)—The DTT triplet provides the meeting time(s) and date(s) and is required. DTT triplets must occur in ascending time(s) and date(s). A meeting that occurs at non-sequential times can be scheduled by using more than one DTT triplet specifying the required times.

NAME (NME)—Network Address (NAD), Postal Addresses (PAD) and User Status (UST) triplets may be used to provide user status and addresses for a named item. NME triplets and associated NAD, PAD and UST triplets may be included for both the CALLER (meeting owner) and the ARRANGER (meeting arranger). The Name Status byte specifies whether or not NAD, PAD and UST triplets follow the Name triplet which is optional.

USER STATUS (UST)—The UST triplet provides the role and status for the person names in the NME

triplet. This triplet is only valid when it follows a NME triplet and is optional.

NETWORK ADDRESS (NAD)—The NAD triplet provides the network address for the person named in the NME triplet and is optional.

POSTAL ADDRESS (PAD)—The PAD triplet provides the the mailing address for the person named in the NME triplet and is optional.

EVENT STATUS (EVS)—The EVS specifies the meeting status and is optional.

TIME STAMP (TMS)—Only one TMS triplet is allowed in the MTG structure and it is optional.

ENTRY SECURITY (ESL)—If this control is omitted the security level is PUBLIC. Only one ESL triplet is allowed in the MTG structure and it is optional.

SET CODED GRAPHIC CHARACTER SET GLOBAL ID (SCG)—The SCG selects the character set and code page for characters contained in the triplets that follow the SCG in the calendart structure. The Network Address character set and code page are not affected by the SCG. The active code page is restored automatically at the end of the calendar structure.

SUBJECT (SBJ)—The SBJ triplet contains character data describing the meeting subject. One SBJ triplet is allowed in each MTG structure and it is optional.

PLACE (PLC)—The PLC triplet contains character data describing the meeting location. One PLC triplet is allowed in each MTG structure and is optional.

DETAIL (DTL)—The DTL triplet contains character data describing the meeting. If the Code Page or character Set is changed in the meeting description, the DTL triplet must be ended, a SCG triple inserted, and another DTL triplet built. It is optional.

RSVP (RVP)—The RVP specifies the need for an attendance response from the meeting invitee and it is optional.

If a MTG structure is received without all required triplets, an exception exists. The default action is to skip the structure and continue processing. If a MTG structure contains an unsupported or invalid triplet, an exception exists. The default action is to skip the triplet and continue processing. If a MTG structure contains a DTT triplet with data and times not in ascending order or if the optional SCG triplet occurs at a position that does not immediately precede a triple with text data (DTL, SBJ, PLC), an exception exists. The default action, in both cases, is to ignore the triplet and continue processing.

NAMES LIT (NML) DATA STRUCTURE

The names list data structure is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
0-1	Structure Length	NUM	*	32767	2	R
2	Structure Type 1	COD	X'D3'	X'D3'	1	R
3	Structure Type 2	COD	X'8A'	X'8A'	1	R
4-3 + n	NML Triplets		*	*	n	R

*Values depend on the triplet specification.

The NML structure provides the fields to support a name, associated addresses and status. The NML may contain a list of items, such as an invitees list, by concatenating Name (NME), Address (ADR) and User

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Status (UST) sequences. The list may include one or more than one name and associated information.

The following Valid NML Triplets for the NML DS were described in connection with the MTG structure.

ERROR ACTION, STRUCTURE ID, TIME STAMP, ENTRY SECURITY, SET CGCSGID, NAME, USER STATUS, NETWORK ADDRESS and POSTAL ADDRESS.

The Date and Time (DTT) triplet is not valid.

The following triplet, however, is optional for the Names List data structure.

NAMES LIST TYPE (NLT)—Only one NLT triplet is allowed in the Names List structure. The NLT triplet specifies the type of data contained in the Names List. If the NLT is not specified, the list contains a list of names and or status and/or addresses that are not necessarily in one of the categories defined by the NLT triplet.

If an NML structure is received without a Structure ID triplet, an exception exists. The default action is to skip the structure and continue processing. If an NML structure contains an unsupported or invalid triplet, and exception exists. The default action is to skip the triplet and continue processing. Each sequence of the Names List structure triplets must occur in the listed order.

Optional triplets may be omitted from any sequence. If a NML structure is received with a triplet out of sequence, an exception exists. The default action is to skip the structure and continue processing. The above-described processing for handling exceptions is standard for most structures and therefore can be assumed for the following items.

VIEW SELECT (VSL) DATA STRUCTURE

The View Select data structure is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
0-1	Structure Length	NUM	*	32767	2	R
2	Structure Type 1	COD	X'D3'	X'D3'	1	R
3	Structure Type 2	COD	X'95'	X'95'	1	R
4-3 + n	VSL Triplets		*	*	n	R

*Values depend on the triplet specification.

The VSL structure provides a way to request calendar views for specific category(s) and timespan(s).

The Valid VSL Triplets previously described include the ERROR ACTION (EAC), USER DEFINED FIELD (UDF) and DATE and TIME (DTT) triplets.

The following triplet is also optional and valid.

ENTRY CATEGORY (ECT)—The ECT selects the category(s) for the calendar entry(s) to be selected in the view request. Only one ECT is allowed in a View Select structure. When more than one category is selected in the ECT, the view returned will contain the selected categories. If both the ECT and UDF triplet are omitted, all entries in the selected timespan will be returned.

The DTT triplet dates and times must occur in ascending order. The first DTT processed must provide the earliest data and time block. The last DTT processed must provide the latest date and time block. The first DTT also provides the begin date and time for the timespan selected.

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When the optional ECT triplet is present, the VSL triplets must occur in the order ECT, DTT.

AUTO RESPONSE (ARS) DATA STRUCTURE

The Auto Response data structure is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
0-1	Structure Length	NUM	*	32767	2	R
2	Structure Type 1	COD	X'D3'	X'D3'	1	R
3	Structure Type 2	COD	X'72'	X'72'	1	R
4-3 + n	Auto Response Triplets		*	*	n	R

The ARS structure provides the fields necessary to interchange automatic response information. It allows the use of a network address(NAD). A Meeting or Appointment Structure ID (SID), A Priority (UDF) or a User Defined Field (UDF) specification to initiate an automatic response.

The valid ARS triplets include the following: ERROR ACTION (EAC), SET CGCSGID (SCG), STRUCTURE ID (SID), NAME (NME), USER STATUS (UST), NET WORK ADDRESS (NAD), POSTAL ADDRESS (PAD), TIME STAMP (TMS), ENTRY SECURITY (ESL), USED DEFINED FIELD (UDF), RESPONSE (RSP).

If a NAD, a SID, A PRIORITY UDF, or A UDF, received as part of an invitation and request to attend an event being calendared, satisfy the established Auto Response criteria, the response specified by the RSP triplet is sent automatically.

A separate ARS structure is required for each different set of ARS criteria.

A NAD triplet may also be used to identify the individual that will receive an established automatic response.

CALENDAR TRIPLETS DETAIL DESCRIPTION

This section describes in detail the set of calendar triplets that are the building blocks designed to be used by the Calendar Structures of the system including those described in the previous section.

The previous section indicated where these triplets are valid.

The triplets are described in alphabetic order.

In the triplet descriptions, bits are consecutively numbered from left to right starting with zero.

The format for all of the triplets is the same and is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
0	LENGTH	NUM				R
1	KEYWORD	COD				R
2-n	PARM1 to PARMn					R

where

LENGTH=A one-byte value of the number of bytes in this triplet including byte zero.

KEYWORD=a one-byte binary number that designates a specific triplet function.

PARM1 to PARMn=Parameters containing the triplet settings.

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The length of some triplets can vary depending on the number of parameters specified. If the length excludes an optional parameter or part of an optional parameter, then the value for that parameter and any parameters that follow are not changed; that is, the LENGTH field is used as specified. If a triplet is received in which the length exceeds the maximum value required to include all parameters, an exception is raised since the additional values are considered to be unsupported parameters. Also, if the length field excludes a required parameter, an exception is raised.

Since bytes 1 and 2 of all the triplets are identical, they are not shown for each triplet. Only bytes 2 through n will be described.

NETWORK ADDRESS (NAD) TRIPLET DATA STRUCTURE

The NAD triplet data structure is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-n	Network Address	COD	*	*	16	0

The NAD triplet provides the Network Address for the time named in the (NME) triplet.

The NAD Parameters include,
NETWORK ADDRESS—This is the person's Network Address.

Bytes 2 through 9=USER ID
BYTES 10 through 17 1=NODE ID

POSTAL ADDRESS (PAD) TRIPLET DATA STRUCTURE

The PAD triplet data structure is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-n	Postal Address	COD	*	*	1-253	0

The PAD triplet provides the Postal Address for the item named in the (NME) triplet.

The PAD Parameters include,
POSTAL ADDRESS—This is the person's Postal Address. Valid values are valid characters in the active or selected code page.

PROCESS ID (PRD) TRIPLET DATA STRUCTURE

The PRD triplet data structure is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-n	Process	COD	*	*	1-16	0

The PRD triplet specifies the ID of a process such as a computer program.

The PRD Parameters include,
PROCESS—A 1 to 16 byte identifier. Valid values are valid characters in the active or selected code page.

CALENDAR SCOPE (CSC) TRIPLET DATA STRUCTURE

The CSC DS is shown below.

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BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-3	Calendar Begin Day	NUM	1	366	2	R
4-5	Calendar Begin Year	NUM	-32K	32767	2	R
6-7	Calendar End Day	NUM	1	366	2	R
8-9	Calendar End Year	NUM	-32K	32767	2	R

The CSC triplet defines the timespan supported by the calendar.

CSC Parameters

CALENDAR BEGIN DAY—The day of the year that the calendar timespan begins.

CALENDAR BEGIN YEAR—This is the begin year for the timespan supported in the calendar.

CALENDAR END DAY—The day of the year that the calendar timespan ends.

CALENDAR END YEAR—This is the end year for the timespan supported in the calendar.

CALENDAR TYPE (CTP) TRIPLET DATA STRUCTURE

The CTP DS is shown below

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Type	NUM	0	5	1	R

The CTP triplet specifies the calendar type. It is only valid when used in the Calendar Profile. It defines how to present an entire calendar.

CTP Parameters

TYPE—Specifies the calendar type such as Gregorian, Julian, Muhammadan, Jewish, Lunar, Shop.

DATE AND TIME (DTT) TRIPLET DATA STRUCTURES

The DTT DS is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Daylight Saving Indicator	NUM	0	1	1	R
3	Time Zone Indicator	NUM	-23	23	1	R
4-5	Begin Date Day	NUM	1	366	2	R
6-7	Begin Date Year	NUM	-32K	32767	2	R
8-9	Begin Time	NUM	0	86400	3	R
11-12	End Date Day	NUM	1	366	2	0
13-14	End Date Year	NUM	-32K	32767	2	0
15-17	End Time	NUM	0	86400	3	0
18-254	Additional Date/Time Combinations					

The DTT triplet specifies the dates and times for the associated triplets in the calendar structure.

DTT Parameters

DAYLIGHT SAVINGS INDICATOR—Specifies Daylight Savings Time is active. This parameter, in conjunction with the Time zone, identifies the time

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zone and allows the correct time zone label (i.e., CST or CDT) to be applied to the time.

TIME ZONE INDICATOR—The Time Zone Indicator is the displacement from Greenwich Mean Time (GMT) for the time specified. Values are specified in half hours from GMT to handle half-hour zones.

BEGIN DATE DAY—The day of the year when the event begins.

BEGIN DATE YEAR—The year the event begins.

BEGIN TIME—Begin Time specifies the event start time in seconds.

END DATE DAY—The day of the year when the event ends.

END DATE YEAR—The year the event ends.

END TIME—End Time specifies the event stop time in seconds.

Date is specified as a combination of two, two byte parameters (day of the year and year). Time is local time in seconds beginning at midnight. One Begin Date and Begin Time is required in each DTT triplet. The Begin and End, Date and Time sequence may be repeated if additional begin and end date and begin and end times are needed.

If more dates and times then can be sent in one DTT triplet are needed, additional DTT triplets can be included in the Calendar Structure. The only restriction is the byte structure length.

DETAIL (DTL) DATA STRUCTURE

The DTL DS is as follows.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-1+n	Character String	COD	*	*	n	R

The DTL triplet contains character data in the active or selected code page.

DTL Parameters

CHARACTER STRING—Text information associated with a calendar entry. Values are valid characters in the active or selected code page.

If the CGCSGID (SCG) is changed in a character string, the DTL triplet must be ended and another one built after inserting the SCG.

ENTRY CATEGORY (ECT) DATA STRUCTURE

The ECT DS is shown below.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-5	Category	BST			4	R

The ECT triplet provides a specific category for unavailable time and for open time on a calendar. The ECT triplet is used to specify calendar entry category(s) in requests and replies for both the Date and Time Map (DTM) and the View Select (VSL) structure.

ECT Parameter

CATEGORY—A four byte, bit encoded value. Combinations of more than one category bit are allowed. The categories provide both request and response categories for both Date and Time Map (DTM) and View Select (VSL) calendar structures. Bits 0 through 20 may be used for both DTM and VSL categories. Bits 21 through 24 are used in View Select only.

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If they are used in a Date and Time Map, they are ignored.

BIT SIGNIFICANCE ENCODING

- 0=Holiday (General)—The owner will work on this holiday.
- 1=Holiday (Confirmed)—A confirmed calendar owner holiday.
- 2=Holiday (Tentative)—A tentative calendar owner holiday.
- 3=Vacation (Confirmed)—Confirmed calendar owner vacation.
- 4=Vacation (Tentative)—Tentative calendar owner vacation.
- 5=Offsite (Confirmed)—The calendar owner will not be at the normal work location and will not be available.
- 6=Offsite (Tentative)—The calendar owner has tentatively scheduled an activity away from the normal work location.
- 7=Not Normal Work Hours—Categorizes hours that are not normally worked.
- 8=Confirmed Meetings (Not Attended)—The calendar owner will not attend.
- 9=Confirmed Meetings (Attended)—The calendar owner will attend.
- 10=Confirmed Meetings (May Attend)—The calendar owner's status for this meeting is tentative.
- 11=Tentative Meetings (Not Attended)—The calendar owner will not attend.
- 12=Tentative Meetings (Attended)—The calendar owner will attend this meeting if it becomes confirmed.
- 13=Tentative Meetings (May Attend)—The calendar owner's status for this meeting is tentative.
- 14=Confirmed Appointments (Not Attended)—The calendar owner will not attend.
- 15=Confirmed Appointments (Attended)—The calendar owner will attend.
- 16=Confirmed Appointments (May Attend)—The calendar owner's status for this appointment is tentative.
- 17=Tentative Appointments (Not Attended)—The calendar owner will not attend.
- 18=Tentative Appointments (Attended)—The calendar owner will attend this appointment if it becomes confirmed.
- 19=Tentative Appointments (May Attend)—The calendar owner's status for this appointment is tentative.
- 20=Non-Scheduled Time—Identifies open time on the calendar. This category is most effective if used along.
- 21=Date and Time Only (VIEW SELECT ONLY)—Selects date and time for all categories not specifically requested in a View Select.
- 22=Private Entry (VIEW SELECT ONLY)—Only date and time may be provided in the response to a calendar View Select request.
- 23=Calendar Comments (VIEW SELECT ONLY)—Character data entries.
- 24=Triggers (VIEW SELECT ONLY)—Entries that start a process and/or notify.
- 25-31=Reserved.

If all Category bits are set to one in a request for a Date and Time Map, the information returned is meaningless because it includes both scheduled and non-scheduled time. The "Non-Scheduled Time" bit should

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be used carefully if it is used with other bits to obtain meaningful data. The "Not Normal Work Hours" bit should also be used carefully for similar reasons.

ENTRY CLASSIFICATION (ENC) DATA STRUCTURES

The END DS is as follows

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-3	Classification	BST			2	R

The ENC triplet provides a specific Classification code for a calendar entry that occupies a block of time.

ENC Parameters

CLASSIFICATION—A two byte bit encoded value. Combinations of more than one Classification Bit are not allowed.

BIT SIGNIFICANCE ENCODING

0=Holiday—(General)NThe owner will work on this holiday.

1=Holiday—(Confirmed) A confirmed calendar owner holiday.

2=Holiday—(Tentative) A tentative calendar owner holiday.

3=Vacation—(Confirmed) Confirmed calendar owner vacation.

4=Vacation—(Tentative) Tentative calendar owner vacation.

5=Offsite—(Confirmed) The calendar owner will not be at the normal work location and will not be unavailable.

6=Offsite—(Tentative) The calendar owner has tentatively scheduled an activity away from the normal work location.

7=Not Normal Work Hours—Identifies times that the calendar owner is normally not at work.

ERROR ACTION (EAC) DATA STRUCTURE

The EAC DS is as follows

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Action	BST			1	R

The EAC triplet specifies the action required when an exception is processed.

EAC Parameter

ACTION—The error action specification.

BIT

0=0—(DEFAULT) Report the exception, take a default action and continue.

0=1—Ignore the exception, take a default action and continue

An EAC triplet may occur at any place in a calendar structure. If an error action is not specified, the default is to report the error, take a default action and continue.

The Error Action specified in a calendar structure remains active only until the structure end, at which time, the default Error Action becomes active.

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EVENT STATE (EVS) DATA STRUCTURE

The EVS DS is as follows.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Event Status	BST			1	R

The EVS triplet provides status for an event such as an appointment or meeting.

EVS Parameter

EVENT STATUS—The status of an event.

BIT SIGNIFICANCE ENCODING

0=Confirmed (the meeting time has been established)

1=Tentative (the meeting is tentative)

2=Cancelled (the meeting was cancelled)

3=Postponed (the new date and time are not set)

4=Rescheduled (the meeting has been rescheduled)

5=Marked for Archive (entry will be saved for reference)

NAME (NME) DATA STRUCTURE

The NME DS is as follows.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Name Type	BST			1	R
3	Associated Triplets	BST	*	*	1	R
4-n	Item Name	COD	*	*	1-251	R

The NME triplet specifies a name of either a person or a calendary.

NME Parameters

NAME TYPE—Specifies the name type. Bits 1 and 2 are mutually exclusive. Only one of these bits may be set to 1.

BIT SIGNIFICANCE ENCODING

0=(0-Name is a personal name). (1-Name is a calendar name).

1=1—Name is a primitive name not unique in a network

2=1—Name is a descriptive name unique in a network).

3-7=Reserved

ASSOCIATED TRIPLETS—Bits set to 1 specify that User Status (UST), Network Address (NAD) and Postal Address (PAD) triplets may follow the NME triplet in any order.

0=A User Status (UST) triplet follows that specifies the named items role and status.

1=An Network Address (NAD) triplet follows that specifies the named item's network address(s).

2=A Postal Address (PAD) triplet follows that specifies the named item's postal address(s)

ITEM NAME—Specifies the name of a person or calendar. Values are valid characters in the active or selected code page. The maximum name size is 251 bytes.

The item named by the NME triplet may be further identified using the User Status (UST), the Postal Address (PAD) and the Network Address (NAD) triplets.

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The NME triplet must be preceded with an SCG triplet if the characters used are not on the active code page.

NAMES LIST TYPE (NLT) DATA STRUCTURE

The NLT DS is as follows.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-3	List Type	BST			2	R

The NLT triplet specifies the type of data contained in a list.

NLT Parameter

LIST TYPE—Specifies the list type. Combinations of bits are allowed. and/or mail addresses.

BIT SIGNIFICANCE ENCODING

2=1 Name is a Nickname associated with a Network Address. 2-15 Reserved.

The lists may optionally contain postal addresses and user status. The NLT triplet described the list contents for specific list types. Lists containing the NLT are constrained to the specified contents. If the NLT is omitted the lists may contain any valid combination of names, user status and addresses.

PLACE (PLC) DATA STRUCTURE

The PLC DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-n	Location	COD	*	*	1-253	R

The PLC triplet specifies a location for an event such as a meeting or appointment. The location is described using text characters. The maximum location length is limited to 253 text bytes.

PLC Parameters

LOCATION—Location specifies the event location.

RESPONSE (RSP) DATA STRUCTURE

The RSP DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	RESPONSE	BST			1	R

The RSP triplet establishes a response that will be sent automatically as part of the AUTO RESPONSE data structure.

RSP Parameter

RESPONSE—Specifies what response will be sent. The Alternate indication may use any other bit

BIT SIGNIFICANCE ENCODING

0=No Action—Auto response is deactivated.

1=Confirmed—the invitee will attend.

2=Tentative—The invitee may attend.

3=Not Attending—The invitee will not attend.

4=User Acknowledge—The schedule request was received.

5=Alternate—The response is from the invitee's alternate.

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RSVP (RVP) DATA STRUCTURE

The RVP DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	RSVP	BST			1	R

The RVP triplet indicates that an attendance response is required.

RVP Parameter

RSVP—Specifies the need for a response to a meeting schedule request.

BIT SIGNIFICANCE ENCODING

0=No attendance response is required.

1=An attendance response is required using the NML structure.

SET CODED GRAPHIC CHARACTER SET GLOBAL ID (SCG) DATA STRUCTURE

The SCG DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-3	GCSGID	NUM	1	65534	2	R
4-5	CPGID	NUM	1	65534	2	R

The SCG triplet specifies the coded graphic character set global identification that is used to map subsequent text into presentable graphics.

The CGCSGID that is specified by the system selects the active Character Set and Code Page. If the CGCSGID is not specified the default Character Set and Code Page specified are used.

SCG Parameters

CGCSGID—Coded Graphic Character Set Global ID; a concatenation of 2 two-byte numbers. The first two bytes identify the Graphic Character Set Global ID (GCSGID) expressed as a binary value. The second two bytes identify the Code Page Global ID (CPGID) expressed as a binary value.

GCSGID—Graphic Character Set Global ID.

CPGID—Code Page Global ID.

GCSGID and CPGID are used to determine how coded text characters are translated to the graphic characters to be presented.

The SCG will only select a code page for the triplet that immediately follows it. If structures containing text characters on a code page that is different from the default code page are concatenated, a separate SCG is required preceding each structure.

The SCG has no affect on the NETWORK ADDRESS in the UDF triplet and the USER CODE in the UDF triplet.

STRUCTURE ID (SID) DATA STRUCTURE

The SID DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	ID Type	BST			1	R
3-n	Identifier	COD	*	*	n	R

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The SID triplet provides an identifier for calendar structures.

SID Parameters

ID TYPE—Specifies the ID type

BIT SIGNIFICANCE ENCODING

- 0=Entry ID—Identifies a calendar entry
- 1=Names List ID—Identifies a list of names
- 2=Trigger ID—Identifies a trigger
- 3=Profile ID—Identifies a calendar profile
- 4=Auto Response—Identifies an automatic response IDENTIFIER—1 to 44 character identifier.

The SID provides a correlation ID to accomplish calendar updates from an intelligent workstation to a host, to correlate responses to a meeting notice with the meeting names list and to correlate notification of a list of people associated with a meeting or a list.

SUBJECT (SBJ) DATA STRUCTURE

The SBJ DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2-n	Event Subject	COD	*	*	1-253	R

The SBJ triplet specifies the subject for an event. The subject is described using text character.

SBJ Parameters

EVENT SUBJECT—This parameter specifies the event subject.

TIME STAMP (TMS) DATA STRUCTURE

The TMS DS is as follows.

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Daylight Savings Indicator	NUM	0	1	1	R
3	Time Zone Indicator	NUM	-23	23	1	R
4-5	Begin Date Day	NUM	1	366	2	R
6-7	Begin Date Year	NUM	-32K	32767	2	R
8-10	Begin Time	NUM	0	86400	3	R
11	Network Address Length	NUM	0	128	1	O
12-n	Network Address	COD			~128	O

The TMS triplet specifies an entry's time zone, creation date and time and the entry creator's network address.

TMS Parameters

DAYLIGHT SAVINGS INDICATOR—Specifies Daylight Savings Time is active. This parameter, in conjunction with the Time Zone, identifies the time zone and allows the correct time zone label (i.e., CST or CDT) to be applied to the time.

TIME ZONE INDICATOR—The Time Zone Indicator is the displacement from Greenwich Mean Time (GMT) for the time specified. Values are specified in half hours from GMT to handle half hour zones.

BEGIN DATE YEAR—The year the event begins.

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BEGIN TIME—Begin Time specifies the event start time.

NETWORK ADDRESS LENGTH—The Network Address length

- 5 NETWORK ADDRESS—System address
 - Bytes 12 thru 19=USER ID—valid characters in CP256, CS930.
 - Bytes 20 thru 27=NODE ID—valid characters in CP256, CS930.
- 10 Bytes 28 thru 139=Reserved to support additional address.

USER DEFINED FIELD (UDF) DATA STRUCTURE

The UDF DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Priority	NUM	1	10	1	R
2-9	User Code	COD	*	*	1-8	R

The UDF triplet provides a priority and user defined field that is assigned by the calendar owner. The assigned code provides additional entry categories.

UDF Parameters

PRIORITY—A one byte field that specifies a priority value for a calendar entry. 1 is the highest and 10 is the lowest priority.

30 USER CODE—An eight byte user defined code.

USER STATUS (UST) DATA STRUCTURE

The USt DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Role	COD	0	7	1	R
3	Personal Status	COD	0	5	1	R

40 The UST triplet provides information regarding the person named in the Name (NME) triplet. It provides the named persons Role and Personal Status.

UST Parameters

45 ROLE—Specifies the persons role regarding the event.

VALUES

- 50 0=Caller—Person has called the event.
- 1=Arranger—Person is arranging the event.
- 2=Invitee (Default)—Person has been invited to the event.
- 3=Mandatory Invitee—Person who must attend the meeting.
- 4=Alternate—Person replacing an invitee for attendance consideration.
- 5=Additional Attendee—Person who is adding themselves to the distribution list associated with a group meeting.
- 6=Receives Copy—Person who receives event information.
- 7=Receives Blind Copy—Person who receives event information only, whose name will not appear on the distribution list.

PERSONAL STATUS—The status associated with the name.

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VALUES

- 0=No Action (no status has been received)
- 1=Confirmed (the person will attend)
- 2=Tentative (the person might attend)
- 3=Not Attending (the person will not attend)
- 4=User Acknowledge (received the invitation)
- 5=Alternate (the invitee will not attend, but an alternate may)

WORK TIMES (WTM) DATA STRUCTURE

The WTM DS is as follows:

BYTES	NAME	TYPE	MIN	MAX	LGTH	OPT
2	Daylight Savings Indicator	NUM	0	1	1	R
3	Time Zone Indicator	NUM	-23	23	1	R
4-6	Begin Time	NUM	0	86400	3	R
7-9	End Time	NUM	0	86400	3	R
10-254	Additional Begin/End Time Combinations					

The WTM triplet specifies the work times for an associated calendar. Time is local time in seconds beginning at midnight.

WTM Parameters

DAYLIGHT SAVINGS INDICATOR—Specifies Daylight Savings Time is active. This parameter, in conjunction with the Time Zone, identifies the time zone and allows the correct time zone label (i.e., CST or CDT) to be applied to the time.

TIME ZONE INDICATOR—The Time Zone Indicator is the displacement from Greenwich Mean Time (GMT) for the time specified. Values are specified in half hours from gmt to handle half hour zones.

BEGIN TIME—Begin Time specifies the time block begin in seconds.

END TIME—End Time specifies the time block end in seconds.

One Begin Time and End Time is required in each WTM triplet. The Begin and End Time sequence may be repeated if additional begin and end times are needed.

THE PROCESS OF CALENDARING EVENT

FIG. 3a is a screen that is displayed to the operator/calendar owner in response to the operator indicating to the system that he wants to calendar an event. This can be accomplished, for example, by selecting item 1 from the master menu shown in FIG. 4a. Assume that a meeting is scheduled at 10 a.m. on Thursday Oct. 7, 1986, and that the notice for the meeting is to be issued through the electronic calendaring system. The owner then enters the information into the system, employing the screens of FIGS. 4b and 4c. To identify the event type after selecting option 1 on screen 4a, the operator merely presses the inner key since the cursor has automatically been positioned at the event e.g., "meeting" on the screen of FIG. 3b. The next data entry as shown involves assigning a priority to this event. The value to be entered is a value from 1-10 as indicated on the line following the blank for the value. The function of the priority numbers to establish the relative importance of this event when viewed with regard to other commitments which are either planned or anticipated. This entry of a priority value is optional since the system will establish a default priority for the event according to

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some predetermined criteria which has been established for all calendar owners or alternately which gives you a unique default for each specific individual.

The assignment of a priority value to a calendar event either explicitly by the calendar owner or implicitly by the system is a necessary step in the view select process implementing in accordance with the method described and claimed in cross reference application Ser. No. 008,034. The function of the priority value is described in detail in that application.

The user defined field, as shown in FIG. 4b is not used in the present example. Its function is to provide a field which the user or the user community can employ for some predefined purpose. The event identifier is the official name of the meeting. The date and time of the meeting are entered next.

The next entry on the screen is the names list. All the persons that are invited to attend the meeting have been listed in a names list along with their user ID, network and/or postal addresses and that list is assigned a name. The information is stored in the names list data structure described earlier so that in the case of regularly scheduled meetings, the meeting caller only needs to identify the name of the names list.

The next entry is for the name of the person calling the meeting. The last two entries are to identify the subject of the meeting and its physical location, such as a conference room.

FIG. 4c is the last screen employed in calendaring an event. This screen allows an event to be assigned a security classification and to indicate if the meeting is tentative or confirmed. The remaining portion of the screen shown in FIG. 4c is for establishing a trigger reminder for the event which is the subject matter of cross reference application Ser. No. 008,034.

After all the data is entered defining the event, the calendar owner advises the system to send the meeting information that has just been entered to each of the individuals listed in the names lists. This is done in the example shown by keying the program function key PF5.

The data defining the meeting particulars that were entered into the system is stored in the appropriate data structures and triplets described earlier. These data structures are transmitted to each invitee on the system in accordance with the protocols established for the calendaring system and the inter-system communication protocols that can accommodate data interchange between two different calendaring systems.

The invitee calendar owner is required to respond to the meeting notice since every meeting notice contains an RVP triple indicating that a response is required.

If the invitee/owner has not established an automatic response for this notice, then the response must be entered manually. Any of the prior art methods for manually responding to a meeting notice by the invitee may be employed. For example, the screen employed for calendaring an event or one similar to that screen, may be presented to the invitee with the program function key programmed to enter the invitees' response. Alternately a special screen can be presented providing a response field for the event. The response that is entered is stored in the personal status field of the user status triplet that is associated with the invitees' name in the names list. That data structure is returned to the meeting caller and stored in the names list data structure for the identified meeting.

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It should be assumed in the following discussion that a calendar owner has decided for a number of reasons that invitations or requests for involvement in events being calendared by selected calendar owners or selected meetings and appointments or other criteria are to be responded automatically. In order to establish automatic responses, the calendar owner selects item 5 from the master menu shown in FIG. 4a. The auto response screen, shown in FIG. 3, is then presented. If the invitee decides that he will always attend the meetings that are identified by "D35 Meeting A1" then that ID is entered on the line in FIG. 3 following the legend Meeting Name.

The invitee also enters the response that he wants sent which, in accordance with the initial assumption, is that he will always attend. The data that is entered into the system interactively when the auto-response screen is being displayed is stored in the Automatic Response data structure ARS previously described. By pressing program function key PF12 a second set of data for an automatic response can be entered. The system is designed to accommodate a reasonable number of criteria sets. Entry of more than one criteria in frame 3 is interpreted by the system as a "logical and" situation in that a notice must contain all the criteria that was entered on the one screen before the response will be automatically dispatch.

The system is arranged so that the host maintains each calendar owner's calendar so that when the owner's workstation is not turned on, his calendar is still available to the other individuals on the system. When a meeting notice is sent to the invitee, the system first checks to see if that invitee/owner has established any automatic response entries. If the system finds that automatic response structures exist, then a comparison is made between the data contained in the meeting notice and the data entered as criteria in the auto-response data structure. Specifically, the meeting name i.e., the event identifier for the meeting notice, is compared against the data entered in the ARS data structure in the identifier field of the SID triplet. In a similar manner, the user status triplet associated with the names list identifies the meeting caller by the placement of a 0 in the row field of that triplet. The name of the meeting caller is then compared against the name and user status triplet associated with the ARS data structure, this name having been previously stored in this data structure when the invitee was entering criteria in the Automatic Response frame. When the comparison operation indicates a match, then the response stored in the personal status field of the User Status data structure associated with the ARS structure is sent to the meeting caller automatically.

The above-described operation has been summarized in the flow chart of FIG. 5.

The following listing of programming type statements in pseudo code is provided to enable those persons skilled in the art of programming interactive type systems to have a detailed understanding of the various steps that are involved in providing an automatic response in an electronic calendaring system.

The first section is directed to the process of establishing criteria by the calendar owner which will provide the automatic response to an invitation to attend a meeting being called by another calendar owner.

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-continued

```

1 .Select the Automatic Response in the master menu and hit
  enter
1 .ENDDO
1 .DO UNTIL
1 .Enter any combination of Meeting ID, Meeting Caller Name,
  User ID, System ID, Used Defined Field, and User Priority
2 .DO
2 .Select and enter a response number(0=No Response;
  1=Confirmed(Will Attend); 2=Tentative(May Attend);
  3=Not Attending; 4=User Acknowledge; 5=Alternate
2 .ENDDO

```

The following code is directed to the process of developing an automatic response to a meeting notice. It begins with the receipt of a meeting notice. The automatic response does not consider whether the meeting is tentative or confirmed if the calendaring method permits the meeting to be so classified. Both are handled in the same manner.

```

1 .Do
1 .Compare the received Meeting notice data to the
  Auto response criteria that is stored in the
  Automatic Response Structure
1 .ENDDO
1 .IF the established criteria matches meeting notice data
1 .THEN
  Set up the associated response in the Automatic Response
  Structure. Place the meeting notice data on the receivers
  calendar with the appropriate meeting status(confirmed or
  tentative)
  Establish the response status in the meeting's Names List
1 .Else place the meeting notice in the receivers mail queue and
  notify owner of meeting request
1 .ENDIF
1 .IF an automatic response other than User Acknowledge was
  setup
1 .THEN Send back the Automatic Response Structure to the
  Meeting Caller
1 .Else Send back a User Acknowledge
1 .ENDIF

```

While the invention has been shown and described with respect to a preferred embodiment, it should be understood that changes and modifications may be made therein without departing from the spirit of the invention or the scope of the appended claims.

We claim:

1. An electronic calendaring method for use in a data processing system having a plurality of interactive type work stations connected directly or indirectly to a host processing unit and in which a first calendar owner receives a response from a second calendar owner as a result of a meeting notice sent through said system to said second calendar owner at the time said first owner is calendaring a meeting type event, said method selectively developing said response automatically, based on criteria that are pre-established by said second owner, said method comprising the steps of;

(a) establishing a first data structure for use by said system during the calendaring of an event by said first owner including a plurality of fields for storing data relevant to said event,

(b) establishing a second data structure for use by said system in developing an automatic response upon receiving said meeting notice from said first owner including a plurality of predefined fields for storing data entered into said system by said second owner including (1) criteria type data and (2) response type data,

1 .DO

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(c) comparing said criteria type data stored in said second data structure to data stored in said first data structure when said meeting notice is received by said second owner, and

(d) developing said response automatically when said comparing step indicates a predetermined relationship between one or more of said criteria type data and the corresponding respective data stored in said first data structure.

2. The method recited in claim 1 in which said step of developing said response automatically includes the step of responding to said first calendar owner in accordance with the response data stored in said second data structure.

3. The method recited in claim 2 in which each said workstation includes a display and keyboard and further including the step of displaying to said second calendar owner a criteria screen to assist said second owner to interactively enter said criteria type data and said response type data into said system through said keyboard.

4. The method recited in claim 3 further including the step of displaying to said first calendar owner a screen to assist said first owner to interactively enter said data relevant to said event through said keyboard.

5. The method recited in claim 4 further including the step of storing said criteria type data and said response type data entered into said system by said second owner in said plurality of predefined fields of said second data structure.

6. The method recited in claim 5 further including the step of storing said data relevant to said event entered

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into said system by said first owner in said plurality of fields of said first data structure.

7. The method recited in claim 6 in which said step of establishing said first data structure includes the step of establishing an event identifier field for storing a unique event identifier for an event at the time said event is being calendared and said step of establishing said second data structure further includes the step of establishing one of said predefined fields for storing said event identifier as one of said criteria type data.

8. The method recited in claim 7 in which said step of establishing said first data structure further includes the step of establishing a "Meeting Caller Name" field for storing the name of the individual calling the meeting that is being calendared, and said step of establishing said second data structure further includes the step of establishing one of said predefined fields for storing the name of the meeting caller as one of said criteria type data.

9. The method recited in claim 8 in which said step of entering response type data into said system further includes the step of selecting one of a plurality of predefined responses, each of which reflects said second owner's intention relative to attending said meeting.

10. The method recited in claim 9 further including the step of displaying to said second owner a plurality of criteria screens to assist said second owner to interactively enter more than one set of criteria type data and said response type data into said system through said keyboard to permit the development of automatic responses based on different sets of criteria.

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EXHIBIT F



US005548506A

United States Patent [19]**Srinivasan**[11] **Patent Number:** **5,548,506**[45] **Date of Patent:** **Aug. 20, 1996**

[54] **AUTOMATED, ELECTRONIC NETWORK
BASED, PROJECT MANAGEMENT SERVER
SYSTEM, FOR MANAGING MULTIPLE
WORK-GROUPS**

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[21] Appl. No.: **210,172**

[22] Filed: **Mar. 17, 1994**

[51] Int. Cl.⁶ **G06F 17/50**; G06F 17/60;
G06F 15/163

[52] U.S. Cl. **364/401 R**; 364/226.7;
364/468.01; 395/200.01; 395/200.12; 395/200.15;
395/919; 395/923; 395/926

[58] Field of Search 364/401; 395/600,
395/200.01, 200.03, 200.06–200.18, 919,
923, 926

[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Thomas G. Black

Assistant Examiner—Hosain T. Alam

[57] **ABSTRACT**

Design and implementation of an 'Auto Multi-Project
Server System', which automates the tasks of Project Man-
agement Coordination, for organizational work-group team
members. The 'Auto Multi-Project Server', referred to as
AMPS, consists of a core piece of software running on a host
server computer system and interacting with a messaging
system such as electronic mail, fax etc. Once the AMPS
system is configured for the work environment, all interac-
tions with it by work-group team members is via messages.
First the AMPS system compiles multi-project plans into a
multi-project database, and tracks the ownership of projects,
tasks and resources within the plans. Second the AMPS
system performs automatic checking of resource requests, if
resource availability limits are exceeded then resources are
re-allocated to projects based on priorities, and project plans
are accordingly changed Third the database is processed
periodically to send out reminder follow-ups and project
status reports. Fourth the databases are continuously updated
based on status changes reported by work-group members.
These four steps are continuously repeated enabling an
automated method of multi-project management for organi-
zational work-group team members.

9 Claims, 10 Drawing Sheets

The 'Auto Multi-Project Management' Process

Objective: Architecture drawing to show the different components for implementing the automatic multi-project
server, to use in an automatic multi-project management process.

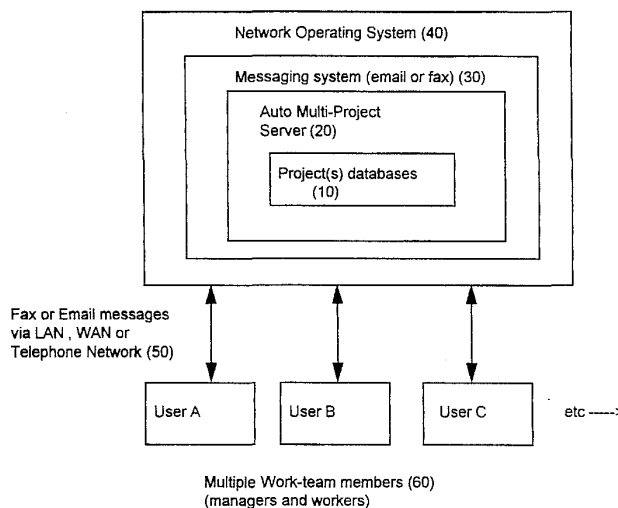


Fig 1. The ‘Auto Multi-Project Management’ Process

Objective: Architecture drawing to show the different components for implementing the automatic multi-project server, to use in an automatic multi-project management process.

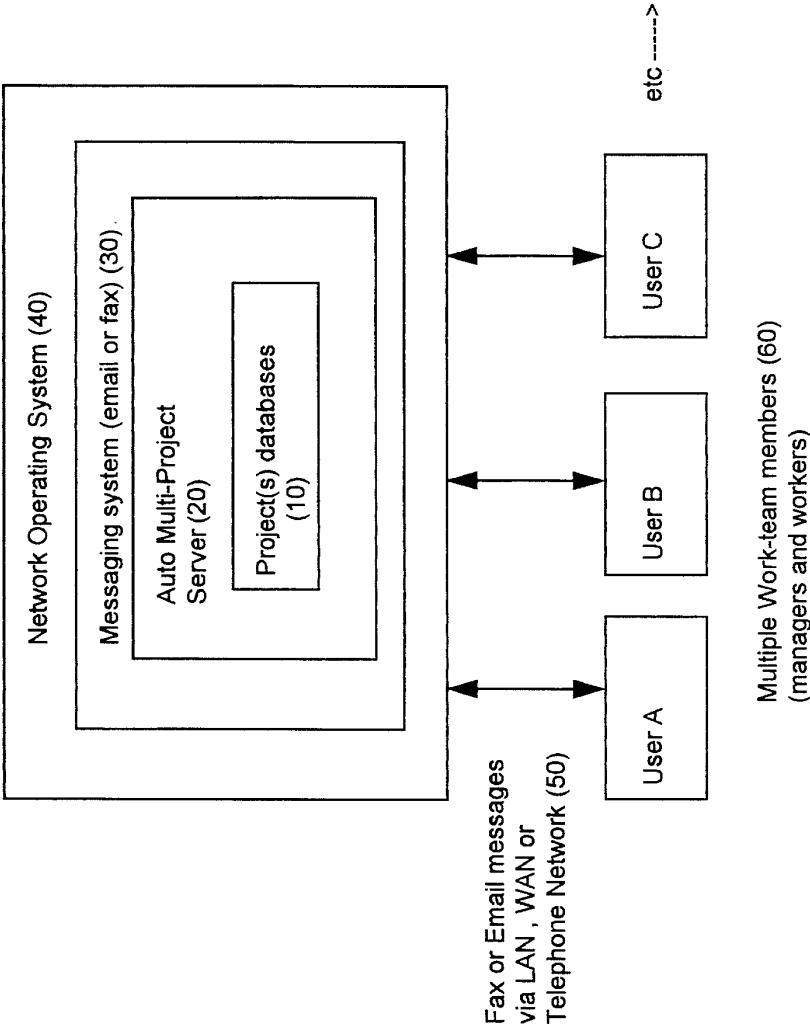
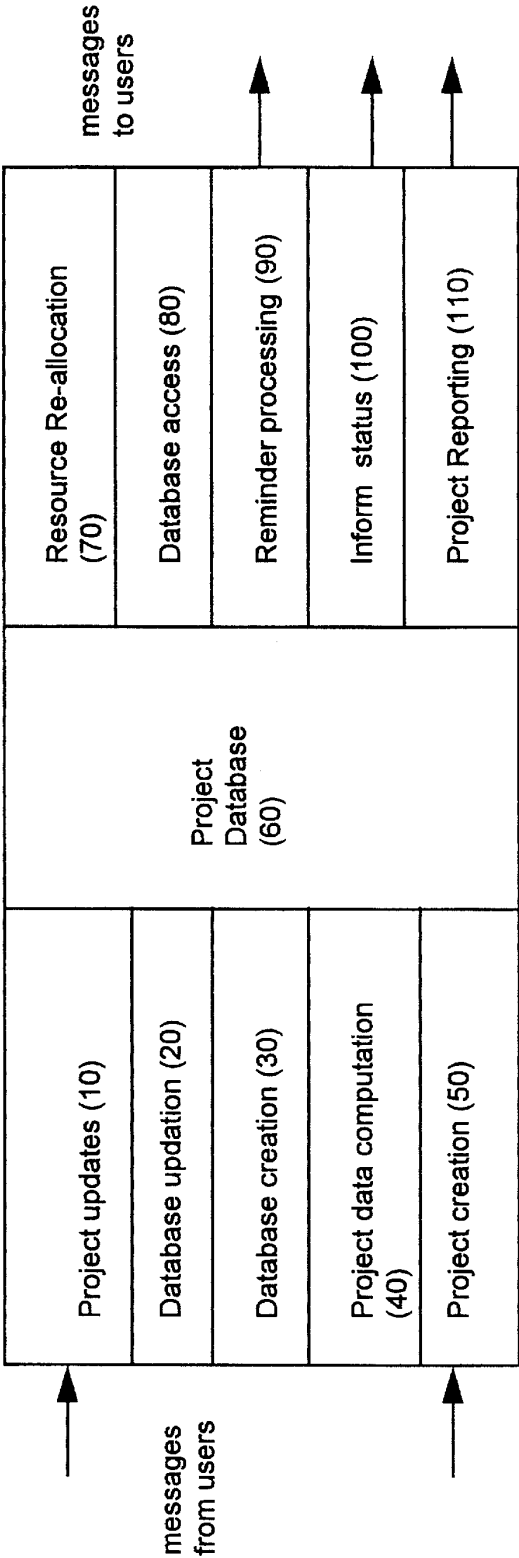


Fig 2 - Internal Architecture of the 'Auto Multi-Project Server'

Objective: Show the internal components of the 'Auto Multi-Project Server'.



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Fig 3 - Project database example

User Name > xxx
Password > 12345678

Project Description (1 line) > xxxxxx
Project Id No (upto 3 characters) > 3456
Project Start Date (m/d/y) > 2/20/1994
Project Leader Name > Sesh Srinivasan
(optional) Project Leader Email Id > sesh@xyz.abc.com
(optional) Default Reminder Frequency (d,b,w,f,m) >
(Optional) Week-ends (sat,sun,mon,tue,wed,thu,fri) > sat sun
(optional) Holidays (m/d/y) >

Task Id (numbers only) > 1
Task Description (1 line) > procure pipes
Task Status (pending/started/completed/stuck) > started
Task Leader Name > tl1
Task Leader Email Id > tl1@xxx.yyy.com
Task Duration (d,w,m or 0) > 3d
OR Task Completion Date (m/d/y) >
(optional) Task Reminder Frequency (d,b,w,f,m) >
(optional) Task Leader Can Change Schedule (y/n) > y
(optional) Parent Task Id >

Immediate Predecessor Task Id >
Dependency Type (fs,ff,ss) >
Time Lag (d,w,m) >

Resource name (include units) > Feet of copper pipes
Resource budget (numbers only) > 2000
Resource consumed > 500

Task Id (numbers only) > 2
Task Description (1 line) > install pipes
Task Status (pending/started/completed/stuck) > pending
Task Leader Name > tl2
Task Leader Email Id > tl2@abc.pqr.com
Task Duration (d,w,m or 0) > 1w
OR Task Completion Date (m/d/y) >
(optional) Task Reminder Frequency (d,b,w,f,m) >
(optional) Task Leader Can Change Schedule (y/n) > y
(optional) Parent Task Id >

Immediate Predecessor Task Id > 1
Dependency Type (fs,ff,ss) > fs
Time Lag (d,w,m) > 1d

Resource name (include units) > plumber man days
Resource budget (numbers only) > 10
Resource consumed >

Fig 4 - 'Build' Program Flowchart

Objective: To compile together data on inter-dependent tasks for each project and build a reference database
To compute completion dates based on resource limits and inter-project dependencies.

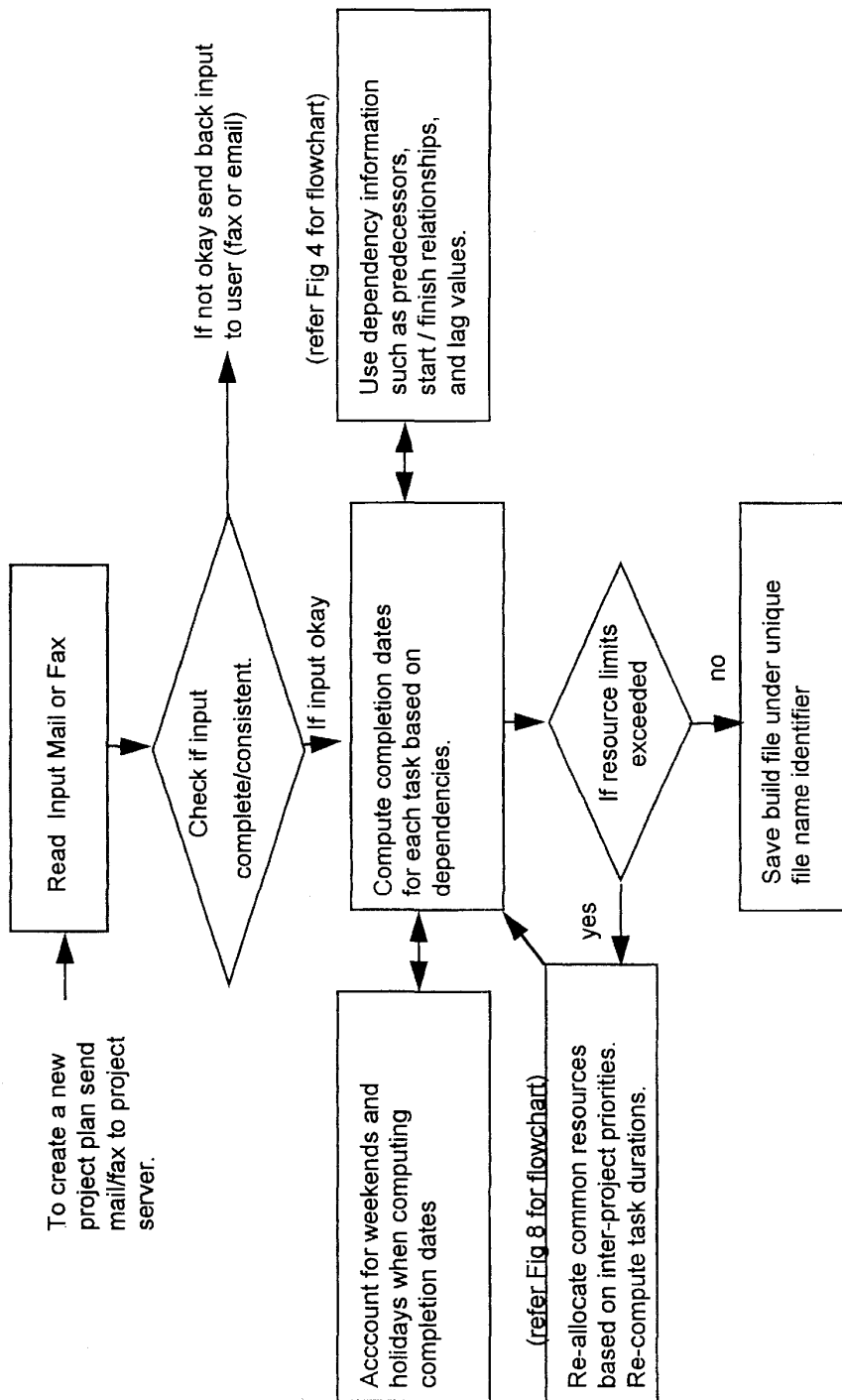


Fig 5 - Dependency Computation Flowchart

Objective: To compute task start and finish dates, based on relationship to dependent predecessors.

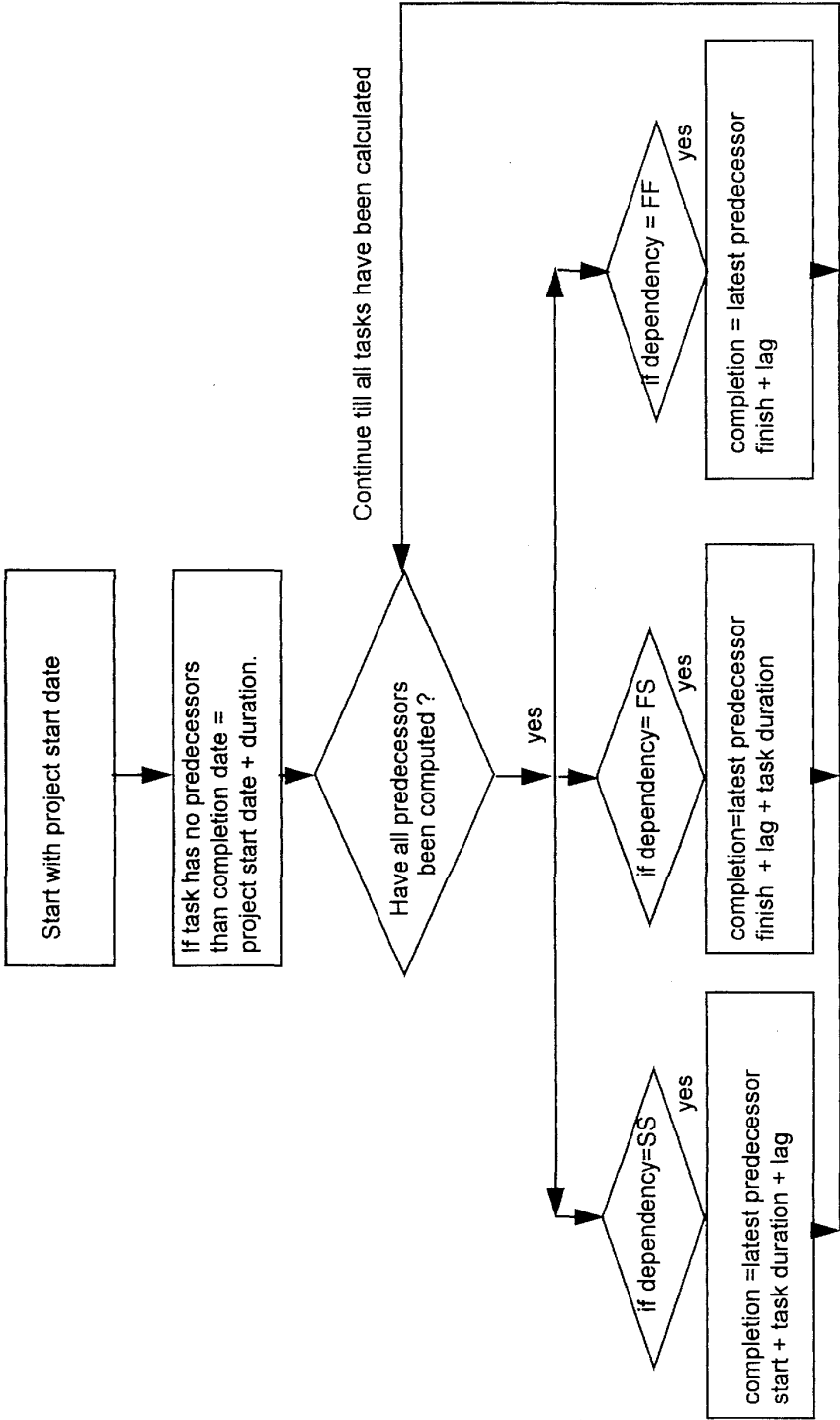


Fig 6 - 'Reminder' Program Flowchart

Objective:
To track pending tasks and remind task owners on a pre-determined frequency on when to start/finish their tasks.
To update task owners on status of dependencies.

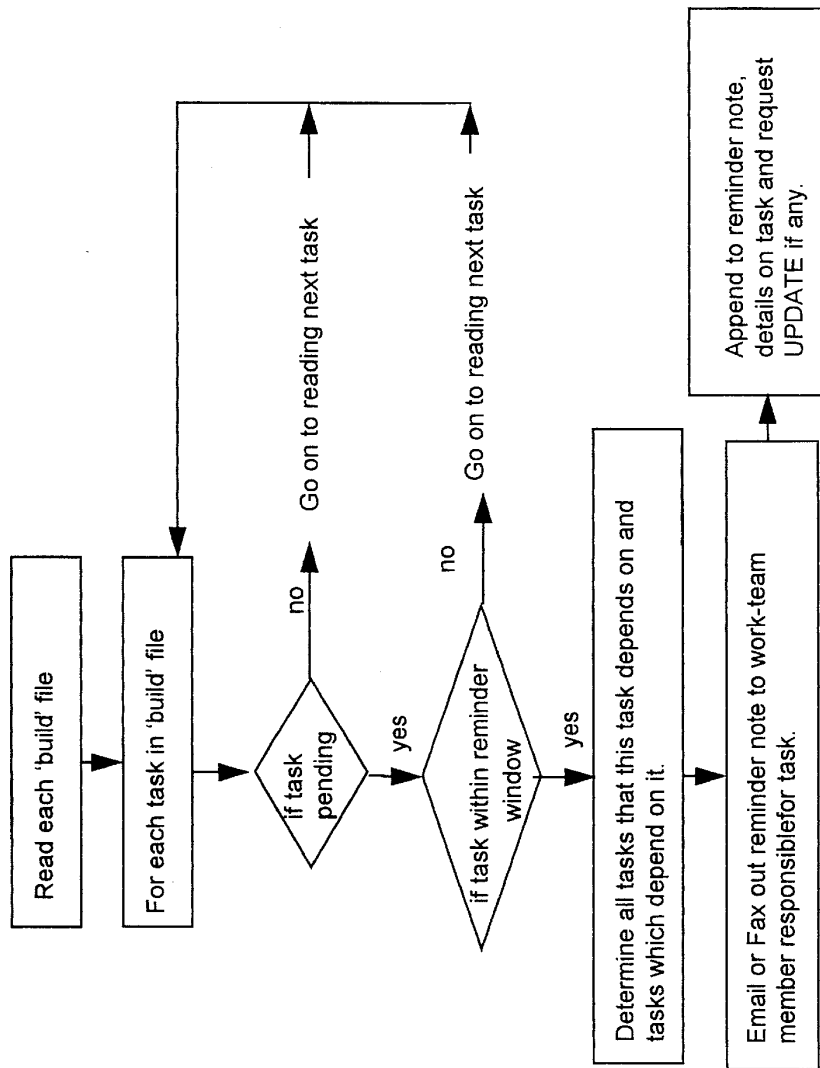


Fig 7 - 'Inform' Flowchart

Objective : To track task completions and inform dependent tasks on start or finish status of their predecessors, thus to act as a formal channel of communication eliminating the chance of mis-information.
To inform project and task leaders on re-computed completion dates based on resource reallocation between projects.

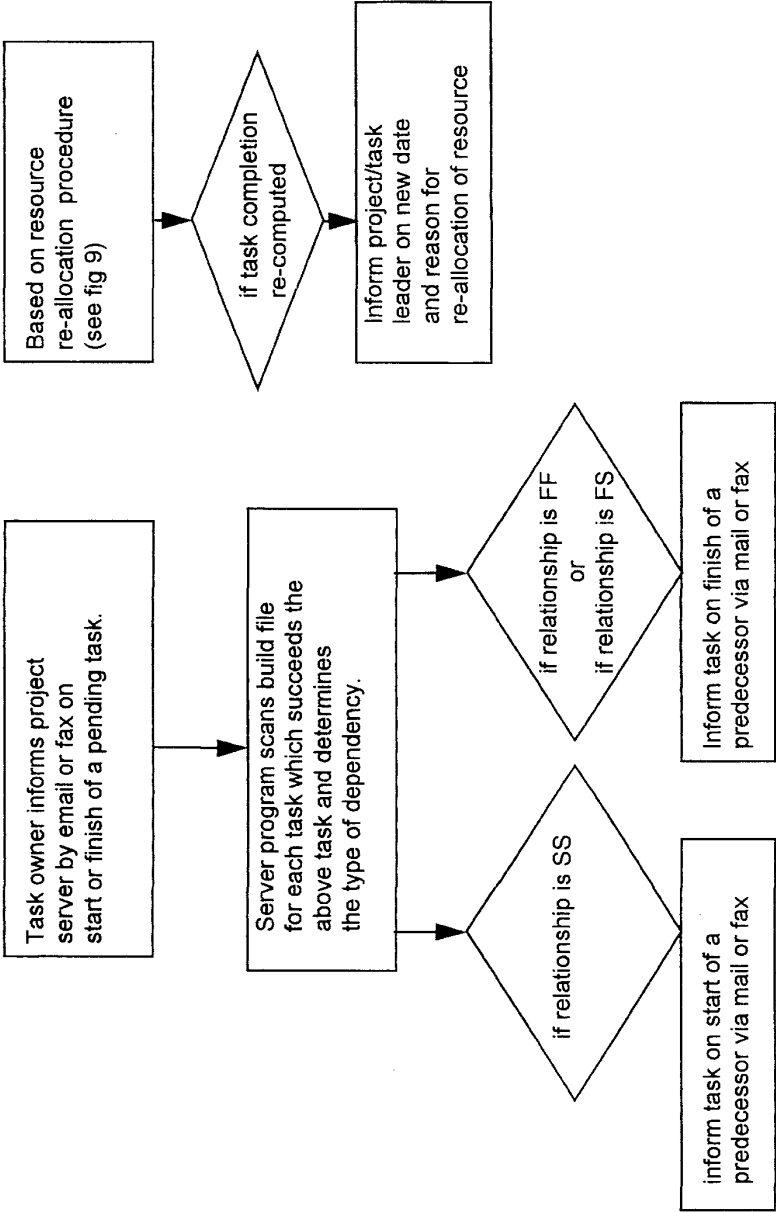


Fig 8 - 'Update' Flowchart

Objective: To update the 'build' file with status changes in task details, or task inter-dependencies or inter-project priorities.

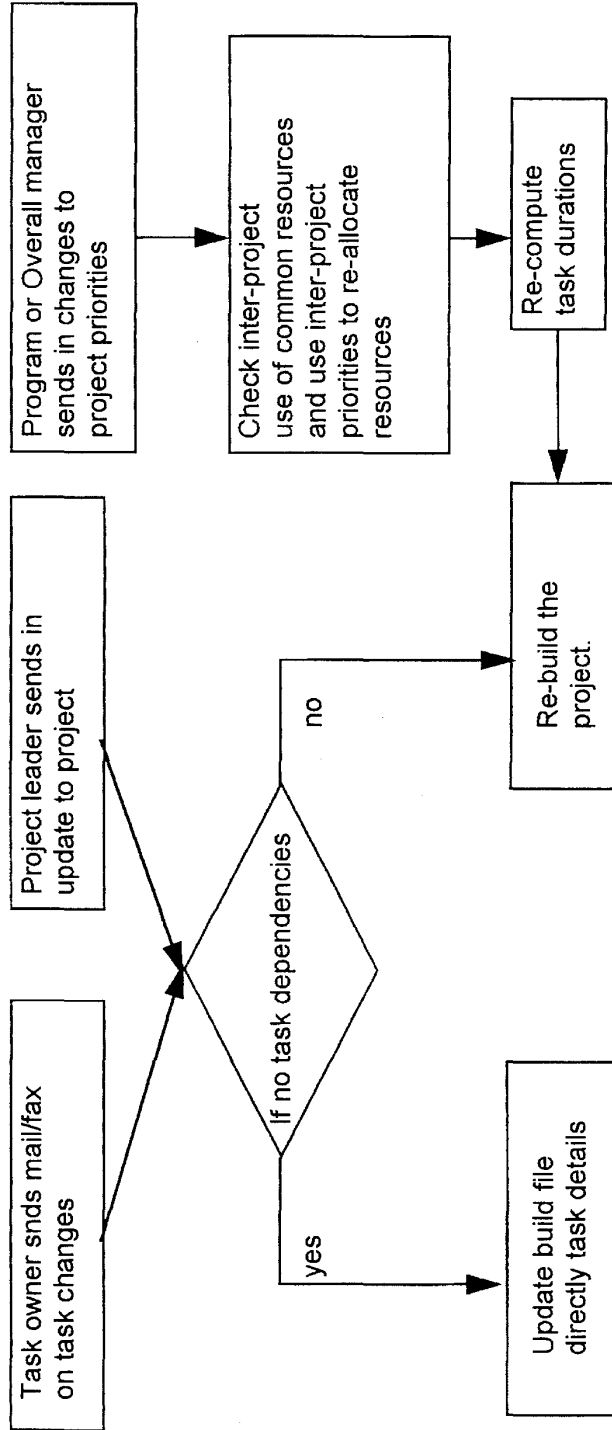


Fig 9 - Inter-project priorities and resource allocation flowchart

Objective: To allocate common resources based on inter-project priorities and re-compute task durations.

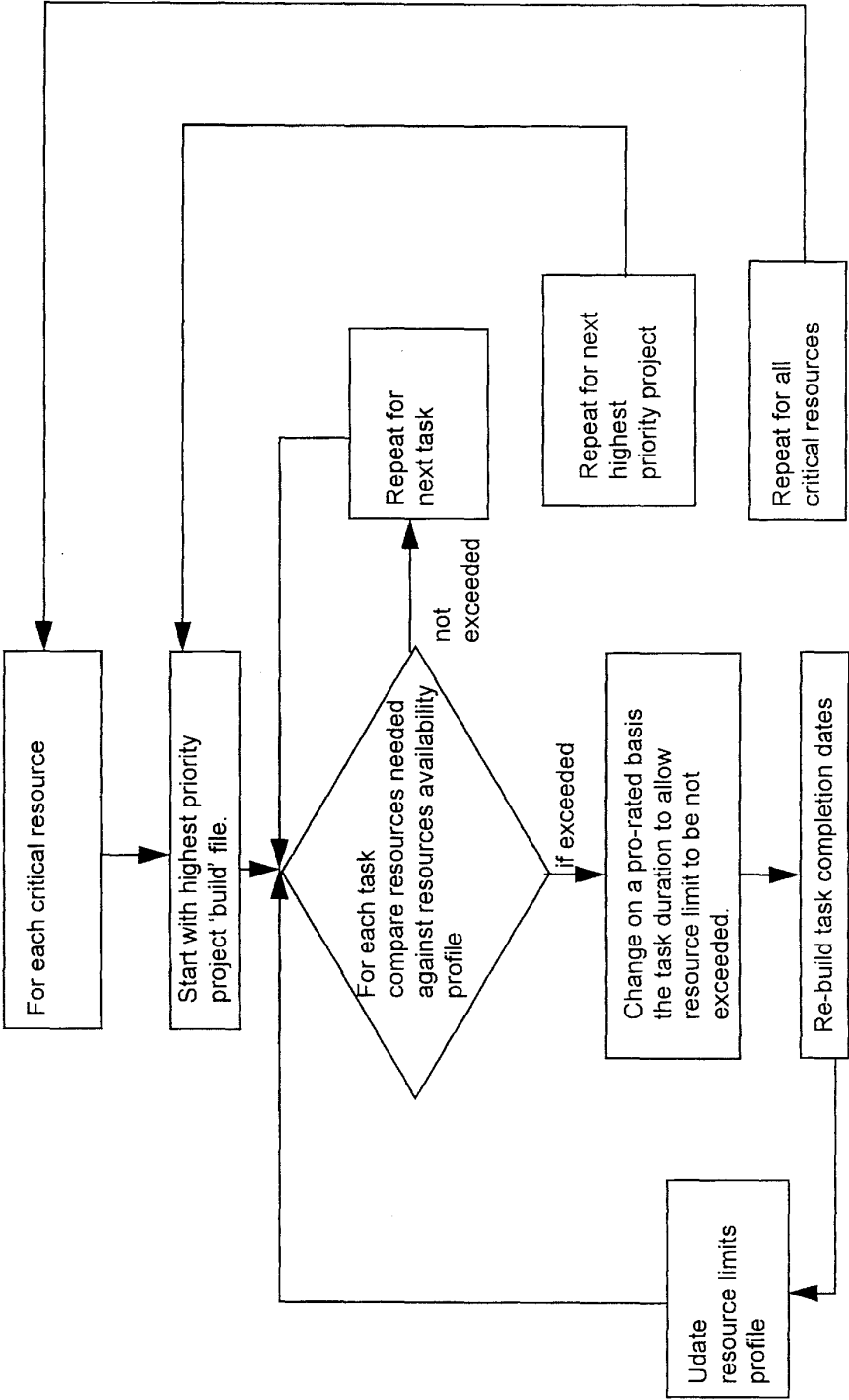
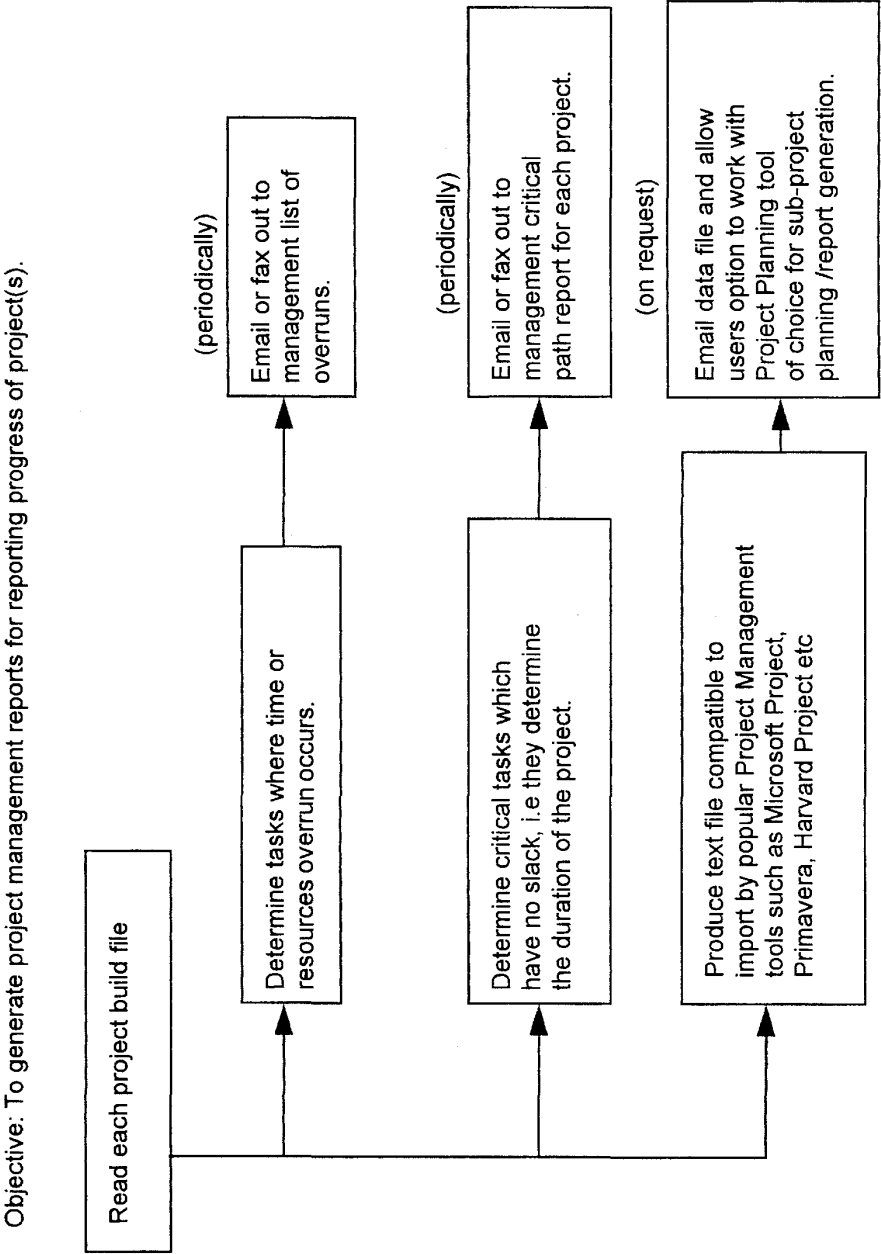


Fig 10 - 'Reports' Flowchart



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AUTOMATED, ELECTRONIC NETWORK BASED, PROJECT MANAGEMENT SERVER SYSTEM, FOR MANAGING MULTIPLE WORK-GROUPS

BACKGROUND

1. Cross-references to Related Applications

A patent search revealed no patent under the categories, Automatic Project Management, or under Electronic Mail based Project Management or Groupware Project Management.

The category Project Management revealed two patents:

- (1) U.S. Pat. No. 4,451,067, A Comprehensive Central Scheduling Folder for Project Management offers a non-computerized method for planning and tracking projects. This has no similarity with the proposed electronic network based project management system, as it does not involve computers.
- (2) U.S. Pat. No. 4,875,162, An Automated Interface of Design Software with Project Management Software. The scope of this is narrow, focuses on design organizations only and involves automatic status update of files between design software and project Management software. This is not for general purpose management of multiple work-groups. Also it does not address the design of a general purpose auto-server for project management, which will perform automatic project database creation, project follow-up, multi-project resource planning and project reporting.

2. Field of Invention

The invention described here is the design and application of an electronic network based project management server system. The product termed in this application as an 'AUTO MULTI-PROJECT SERVER'. The use of the product will result in an improved organizational process for compiling, tracking and managing multiple projects within an organization.

The goal of the 'Auto Multi-Project Server' is to act as an automated computer based project coordinator to manage the goals of multiple organizational work-teams. Activities of the automated computer based server comprise of collating/compiling project data, flagging inconsistencies, follow-up with work-team members, obtain updated project tracking data, communicate project progress to work-team, resolve inter-project conflicts by re-allocation of critical resources based on project priorities and generate management reports for flagging time and cost overruns and critical path information.

Future re-engineered corporations will demand heavy computing needs for managing large number of work-teams with different project goals, schedules, dependencies and priorities running simultaneously. The present techniques for static project-management tools and for limited project-management groupware technologies will no longer be adequate.

3. Discussion of Prior Art

Presently the following types of project management systems are available:

1. Project planning tools, with software for generating charts such as Gantt, Pert/CPM etc. Many of the techniques were invented during the Second World War Majority of project management is perceived as belonging to this area. These are static standalone tools and do not impose any particular process in the organization. Organizations have to figure out methods for input, tracking and report distribu-

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tion. Typically a project coordinator is hired by organizations to manually compile input data, run the tools and distribute progress reports.

- Examples: Commercial tools such as PRIMAVERA and MICROSOFT-PROJECT offer computerized static software approach to planning projects, i.e. a person has to supervise the input data collection and output report generation, and there is no automatic process specified by the manufacturer.

A survey of existing project management tools showed no use of electronic mail or faxing methods to do any automatic creation, updating, planning or reporting. (Reference: DATAMATION—Oct. 1, 1993, Article: Project Management Software that's IS friendly, has a survey of the capabilities of Project Management tools and there is no mention of any automatic server based tools, driven by electronic messaging.)

2. Group collaboration and Work flow management tools, provide technologies to automate the flow of documents. These are directed at a wide variety of needs such as facilitating group conferences, meetings' management, project database management, information flow control and other custom mail enabled applications. The tools by themselves do not impose any organizational process, but offer an underlying technology to build applications, including the design proposed by this patent.

Example (1): U.S. Pat. No. 5,168,444 for a Work-flow shipment system, including processing of document images. This is not related to automatic project management for multiple work-groups.

Example (2) Lotus NOTES is a leading groupware product offering the necessary technology to build organizational processes including Project Tracking examples. The system is not designed to handle large multi-project/multi-priority environments. There is no automatic system proposed by the manufacturer and it is left for each organization to design its own process or system of project management.

Example (3) The nearest commercial product design is a product called SYZYGY from Information Research Corp., which builds on inherent capability of local area networks (LAN) to tie workers together. The system has a central database on organizational projects and can be automatically be programmed by managers to broadcast reminder messages. (Reference: Personal Computing, Volume 14, Issue 4, Date: Apr. 27, 1990, Page: 152), The differences I see between this product and the invention under this patent:

Syzygy is not ideal for managing large or complex projects since it lacks critical path analysis. The invention under this patent includes a complete computation engine for computing critical path activities,

Syzygy does not do complex inter-task dependency computations.

Syzygy is not targeted for multiple work-teams with inter-conflicting priorities.

Syzygy does not attempt any resources leveling or resource re-allocation.

Objects and Advantages

The product in this patent application the 'Auto Multi-Project Server' consists of a centralized automatic project management server software, based in a computer and accessible via electronic mail or fax messages.

No Programming is involved by people using the system, the 'Auto Multi-Project Server' automatically computes task completion/start dates and triggers messages based on data mailed to it. Thus the data itself is used to program the 'Auto Multi-Project Server'.

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The 'Auto Multi-Project Server' reads electronic mail or fax messages, such as project plans and flags project data inconsistencies. It then compiles project management data into a usable project database with information to include details on goals, milestones, budgets etc.

The 'Auto Multi-Project Server' follows-up with task leaders on pending tasks by reminding them on task start and finish dates

The 'Auto Multi-Project Server' includes extensive dependency calculations, such as taking into account complex inter-task dependencies and start/finish lags between dependent activities.

The 'Auto Multi-Project Server' goes beyond just reminding people about their start and finish dates, it also serves as a project information system by informing the group team members on their inter-dependencies.

The 'Auto Multi-Project Server' includes resolution of multi-project priorities, which is an essential component for managing multi-groups with divergent priorities. It allows for example a program or general manager to examine multiple-projects under his program and assign priorities for completion. Individual task deadlines and resource usage would be controlled by the priorities assigned to the completion of the project.

The 'Auto Multi-Project Server' will re-allocate critical resources based on project priorities and re-compute completion dates. The project database would automatically be updated with the new dates. Thus there is automatic resolution of priority conflicts. The project leader does not have to have to constantly escalate issues up the management hierarchy for resolution.

Security issues are handled by the authorization of all input mail or faxes, prior to processing. For electronic mail and faxes the incoming mail is checked against a valid list of passwords prior to processing. Also each project is assigned a unique identifier to prevent mix-up of information between projects.

In summary the 'Auto Multi-Project Server' is a necessary requirement for the needs of future HORIZONTAL CORPORATIONS where the information to manage multiple projects will be too complex to be done via manual present-day tools.

Further objects and advantages of my invention will become apparent from a consideration of the drawings and ensuing description.

DESCRIPTION OF DRAWINGS

FIG. 1—Architecture drawing to show the different components of an 'Auto Multi-Project Management Process', which is required for implementing the 'Auto Multi-Project Server'.

FIG. 2—Internal architecture of the 'Auto Multi-Project Server'.

FIG. 3—Project database example, format to serve as the primary communication and storage format for information on the different project(s).

FIG. 4—Build Program Flowchart, to compile together data on inter-dependent tasks for each project and build a reference database (with all necessary project information). To compute completion dates based on resource limits and inter-project dependencies.

FIG. 5—Dependency computation flowchart, to compute task start and finish dates based on relationship to dependent predecessors.

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FIG. 6—Reminder program flowchart, to track pending tasks and remind task owners on a pre-determined frequency on when to start/finish tasks. To update task owners on status of dependencies.

FIG. 7—Inform flowchart, to track task completion and inform dependent tasks on start or finish status of their predecessors, thus acting as a formal channel of communication eliminating the chance of misinformation. Also to inform project and task leaders on re-computed completion dates based on resource re-allocation between projects (based on project priorities).

FIG. 8—Update flowchart, to update the 'build' file with status changes in task details or task inter-dependencies or inter-project priorities.

FIG. 9—Inter-project priorities and resource allocation flowchart. To allocate common resources based on inter-project priorities and re-compute task duration.

FIG. 10—Reports flowchart, to generate project management reports for reporting progress of projects(s).

LIST OF REFERENCE NUMERALS

FIG. 1

10 Project(s) databases, contains information on the project, also referred to as the 'BUILD' file. Format for this file is shown in FIG. 3.

20 Auto project management server. This software system is the heart of the process and its workings are explained in the flowcharts contained in FIG. 4 through FIG. 10.

30 Messaging system such as Fax or Email (Electronic Mail)

40 Network Operating System, is a general term used to refer to the communication protocol used to allow users communicate with the 'Auto Project Server'.

50 Fax, LAN (local area network), WAN (wide area network) or telephone network is the media for communication.

60 Work-team members communicating to the 'Auto Multi-Project Server', these may be program managers, project leaders, task leaders etc.

FIG. 2

10 Project updates, module to parse and read project updates,

20 Database updating, module to update the project database with new information.

30 Database creation, module to open a new database project file.

40 Project data computation, module to compute all project data, (Dates etc.)

50 Project creation, module to parse and read in project data on new projects.

60 Project database, centralized complete information on the project.

70 Resource re-allocation, re-assigns critical resources if limit exceeded.

80 Database access, to retrieve task information from project database.

90 Reminder processing, to send out reminders to pending task owners.

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100 Inform status, to communicate status of dependencies.

110 Project reporting, to generate and send out project progress reports.

SUMMARY

The design and implementation of an 'Auto Multi-Project Server' for Automatic Multiple Project Management is described in this patent. This involves a self-running software system running on a central server computer system with capabilities for automatic data compilation, tracking and management, handle multiple projects, resolve inter-project resource conflicts and communicate with users via electronic mail or fax mail.

DESCRIPTION OF INVENTION

FIG. 1 shows the overall process of using the invention in an organization to manage multiple projects vi an automatic computer server. FIG. 2 shows the internal architecture of the invention which is an 'Auto Multi-Project Server'.

FIG. 1, Part 10—refers to the set of project database files stored, one for each project. These files are also referred to as the 'build' file. Refer FIG. 3 for a sample format. This file contains information about the project, such as the start date and other global information such as the project leader's name, mail identity, holidays, weekends etc. It also contains detailed information about each task such as the description, task leader's name/mail identity, task duration or planned completion date. In addition it contains information about the dependencies for each task, in terms of the predecessor task id, the type of dependency whether FS(predecessor finishes and task starts), FF(predecessor and task finish together) or SS (predecessor and task start together), and the lag between the predecessor and task activities. Finally the database contains information about which resources, amount of resources and budget for resources required for doing the task.

FIG. 1, Part 20 is the 'Auto Multiple Project Server'. This is a software system which is the head of the new process. Details of its internal architecture are contained in FIG. 2. Its workings are explained in the flowcharts contained in FIG. 4 through FIG. 10. The server is a software process that runs at fixed intervals (example: at the end of the day) and performs the task of project management coordination by performing date compilation, data validation, database update, follow-up reminders to task leaders, inter-project resource conflict resolution and allocation and management reports generation on critical tasks and overruns. The main modules of the server software are described below:

Creation functions consisting of:

Project creation module to read and check for consistency, project data on new projects. (Component 50, FIG. 2)

Data computation module, to compute completion dates for all activities in the project based on dependency information and project start date. (Component 40, FIG. 2)

Database creation, this module creates a new database project file. (Component 30, FIG. 2).

Project database, holds centralized complete information on the project. (Component 60, FIG. 2).

Conflict-resolution functions consisting of:

'Resource' module, to check for resource usage and to re-allocate resources on the basis of inter-project priorities, if resource are limits exceeded. Project database

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has to be re-created if resources are re-allocated.(Component 70, FIG. 2).

Updating functions consisting of:

'Project Update' module, to receive and parse updates from project/task leaders (Component 10, FIG. 2)

Database updating, module to update the project database with new project status information.(Component 20, FIG. 2).

Information functions consisting of:

Database access, to retrieve task information from project database. (Component 80, FIG. 2).

'Remind' module, to send auto reminders to task leaders of pending tasks. (Component 90, FIG. 2).

'Inform' module, to inform task leaders on completion of dependent activities. (Component 100, FIG. 2)

Project reporting, to generate and send out project progress reports. (Component 110, FIG. 2)

The server software system has been implemented in C language, making it easier to port to different machines and also providing the necessary performance for handling the largest projects. The server system has to work closely with the Messaging system and the Network Operating System, the components of which are described below.

FIG. 1, Part 30—Messaging system is used to refer to the communication protocol used to allow users communicate with the 'Auto Multi-Project Server'. This has to work under and is closely related to FIG. 1, Part 40 which is the Network Operating System. The network operating system controls the network operation.

The 'Auto Multi-Project Server' has to be configured separately for each type of messaging system/network operating system. The following are some of the example environments, they are provided for clarity and do not exclude other environments:

UNIX mail system running under a UNIX server machine such as a 486 PC, PENTIUM PC, SUN Workstation, DEC workstation, IBM RS6000 workstation etc. and communicating to other machines via an electronic network (Part 40). Users send electronic mail to the server machine on new project information and status updates, which is processed by the 'Auto Multi-Project Server'. The 'Auto Multi-Project Server' in turn sends back electronic mail reminders and management reports.

Mail system running on a network of PCs'. The mail system may be LOTUS CCMail or LOTUS NOTES or MICROSOFT MAIL etc. The Network Operating System may be NOVELL NETWARE or VINES or PC-NFS etc.

Fax based communication system, based on fax board inside PC coupled with OCR software to read fax messages. Here the fax board and software functions as the messaging system, as well as the network operating system. The fax system must have automatic transmission, automatic receipt and optical character recognition capability.

FIG. 1, Part 50 is the communication network, which may be Fax, LAN (local area network), WAN (wide area network) or telephone network is the physical media for communication. This is generally transparent for the 'Auto Multi-Project Server', as it is handled by the Network Operating System (Part 40).

FIG. 1, Part 60 are the different Project Work-team members communicating to the 'Auto Multi-Project Server', these may be program managers, project leaders, task leaders etc. The program manager assigns inter-project

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priorities, the project leader creates the first plan for the project and the task leaders update the project database with progress of project.

Operation of Invention

The 'Auto Multi-Project Server' is designed to change the organization process of planning, tracking and management of work-team projects. The entire process is planned to be automated with managers focusing only on the exceptions and crisis situations. I describe below the process of using the 'Auto Multi-Project Server', as well as the logic used by the Invention to manage projects.

Step 1—Set up the environment, this involves creating an environment configuration file with an entry in it to show the command string to be used in submitting an input file for electronic mail or for faxing it out. Also the command string to be used in reading an electronic mail or fax, and the input file name. The environment file is also used to indicate week-ends, holidays and default reminder frequency and default reminder window.

In addition a separate file containing authorization information is required for 'project leaders to allow them to create new projects. The authorization will consist of a list of 'user names' and valid passwords'.

The above environment configuration files are the only manual operation and is a one time operation. These can be performed by a Systems Manager, who does not require to have any knowledge of 'Project management processes'. Based on the configuration values the appropriate communication procedures are invoked.

Step 2—The project leader creates a project plan in the format as per FIG. 3. This has information on the project, tasks, dependencies and resources to be used.

Step 3—The 'Auto Multi-Project Server' reads the project plan and invokes the 'Build' Procedure as per flowchart in FIG. 4. The first step is to validate the user/password and then parse the input for errors such as if names, descriptions, mail ids etc. are missing. Based on dependencies, the server computes the completion dates for each task. Completion dates are based on work-days only, so the software accounts for week-ends and holidays. Refer FIG. 5—Dependency Computation Flowchart for details on how dependencies are handled.

Step 4—Resolving Inter-project resource conflicts. The 'build' procedure is not complete unless critical common resource usage has been compared against the resource limits. Refer FIG. 9 for the flowchart for the re-allocation of critical resources and the re-computing of completion dates.

Prior to this the Program Manager is mailed a list of projects and is requested to assign a rank priority. In addition the program manager is requested to supply a list of critical resources and their usage limits. The actual usage is compared against this limit.

Step 5—Task Reminders are accompanied by information about the task, to allow task leaders to provide change updates such as changes in the task duration or the estimated completion date or to inform on amount of resources actually consumed. Refer FIG. 8 for the procedure flowchart on updating the project database.

Step 6— The 'Inform' procedure is invoked each time there is a change in a dependent task status such as starting or completion. Refer FIG. 7 for the flowchart. Thus the 'Auto Multi-Project Server' serves also as a formal mode of communication of task status, and does not leave it to be communicated via other informal means.

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Step 7—The 'Reports' procedure shown in FIG. 10, is invoked to generate the necessary management reports on time/cost overruns and critical path analysis. In addition managers are informed on re-allocation of any resources, to explain re-computation of completion dates.

Automatic Operation—It should be noted that the operations of the 'Auto Multi-Project Server' are automatic (or self-running) and there is no manual intervention. Only at the staff-up stage is there any manual customization of the environment, by changing some of the program variables and setting up the environment file. In general the operation is driven by mail messages received from users. The 'Auto Multi-Project Server' responds to the messages and is thus 'event driven', though the response does not occur immediately but rather batched together for the end of day processing, as explained in the next paragraph.

Night processing—It is suggested that given the heavy amount of processing for each project, all 'build', 'reminder', 'inform', 'reports', 'resource re-allocation' procedures be run at night. This will allow for lowered load on the server and also allow accumulation of all status updates to be handled together eliminating database file access problems. Real time response to user messages is not necessary.

Summary, Ramifications and Scope

I have described so far the architecture and working of an 'Auto Multi-Project Server' which is necessary to implement the proposed 'Automatic Multiple Project Management Process'. As can be seen from the product description and operation so far, the 'Auto Multi-Project Server' is a first of its kind product with some very unique features to handle large and multiple number of projects, including where there are resource conflicts. The future organizations will be greatly demanding in terms of number and size of projects and only an automated software system can prove to be useful. Existing static tools will be overwhelmed by the amount of project data.

What is claimed as the invention is:

1. A method executed by a computer system as part of a computer program, said system for coordinating the management of a project, said computer system to comprise of a central database server connected to a electronic network, said method using a two way electronic messaging system that allows different types of organizational work-group team members to send messages to the computer program and receive messages from the computer program via the said electronic network, said method storing and accessing data from a multi-project database, said method to be automatic in nature and with built in triggers which are based on the nature and status of said data without need for manual project management coordination, said project management coordination to involve all the steps of the project management cycle including planning, resource leveling, status reporting and reminding, tracking and updating plans, said method to be configurable for the said organizational work-group environment, said method comprising the steps of:

- (a) identifying the owner of received message;
- (b) identifying the nature of said received message;
- (c) setting up said multi-project database and saving said received messages to said database according to the nature of said received message;
- (d) receiving project plans and compiling project plans and saving project plans into said multi-project database;

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- (e) checking said project plans for resource requests against resource availability and reallocating resources if necessary based on inter-project priorities;
 - (f) recalculating and sending back said project plans based on resource reallocation;
 - (g) sending project status reports and reminders to organizational work-group team members based on the status of said triggers;
 - (h) receiving project updates and status changes and updating said project database;
 - (i) repeating steps (a) through (h) on a periodic basis, as desired by said organizational work-group team members.
2. A method as claimed in claim 1 wherein said identifying the owner of the message step additionally comprises the step of identifying the incoming user messages and authorizing them against a valid list of users.
3. A method as claimed in claim 1 wherein said identifying the nature of the message step additionally comprises the step of checking the consistency of data sent to it via user messages, prior to processing the messages; has means to reject and return user messages which are inconsistent.
4. A method as claimed in claim 1 wherein said compiling project plans step additionally comprises the step of computing task completion dates based on project start date and inter-dependencies among tasks.

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5. A method as claimed in claim 1 wherein said saving project plans step additionally comprises the step of creating a project database of information on the project, with all necessary information for follow-up of progress and all necessary information for reporting progress.
6. A method as claimed in claim 1 wherein said recalculating project plans based on resource reallocation step additionally comprises the step of recomputing task duration's and completion dates of tasks.
7. A method as claimed in claim 1 wherein said sending project status reports and reminders step additionally comprises the step of processing each project database and generating outgoing reminder messages for task leaders whose tasks are pending.
8. A method as claimed in claim 1 wherein said sending project status reports step additionally comprises the step of soliciting for updates to project and database status information.
9. A method as claimed in claim 1 wherein said sending project status reports step additionally comprises the step of sending messages to task leaders, on status of inter-dependent tasks.

* * * * *

EXHIBIT G

US007171615B2

(12) **United States Patent**
Jensen et al.(10) **Patent No.:** **US 7,171,615 B2**(45) **Date of Patent:** **Jan. 30, 2007**(54) **METHOD AND APPARATUS FOR CREATING AND FILING FORMS**(75) Inventors: **Arthur D. Jensen**, Grand Forks, ND (US); **Steven H. N. Lunseth**, Grand Forks, ND (US)(73) Assignee: **Aatrix Software, Inc.**, Grand Forks, ND (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 401 days.

(21) Appl. No.: **10/108,055**(22) Filed: **Mar. 26, 2002**(65) **Prior Publication Data**

US 2003/0188260 A1 Oct. 2, 2003

(51) **Int. Cl.**
G06F 15/00 (2006.01)(52) **U.S. Cl.** **715/506**; 715/505; 715/513; 715/744; 715/508; 715/507(58) **Field of Classification Search** 715/505, 715/506, 507, 512; 358/534; 705/31, 3; 382/282

See application file for complete search history.

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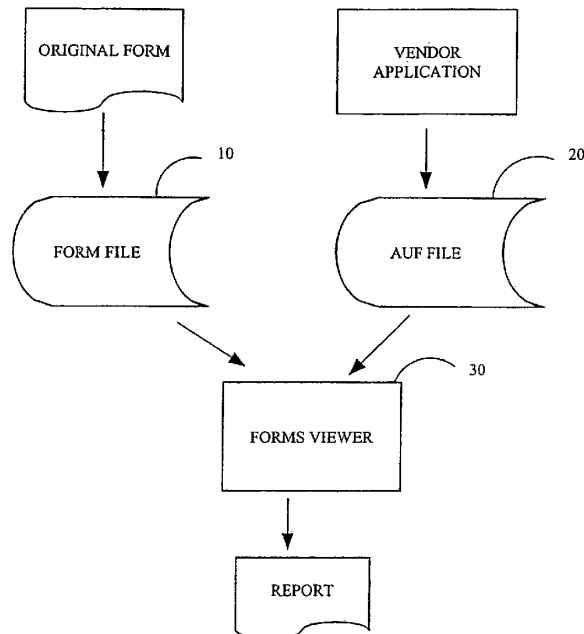
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Primary Examiner—William Bashore*Assistant Examiner*—Quoc A. Tran(74) *Attorney, Agent, or Firm*—Briggs and Morgan P.A.; Nelson R. Capes(57) **ABSTRACT**

A data processing system for designing, creating, and importing data into, a viewable form viewable by the user of the data processing system, including: a form file that models the physical representation of an original paper form and establishes the calculations and rule conditions required to fill in the viewable form; a data file containing data for populating the viewable form; and a form viewer program operating on the form file and the data file to perform calculations, allow the user of the data processing system to review and change the data, and create viewable forms and reports.

39 Claims, 5 Drawing Sheets

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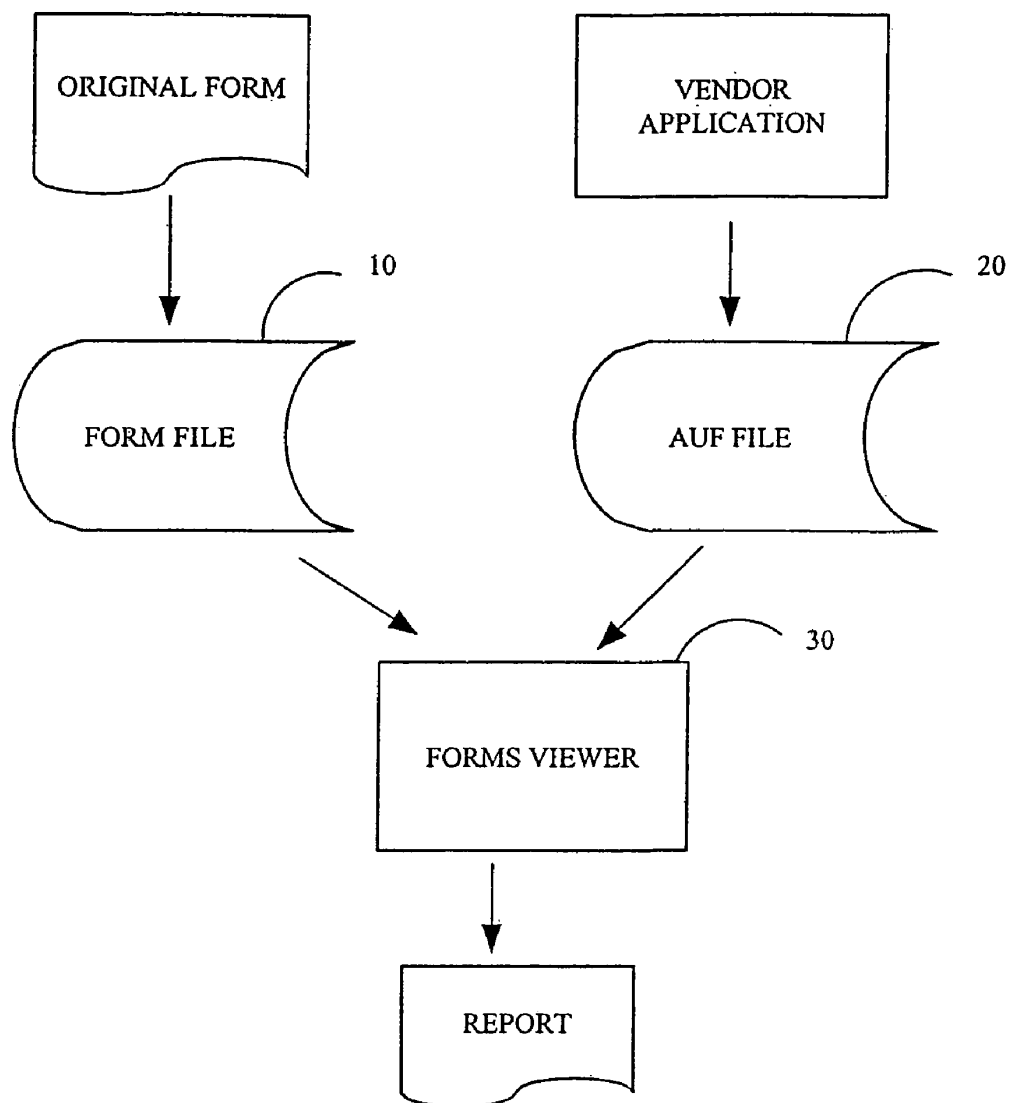


FIG. 1

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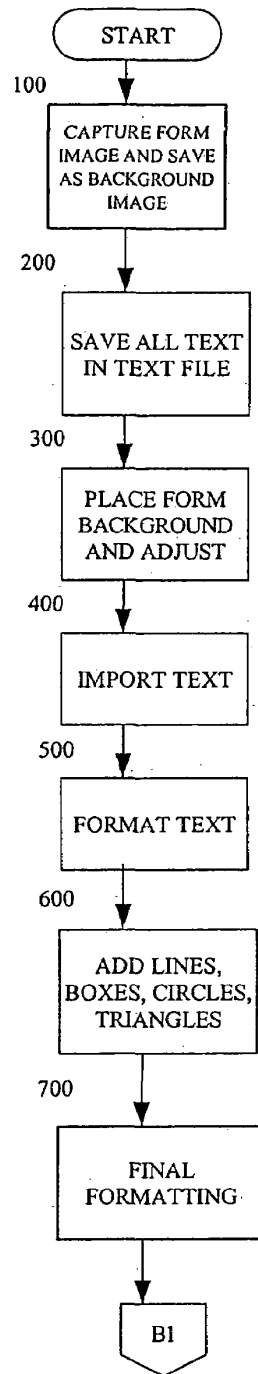


FIG. 2A

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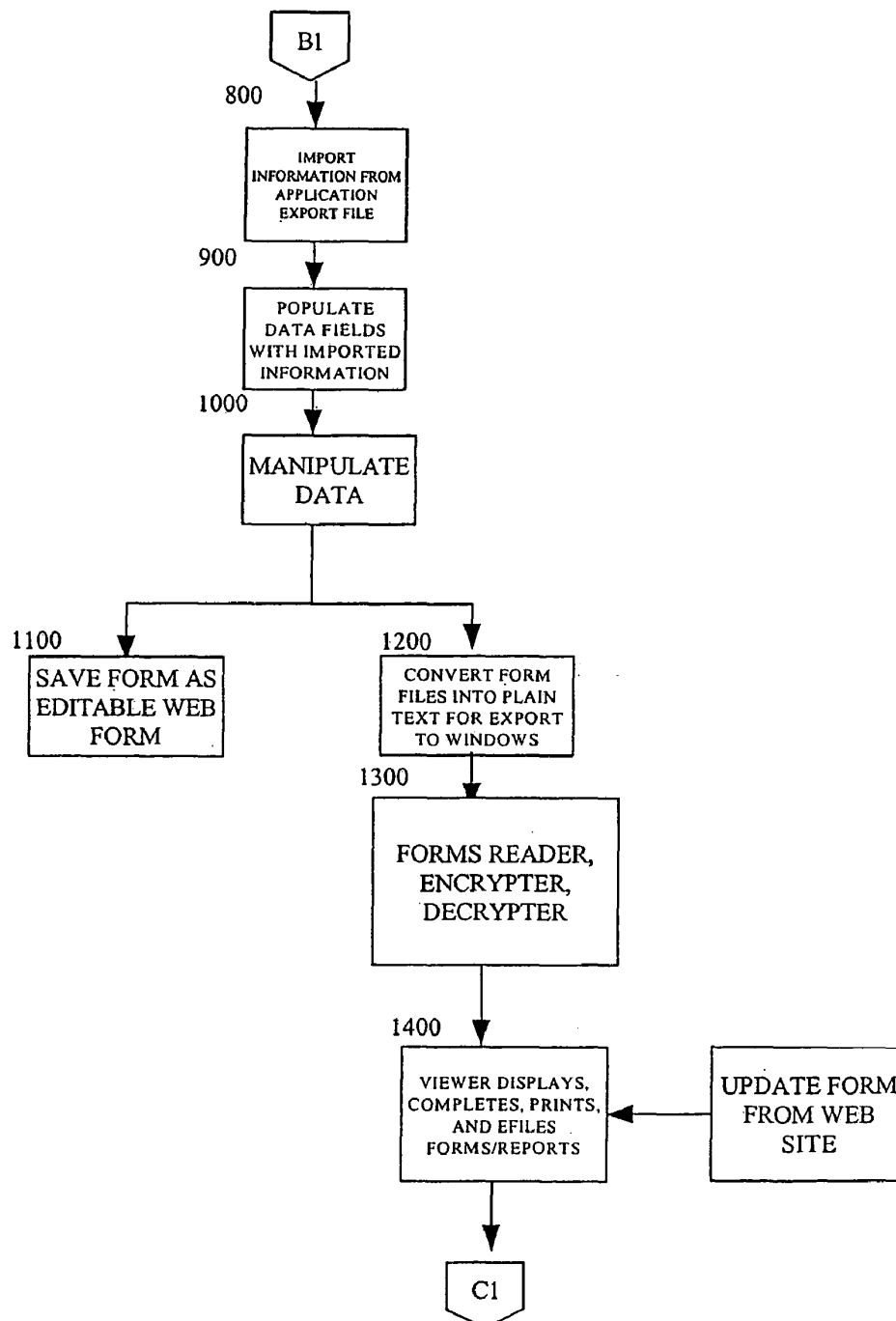


FIG. 2B

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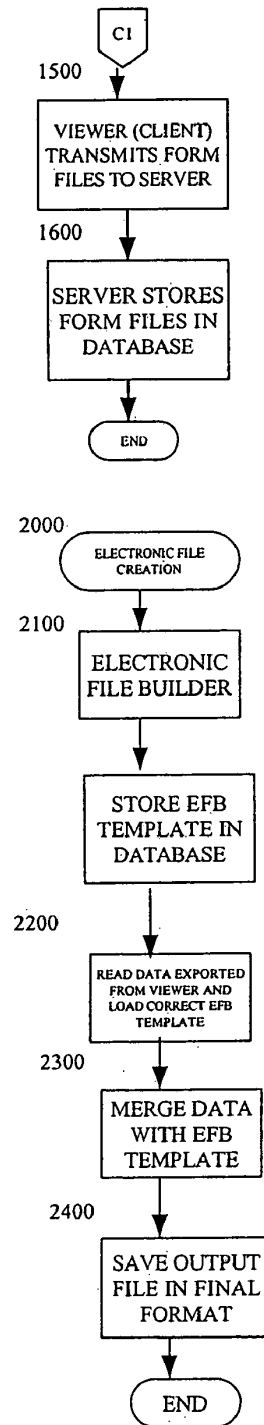


FIG. 2C

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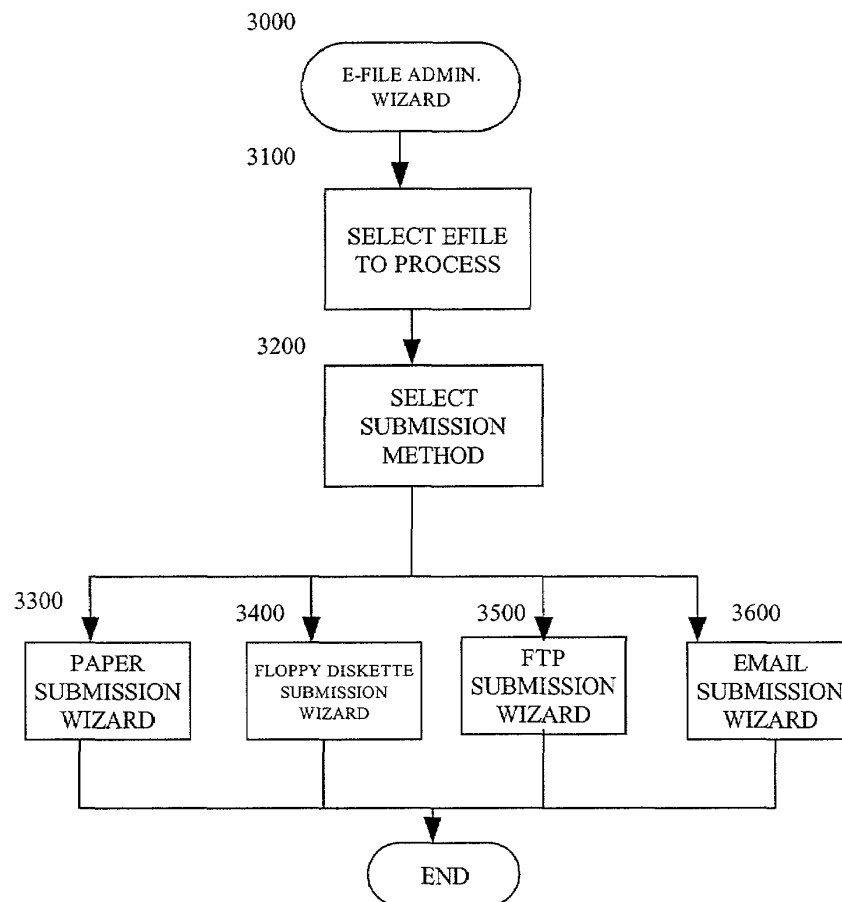


FIG. 2D

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**METHOD AND APPARATUS FOR CREATING
AND FILING FORMS****BACKGROUND OF THE INVENTION**

The present patent application relates to a tool which has been developed to facilitate the rapid production of “on screen” computer forms, which allow users to print out the forms for physical filing or electronically file the information. In this application the tool shall be called “Aatrix Forms Designer” or “AFD.”

Aatrix Forms Technology Prior to AFD

Earlier software has had “on screen” fill in forms since 1990, at the time limited to the United States Federal Forms W-2, 1099 and 941. Early versions of these forms were implemented by displaying a graphic image of the form, and then overlaying text entry boxes that the user could fill in.

This early method required a fairly time consuming process by which the programmer would have to write the underlying code for all of the textboxes, including the determination of where they physically laid on the graphic.

Another version of the software, produced in April, 1993, was predominantly a programming tool that generated “C” or “Pascal” source code for use within the company’s Payroll Series of products. The product consisted of a graphical interface for tracing “text entry” boxes over an existing graphic, then exporting the source code required to produce those text boxes. The source file was merged into the payroll projects and recompiled to produce object code for handling on-screen fill-in forms.

Further enhancements were added to the early product to allow it to generate HTML code for support of clickable graphics on the web, the ability to save and open existing AFD documents, and the addition of “Properties” for each text field that would allow the source code to perform rudimentary checking and formatting of the text data (defining something as a “money” field versus “text”, for example, would only allow numbers to be typed in, and the field would be right aligned.)

The final major enhancement to be added was the ability for the forms designer to add graphical elements such as boxes, lines and text to the form. This allowed the form to function “on its own,” without any underlying graphical field. Because the graphical data was stored in a “pure format,” the resulting forms files were considerably smaller and more accurate, being able to take advantage of the computer’s graphics processing capabilities for display and printing.

Other typical solutions involve the use of either graphics or Adobe’s Portable Document Format (PDF,) both of which generate significantly larger files. A typical form which may be 100 kilobytes when stored as a GIF (Graphics Interchange Format) or up to a megabyte as a PDF can be stored in as little as 25 kilobytes with the above described format.

The critical piece of early AFD development was the creation of an interpreter, which was a small piece of source code that could be implemented in a program and which would automatically read, present on screen, and process an AFD file. This changed the focus of the tool from one which still required a bit of programmer effort (merging the source code into the project and recompiling) to one in which forms could be developed completely independent of programmers. At the time, the company included a “federal forms set” which consisted of the US Form 941, 943 and several others.

Subsequent to this, the company began its “State Forms” project, by which wage withholding and unemployment

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forms for all fifty states would be created with the AFD tool by non-programmers and could be implemented without any additional effort by coders. Minor enhancements to both the forms tool itself and the runtime module were required as issues were uncovered during the implementation of the state forms project, but these proved minor and by the end of 1995, Aatrix had available for sale forms for all fifty states.

A version of the AFD Runtime Module was created which was a stand-alone application—it did not need to be included with any other program. The means by which other accounting applications could support the forms was through a published standard called “Universal RectFinder Format” in a document released to the public in October 1995.

In September of 1996, Aatrix Development began a project to bring the state forms processing to the Microsoft Windows platform and for use via the Internet. The first step was agreeing to a file format, as binary data (which the forms were stored in on the MacOS) wouldn’t be cross platform. Once that was established, another application was created on the Mac, which would read AFD form files and convert them to plain text for transfer to the Windows computer. This lead to the creation of the current software and accompanying system, which is usable on all platforms.

SUMMARY OF THE INVENTION

A data processing system for designing, creating, and importing data into, a viewable form viewable by the user of the data processing system, comprising:

(a) a form file that models the physical representation of an original paper form and establishes the calculations and rule conditions required to fill in the viewable form;

(b) a data file containing data for populating the viewable form; and

(c) a form viewer program operating on the form file and the data file to perform calculations, allow the user of the data processing system to review and change the data, and create viewable forms and reports.

A principal object and advantage of the present invention is that it creates a viewable electronic form that exactly mirrors the physical representation of an original paper form.

Another principal object and advantage of the present invention is that it allows data to be imported into the viewable electronic form from outside applications.

Another principal object and advantage of the present invention is that it performs calculations on the imported data and allows the user to review and change the data and create viewable forms and reports.

Another object and advantage of the present invention is that it allows the creation of an electronically fileable form from the viewable form, based on a template.

Another object and advantage of the present invention is that it allows the electronically fileable form to be electronically filed in a variety of formats.

Other objects and advantages of the present invention will appear more fully in the Detailed Description of the Preferred Embodiment.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1. is a block diagram of the present invention.
FIG. 2A–2D are flowcharts of the present invention.

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DETAILED DESCRIPTION OF THE
PREFERRED EMBODIMENT

FIG. 1 is a general block diagram of the invention. The program is designed around three main components. The first is a proprietary form file **10** created using in-house form development tools. The form file directs the program in producing a replica of the original form. This form file is designed to model not only the physical representation of the form but also the calculations and rule conditions required to fill in the form. This allows users to interact with any form and have it automatically provide real-time updating of computed values.

The second main component is the data file **20**. Through this file, data from the vendor application is seamlessly imported into the program and used to populate the form fields. This file is known as the Aatrix Universal File (AUF). It contains only the data for a selected reporting period based on the guidelines programmed into the forms. So the AUF generated for a form the user is filing for the first quarter of the year must only hold data pertaining to the first quarter of the year.

The third main component is the viewer **30**. The viewer will generate a report **1400** by merging the data in the AUF file **20** with specific fields in the form file **10**. It performs the calculations and allows the user to review and change the field values. The forms/reports may be saved, printed, and e-Filed. In addition, the program has the ability to securely (using encryption algorithms) transmit forms/reports with data, as well as other critical company information, across the Internet to an e-File Server.

Creation of the Proprietary Form File:

Forms design is the process by which the seller creates a computer-generated form so that when printed, it will exactly match the original paper form. Form design includes static text and drawn elements. Static text may include such things as the form title and instructions for filing out and/or mailing the forms. Drawn elements include lines, boxes, circles, triangles or any other non-text items that appear on the original form. Note that the only exception to this is if the form contains copyrighted graphic images, such as the state seal, which the seller is not allowed to reproduce.

The first step **100** (FIG. 2A) in forms design is scanning, or otherwise digitally capturing an image of the original form and saving it as a background image, usually in PICT format. This is typically done on a flatbed scanner using a graphics software package, though it can be done by other means including, but not limited to, using a digital camera to capture the image. Once the image has been saved, it can be used as a "background" in the program.

The second step **200** in Forms Design is saving all text appearing on the form into a text file. The text file is later used to import the text into the program and then can be further manipulated. In the preferred embodiment, this can be accomplished in one of two ways. The form, while still on the scanner, can be scanned a second time with OCR software that can save all text automatically. The second method consists of the designer typing the text into a text document manually.

Next, the program will allow the background to be placed **300**. Once placed, the background can be adjusted and test printed to allow the designer to compare the alignment of the original form to the background test print. This is done so that when the form is ultimately completed, the seller knows that the printed form will be an exact copy of the original form.

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When the background is placed correctly, the text file containing all text, which appears on the form, can be imported **400**. The reason for importing the text into the program stems from the ease in which it is completed, compared to the time consuming method of typing each line in separately.

The next step **500** is to move the text to the correct position on the form for formatting. Formatting the text includes changing the font and size of the text as well as setting whether the text should appear in bold, italics, underlined, left-, right-, or center-justified, or rotated 90, 180, or 270 degrees. Just about any text formatting, which appears on the original form, can be recreated using the program.

Forms could be created without the use of a background. The forms designer can opt to not use a background image, and can design a form from scratch, by simply placing any desired text and drawn elements, such as lines, boxes, circles or triangles where ever the designer see fit. By simply adding a few lines of text, and some lines or boxes, one can create a form, which can be either printed out or filled out on the computer, easily and quickly.

Once all text has been placed, the designer can then add **600** any lines, boxes, circles or triangle that need to appear on the form. Line and boxes can also be formatted. Lines can be sized anywhere from 1 to 5 pixels in width, and can be set as solid, dashed, or dotted lines. Boxes can also be formatted. Aside from changing the height and width of the box, the lines of the box can also be sized from 1 to 5 pixels in width, or set to not appear at all. The box can be filled with varying degrees of shading such as light, medium, or dark gray and black. The box can be changed into a "circle rectangle" with the left and right sides of the rectangle appearing as half circles, or the 4 corners of the box can be rounded. And finally, the box can also be changed into a circle or a triangle pointing up, down, left or right.

All text and drawn elements can be moved, sized and formatted as necessary **700** to make the form look like an original paper form, if this is necessary. In addition to this, the program also has the capability of hiding text or drawn elements so that either appear only on the display screen, only on the printout, or not at all. This allows the designer to either print instructions for the user on the screen which do not need to appear on the printout, to print information on the printout which is not required to appear on the screen, or to simply hide the text or drawn elements all together, such as in revision information which is only important to the designers. Once the complete form is printed out, it is sometimes difficult to differentiate the copy from the original, which is the goal of the program.

The program has many features and capabilities that allow further editing, design, modification and use of the forms created. Linking multiple pages, recalculating the form based on data entered, adding and modifying data fields are some features.

Creation of the AUF File Forms programming (FIG. 2B) is the section of the program that works with data fields. Fields are areas on a form that need to be filled in with alphanumeric information, either automatically taken from another program, such as the payroll application, or manually filled in by the user. The program is capable of pulling this information from an export file from many accounting and payroll applications. For common fields, such as Company Name, there remains the capability to automatically fill in that information on the form without the user having to enter it.

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In its preferred embodiment, the main program **800** pulls information from the user's payroll or accounting application's export file, thus filling in **900** certain information on the form without the user having to type it in. With the export file, a lot of information that would normally have to be manually filled in is tagged for populating fields. This includes the Company Name, Address, Federal and State ID Numbers, Phone Numbers, Contact Name, Contact Address, and Contact Phone Number. Also, the program can fill in most of an employee's information including the Employee's Name, Address, Phone Number, Wages, Pay Rates, and Individual Paycheck Amounts including Deductions, Employer Paid Items, and Types of Income. All the paycheck information can be split out to individual days, or added together to get many different totals for Weekly, Biweekly, Monthly, Semi Monthly, Quarterly, Semi-Annually, or Annually to mention a few.

There are various types of fields that can hold data. These types of data fields allow us to manipulate data **1000** in many different ways. Below is just a partial list of our current data field types that are added to regularly.

- a. Entered—Allows manually entered information in this field.
- b. Static Text—A data field that is always the same every time the form is used.
- c. Checkbox—Creates a checkbox field.
- d. Addition—Creates a field that holds the result of adding multiple selected fields.
- e. Subtraction—Creates a field that holds the result of subtracting two selected fields.
- f. Multiplication—Creates a field that holds the result of multiplying two selected fields or one field by a static value.
- g. Division—Creates a field that holds the result of dividing two selected fields or one field by a static value.
- h. Table—Creates a field that holds a simple defined table that can perform multiple level calculations. For example, from 0–100 multiply by 0.1, from 101–200 multiply by 0.2, etc.
- i. Use Table—Creates a field that holds the result of performing a calculation on one field using a Table field.
- j. Look up in form—creates a field that looks for a specific field's value on a different form.
- k. Combined—creates a field that concatenates multiple selected fields together to create one field.
- l. Fill-in Links—creates a field that fills in specific information automatically from a predefined link to a data file.
- m. Matrix—creates a matrix, or repeating set of fields. See the section on matrices below.
- n. Checksum—creates a field that calculates a one-character result using predefined algorithms.
- o. Number as text—creates a field that converts a number to text, such as used on a check.

Many different kinds of data that can be used in the form. These kinds include dates, currency, alphanumeric, integers, percentages, and multiple place decimals. With all of the kinds of data available, the seller can limit the number of characters stored in all data types. Also present in the program is the ability to format this data in multiple ways. For example:

1. Dates—Seller can format a date field to be Jan. 8, 2002, or 01/08/02, 2002/01/08, or January 8, 2002 among other ways.

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2. Currency—round the currency to whatever decimal the form needs.
3. Alphanumeric—limit the number of characters display, printed or stored in an alphanumeric field.
4. Integers—allow only positive or include negative integers.
5. Percentages—specify how many decimals to allow after the decimal point.
6. MP Decimals (multiple place decimals)—specify the number of places behind the decimal to allow in this field.

The program is also able to recalculate on the fly the numbers on the form based on the data that is entered in the form. For example, if there is known a Company's Total Wages paid for a quarter and then a field with Taxable Wages for a quarter, the program can calculate the Excess Wages from those two numbers. First, the programmer would set the Total Wages and Taxable Wages fields to recalculate the form when anything in this field changes. Then the programmer would set the Excess Wages field as a Subtraction field that subtracts from Total Wages the Excess Wages. This will cause the result to be placed in the Excess Wages field and be recalculated if either Total Wages or Taxable wages change.

Along with this capability, the program also can carry totals from page to page and add across multiple pages. This is achieved by setting the global attribute to a field, and adding this field with the global attribute to any other pages that needs to display this information. This feature is very vital to forms that need the same data on different pages of the form. This can be anything from dollar amounts, alphanumeric characters, etc. In addition, this allows the user to change the information on one page and all other pages with the same named field with the global attribute will be automatically updated. This eliminates one common error.

The programmer can also place simple "If . . . Then" rules on the form to manipulate data on the form, or the programmer may put multiple rules on fields. Conditions may also be programmed into the forms. Examples of conditions are more than/less than, equal to/not equal, visible/not visible, and for checkbox fields, a checked/not-checked condition.

Based on those conditions, here are a few ways that the programmer can manipulate data within a form:

- a. copy from one field or another on the page.
- b. show or hide a field.
- c. enter specific text
- d. lookup a value in a predefined table.
- e. do nothing.

Another great program capability in designing forms is listing the individual information for a group with a minimum of design work. For example, if the programmer wants a list of each employee's name, address, and SSN number, the programmer would easily be able to pull in this information using a matrix by using as few as six data fields.

First, a matrix, as used here, is any set of fields that display each employee's information in a set of fields that repeat as many times as there are employees organized in rows or columns.

1. A matrix is setup by first adding the fields to a form. Using the above example, six blank fields would be added.
2. When it comes time to name them, the user makes sure that each matrix field name ends with an asterisk, making them distinctive from non-matrix fields. To continue using the above example, the names of our six fields would be, EName*, EAddress*, ECity*, EState*, EZip*, and SSN*.

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3. After they are named, the user would determine the type of data in each field and any special formatting required to do to each field.

4. The program does have the capability to calculate and recalculate totals for each employee within a Matrix. This is especially nice when correcting totals or reported amounts. The user can use simple "If . . . Then" rules to manipulate the data within the matrix for each piece of information.

5. After the fields are named, the next thing task is to determine how many times to repeat this information on this page and how far apart to space the repeating information. The user has several ways to determine the distance between columns or rows, but when the Matrix is initially programmed, it must be entered as a number of pixels based on 72 pixels per inch.

6. After determining the number of times this information is repeated on a page, the programmer must determine whether to repeat this page as many times as it takes to list all the information on this template page, or to do a continuation page. For example, if there are 50 employees and the matrix repeats 10 times on a page, does the user want to repeat this page 5 times to list all the employees on this template, or does the end user have another form page that continues the list of employees?

The user can also spawn or pull up other forms based on conditions of certain data fields on the current page. For example, if the form the user is filling out requires the company to make a payment, the user can set a simple condition stating that if the Payment Due data field is more than 0, then open a Payment Coupon and fill in the amount to be submitted.

The program also has the capability to recreate the common barcode types used on forms issued by government agencies. The user can pull information from the data on the form, and manipulate that information in many different ways stated above, and recreate the barcode to the government agency's satisfaction.

Another feature is the ability to calculate multiple check digits. A check digit is a result of a calculation on specific data.

For example, a Modulus 10 check digit is a way to calculate a single digit result on a number, by multiplying each digit by 2 or 1, adding up the resulting number and dividing by ten, then subtracting that result from the next multiple of 10. Normally, the program would have to split out each digit separately, multiply them by 1 or 2, then add all digits, then dividing by 10, then subtracting the remainder from the next multiple of ten. This gets very tedious the longer the number gets. However, the program can do this very simply, by making this check digit field a special field named Checksum and then programming it what field to use in the algorithm and what algorithm to use, from the list of preprogrammed algorithms.

Another feature the program is capable of producing is scanlines, which are required by some various forms. A scanline is line of data in a specific font that combines some vital information on the form or manipulated from data on the form that is scanned in to speed the processing of that business's form.

For example, a simple scanline is 0101021231021234567893234567. The following is an explanation of the information in it and how it is created.

1. First, 99% of all known scanlines have a specific font it is created in, OCR-A.

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2. Secondly, this scanline contains 5 pieces of data.

a. 010102, is the beginning date, 01/01/02, for the data included in this form.

b. 123102, is the ending date, 12/31/02, for the data included in this form.

c. 123456789, is the Federal EIN, 12-3456789, for this sample.

d. 3, is the Checksum that was calculated based on the Federal EIN using a generic Modulus 10 checksum.

e. 234567, is the State ID number, 234567, for this sample.

3. Thirdly, the program uses the fields to format the data displayed on the form to a form that can be used in a scanline.

4. Lastly, the program uses the combined field type to combine the multiple intermediary fields into a final scanline.

When the time comes to update the form, a great feature is the ease of which the form's data fields can be updated on the form by going through the above process with an existing form file.

The program has the capability of creating a version of the form for electronic filing by copying or manipulating from data displayed on the screen. For example, if the electronic file requires that a list of employees' first names to be limited to 15 characters, however, the paper form has no such limitation, the program has the capability to accommodate this. What the programmer would do is to copy the employee first name field, that is visible and editable, to another hidden field that only allows 15 characters and then use that field for the electronic file. In another example, if the electronic file needs the filing date in the format YYYYMMDD and the form displays it as MM/DD/YYYY, the program can accommodate this as well. All that is needed is a hidden date field with the necessary format specified and a rule to copy from the visible filing date field to this hidden field.

The program allows for the capability of saving 1100 any form as an editable web form for Mac or Windows, that calculates and can have data imported into it. The way the program does this is to export the form as a web page, which would export a Mac web page, a Windows web page and a Printable web page. This form would then be loaded onto the seller's web server and available on a web site. The customer can either manually fill in all values, or upload a data file that will fill in the web form for them making whatever calculations and manipulations necessary.

Upon completion of the form design in the program, RFExporter 1200 is used. RFExporter is a small MacOS utility that converts the created form files into plain text files for export to other platforms, such as Windows. The forms are stored on the MacOS computer server in a proprietary binary format, including additional configuration data, which is not needed for Windows. The exporter converts each of the form elements (e.g. lines, text fields, calculations, etc.) from the base format to the tab delimited text form, stripping out any information, which is not needed for cross platform use. The program operates in single form or batch mode to convert multiple files at once.

The program also contains a Forms Reader/Encrypter/Decrypter- or FRED subprogram. The FRED subprogram is a multi-purpose in-house tool used by the form designers during the creation of a form. In its preferred embodiment, it consists of a tab-based dialog with multiple tabs across the top.

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The first tab allows encryption, decryption, and index generation. FRED's primary purpose is the creation of encrypted form files which have a specific file suffix, such as ".AFM", from corresponding form source files which have a text (".TXT") file suffix as well as reversing the process by decrypting ".AFM" files into their corresponding ".TXT" files. The first tab is laid out as follows: There are two directory selection controls located at the top of the property page, the first of which is the directory where the forms are located, and the second of which is the directory where the ".TXT" index file is to be located. A windows-explorer style directory and file selection control adorns the center of the first property page. Finally the form selection list is located at the bottom of this property page. Multiple files may be selected from the file selection list and added to this list. This allows forms to be added from more than one directory at a time. To the right of the form selection control are a series of buttons that allow for manipulation of the list, generation or appendage of the ".TXT" file, and encryption of forms on the form selection control.

The second tab contains a list control that facilitates the viewing of the aforementioned ".TXT" file in a convenient sort-able table view. Columns may be sorted by clicking on their headers.

The third tab is used for obsolescing old forms on the seller's updater FTP site. Forms are selected and added to the obsolete form list on the FTP site.

The fourth tab is used for updating the form records in the seller's local database to match the forms.txt and source form files. The user simply selects the folder that contains the form *.txt files, and all forms in that folder are added to or updated on the forms database.

The third main component is the viewer 30. The viewer will generate a report 1400 by merging the data in the AUF file 20 with specific fields in the form file 10. It performs the calculations and allows the user to review and change the field values. The forms/reports may be saved, printed, and e-Filed. In addition, the program has the ability to securely (using encryption algorithms) transmit forms/reports with data, as well as other critical company information, across the Internet to an e-File Server.

This table lists the meanings of the various symbols used throughout this document.

Data File Description

Symbol	Meaning
→	Tab (ASCII code 9 or similar command)
¶	Carriage return (ASCII code 13 + 10 or similar command)
↪	Line continuation

The forms index file provides the vendor application with information on the forms available to the program. This ASCII text file is named Forms.txt and can be found in the program application directory. It contains records with tab-delimited fields terminated by a carriage return. Each record describes a single form. For example:

```
[Form Name] → [Display Name] → [State] → [Form Type] →
[Modify Date] →
↪[Skip PAY] → [Report Period] → [Data Breakout] → [Description]
¶
```

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TABLE 1

Fields in forms index file.		
Field Name	Description	
1 Form Name	Name of the form to place in the configuration file (maximum of 32 characters)	
2 Display Name	Name of the form to display in the list (maximum of 32 characters)	
3 State	State abbreviation or FE for federal (2 characters)	
4 Form Type	Type of form (Federal, State, Local, FUTA, SUTA, New Hire, Sales Tax, Direct Deposit, W2)	
5 Modify Date	Date the form was last modified (formatted as MMDDYY)	
6 Skip PAY	Flag indicating whether PAY records in the AUF can be skipped (0 = need PAY records, 1 = skip PAY records)	
7 Report Period	Report period of the form (1 = any, 2 = annual, 3 = quarterly, 4 = monthly, 5 = daily)	
8 Data Breakout	Data breakout requirement of the form (1 = annual, 2 = quarterly, 3 = monthly, 4 = daily)	
9 Description	Description of the form (maximum of 254 characters)	

The Report Period field indicates what choices should be available to the user for the report period. If the value is 1, then there should be a choice of Annual, Quarterly, Monthly, Daily, or Between. For the other values, there should be a single choice of Annual for 2, Quarterly for 3, Monthly for 4, and Daily for 5. If the choice is Annual, then the year is selectable. If the choice is Quarterly, then the quarter and year are selectable. If the choice is Monthly, then the month and year are selectable. If the choice is Daily, then a specific date is selectable. If the choice is Between, then the first date and last date for a date range are selectable.

Here is an example for a federal form.

```
940_Form → 940 Form → FE → Federal → 032700 → 1 → 2 → 4 →
↪Use this form to report federal unemployment wages and taxes. ¶
```

This indicates that the 940 Form is a federal form last modified on Mar. 27, 2000. The PAY records can be skipped in the AUF, so only the TOT records are needed. The form has an annual report period and requires daily total breakouts.

Here is a specific example for a state form.

```
CA_DE-6_Form → DE-6 Form → CA → State → 101100 → 0 → 3
→ 2 →
↪Use this form to report employees and their quarterly wages. ¶
```

This indicates that the DE-6 Form is a CA state form last modified on Oct. 11, 2000. The PAY records are needed in the AUF. The form has a quarterly report period and requires quarterly total breakouts.

The Aatrix Universal File (AUF) 20 contains the report data exported from the vendor application. Through this ASCII text file, data from the vendor application is seamlessly imported 800 into the program and used to populate the form fields. It contains only the data for a selected reporting period based on the guidelines programmed into the forms. So the AUF generated for a form the user is filing for the first quarter of the year must only hold data pertaining to the first quarter of the year.

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The AUF contains records with tab-delimited fields terminated by a carriage return. The first field holds a tag that defines the record and indicates what fields will follow.

[TAG] → [Field 1] → [Field 2] → . . . → [Field n] ¶

The number and ordering of fields is critical. If fields are empty, all tabs must still be present within the record. For instance, if there is a record with four fields and the first and fourth are left blank, then it will be written as:

[TAG] → → [Field 2] → [Field 3] → ¶

Comments may be designated in the AUF by two colons (::) or similar keystrokes. Everything after the two colons will be ignored until the next carriage return or the end of the file.

:: [Comment] ¶
[TAG] → [Field 1] → [Field 2] → . . . → [Field n] :: [Comment] ¶

Each of the fields has a field type with optional criteria.

TABLE 2

Field types.	
Field Type	Description
CHAR [format][n]	Character string [format] is the string format code (see Table 4) [n] is the number of characters
DATE [format]	Date [format] is the date format
DECIMAL [n][range]	Decimal number [n] is the number of places after the decimal point [range] is the range constraint
INT [range]	Integer number [range] is the range constraint

Fields with the field type CHAR can have a string format code that designates the possible formats accepted in the field.

TABLE 3

String format codes.		
Format Code	Description	Examples
FEIN	Federal employer identification number	12-3456789 12 3456789 123456789
PHONE	Phone number	(123) 456-7890 (123) 456 7890 123-456-7890 123 456 7890 1234567890
SSN	Social security number	123-45-6789 123 45 6789 123456789
ZIP	Zip code	12345 12345-6789 12345 6789 123456789

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Year values can range from 0 (or 00) to 9999. Years from 0 (or 00) to 15 are assumed to be 2000 to 2015. Years from 16 to 99 are assumed to be 1916 to 1999. Years from 100 to 9999 are assumed to be the full year. Decimal and integer values may either include commas or not.

In general, record fields should remain empty if the data is unavailable or not applicable. For example, a field for a dollar amount should be left blank rather than set to 0.00 if the value is unknown or does not apply. Otherwise the form may have fields filled in when they should not be. the program will alert the user by highlighting the field in red if there are fields on the form that are empty but require a value.

The vendor application may not store the values for some fields in a format that is compatible with the AUF requirements. For instance, names or addresses may be stored as single values. When these are placed in the AUF, they must be split apart in most cases.

The forms also impart various data requirements for the AUF. These requirements are found with other form information in the forms index file. By examining the data requirements for a form, the vendor application can determine what data it should supply in the AUF to correctly fill in as much of the form as possible.

Report Generation

The viewer will generate a report by merging the data in the AUF 20 with specific fields in the form 10. It performs the calculations and allows the user to review and change the field values. The forms/reports may be saved, printed, and eFiled. In addition, the Program has the ability to securely (using encryption algorithms) transmit forms/reports with data, as well as other critical company information, across the Internet to Aatrix's eFile Server.

Registration codes are needed to fully enable the forms used in the program. The user will receive all forms, which will work in demo mode only, printing the word DEMO across the form so that it cannot be printed in certified format for filing. This allows users to "try before you buy" for any form and makes distribution easy, since all the forms are included all the time. When the user wishes to purchase a form, they call a sales center, providing their EIN and the state(s) they need. The selling company will provide a multi-user registration code generator that allows the salesperson to give the user a registration code enabling a specific state form set for up to one year. There is also an option for the user to receive a code for all states, providing they have purchased the all-states package. The program will warn the user one quarter in advance of registration code expirations and prompt the user to call in for a new registration code.

Each form is associated with a form category. Some potential form categories are:

- Federal/State Payroll
- Sales Tax
- Income Tax
- HR
- Cafeteria/Flex
- Pension

When a registration code is generated, it will be built for a specific EIN or similar identifier, one or more form categories, a specific state or all states, and an expiration date.

The viewer presents an onscreen representation of the form to the user. Lines, boxes, and text are used to draw the background of the form. Fields are overlaid on top of this background. Some fields are editable by the user, whereas others are non-editable and based on calculations and rules.

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If you change one field, it may result in automatic changes in other fields throughout any pages of the report.

A report can contain many pages, which can have different form backgrounds and field layouts, though only one page is shown at a time. The user can quickly switch pages through next and previous page buttons, keyboard hotkeys, or a dropdown list of all pages in the report. New pages can be added easily for certain reports that allow for additional information. Reports with employee information can have pages added to include more employees. Other reports can add pages for optional forms based on field conditions. For instance, if the field for the amount due on a report is greater than zero, then a dialog may ask the user if they want to include the related check form to pay this amount.

A report can be saved as either a draft or history and then opened again at a later time. It starts as a draft, which can be modified and is yet to be completed. When a report is saved as a draft, the user can continue working on it later on when it is re-opened. Only one draft can exist for a given form. The user will see a list of available drafts if they choose to open a draft.

When the user selects an operation that will finalize the report, such as printing a final copy or e-Filing, it becomes a history and is saved as such. Histories cannot be modified and many can exist for a given form. If there was a corresponding draft file before the history was saved, it is backed up and removed from the list of drafts. The user will see a list of available histories if they choose to open a history.

Hard copies of reports can be printed **1400** from the program. There are a few factors that can affect the printout. The first factor is whether the form is demo only or registered. If it is a demo, then a "Demo" watermark will be placed across the printout. The second factor is whether the printout is a draft or final copy. If it is a draft copy, then a "Draft" watermark will be placed across the printout. The third factor is whether the printout is an employer copy, which is for the user's records only, or a certified copy, which is to be sent in to an agency. If it is an employer copy, then a "For Records Only" watermark will be placed across the printout.

A certified copy can be one of three certification types: full certification, alternate form, or certified as numbers only. A form is assigned only one of these certification types. Full certification indicates that the form is an exact duplicate of the agency form. Alternate form indicates that the printout is a special layout for data on blank paper. Certified as numbers only indicates that an existing, preprinted form is required and the data will be printed to fill it out.

Different printer drivers may not print in exactly the same position on a page. The page align feature allows the user to adjust the print margins to ensure that data prints correctly on a pre-existing form. To help in the alignment process, the user can print a special alignment form and a test page of the current form.

Windows TrueType fonts were created to resolve printer and screen display issues in the program. The requirement set by some filing agencies for font parameters, like horizontal line length and vertical spacing, is extremely specific. Alphanumeric and barcode fonts were specifically designed to fit the needs of the program and the way it renders fonts on screen and on the print so the duplicated form exactly matches the original.

Electronic Filing

In order to e-File, the user must initially complete an e-File enrollment process. The program will present a step-

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by-step wizard dialog requesting information on the user. After the wizard is finished, a form will be displayed containing this information and asking for optional information. The user then prints, signs, and submits the form to the selling company. Ideally, a user ID and password will be sent to them through e-mail. If not, other arrangements may be required to obtain the ID and password. These are entered into the program to activate e-Filing.

When the user is ready to e-File a report, they are given another wizard dialog, which first requires them to enter their password. Then the wizard asks for credit card or other payment form information. The user can choose whether to have this stored for the next time they e-File. Once this information is completed, the program connects to the seller's e-File Server over the Internet. Pricing information is sent back to the client where the user is asked to confirm the e-File operation. Upon confirmation, the e-File is transferred to the server with a progress bar dialog indicating the intermediate status.

Forms Updating

Updates **1450** will be available through a command in the program. This will update the forms and application files to their most recent versions that may be required by the final destination user. Ensuring current form use eliminates possible problems when old forms are filed with federal, state, or local agencies or other such entities. The user will also have all the latest features and bug fixes, if any. After the Updater finishes, an Internet browser window opens to a website customized for the software vendor. Maintained by the seller, this website will contain news and information on the forms and the program itself.

In order for clients to keep the programs and their forms data files up to date, the seller has provided the customers/users with the updater **1450**. This program may be run from either Window's Start Menu or from the main program. Using the Updater allows the customers to always have up to date versions of the program and it lets them keep their forms up to date.

The program Updater is actually broken into two parts, the Updater (also known as the Meta-Updater) and the Forms Updater. The Updater will connect to the seller's FTP site and check for new versions of Forms software, including the Updater itself. It will download all new files that need to be updated and then run the Forms Updater.

The Forms Updater allows the user to select which forms to download forms from, and downloads any new or updated forms from that category. It is laid out in a standard Windows style wizard.

The program also contains a viewer that is an in-house tool for the seller that allows the user to graphically view all instances of a line type in a form (either a ".TXT" or ".AFM" file). It uses MDI (Multiple Document Interface) to display any number of forms at once. Each document is actually a grid where rows represent lines and columns represent fields. On the left is a dockable tree view, which allows the user to select a line type and which fields of that line are visible. On the bottom is a dockable tab view that has two tabs: one for field values and one for search results.

For instance, a forms developer may want to view only the field lines of an open form. The user would first select the field checkbox on the tree-view to the left. The user would also need to expand the tree and select which fields he/she would like to be displayed on the main grid window. Finally the user would click a button immediately below the tree control. The button could be denoted as "generate". This

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would update the current document to display all field lines of that form and the specified fields.

When an item is selected in the grid view, all fields of that line are displayed in the field values tab at the bottom of the screen in a report list control. Each row of this report represents a field. Information displayed for each field include field ID (one or two letters representing the field in the old style) the field name, its current value, and a detailed description of the field.

The in-house viewer has the ability to perform field searches across multiple forms. When the user selects this option from the menu, the user is presented with a dialog box which prompts for the field type to search (FLD, TXT, etc.), two edit controls which represent what to search for. If the user chooses to use both edit controls, he/she must select from a list the Boolean relationship (And/Or/But not) between the two edit controls. The dialog also prompts the user whether to search in the active form only, all forms in the workspace, or all forms in the active form's folder. In its preferred embodiment, it also provides two checkboxes that allow the user to choose whether to do a case-sensitive search, and whether to limit the result to one search hit per file. Once the search is complete, all search results are displayed in the "Search Results" tab at the bottom of the screen. Clicking on an item in this tab results in the form being loaded (if necessary) and brought to the front in the main view. The line where the search hit took place is highlighted.

The viewer is laid out such that it is reasonably easy to add new reports types. These options are usually accessed from the main menu.

Client/Server Communication

A client/server module is included as part of the invention to facilitate communication between two computers. The server 1500 (FIG. 2C) receives communications from the client and stores a connection list that shows the transfer status. The server also shows the Internet Protocol (IP) address at the client computer, as well as the bytes received.

The server is configurable from a connection tab, which allows an administrator to set file locations. This is where data connections are controlled. The timeout is how long the server will wait for communication before it will stop transmission and send a "timeout" error to the user.

The server overview is where server status can be observed. Ideally, red radio buttons indicate a portion of the server is that is inactive, while green radio buttons indicate the specific portion that is active. The server authenticates users using the communication with the database.

The Client\Server module is an invertable, secure, synchronous socket layer based on UNIX\BSD's implementation of berkley sockets running over TCP/IP. It is invertable in the sense that the socket code can act as either a server and/or a client. The distinction between a client or server socket is made primarily at the point of authentication and is determined by which socket initiates the call (Client).

Discrimination:

The security of the channel is accomplished through an authentication sequence:

- 1.) a random number (cr1) is generated by the client and this number and the user Id are sent to the server.
- 2.) the server looks up the user Id and its associated password
- 3.) a random number (sr1) is generated by the server and sent back to the client.
- 4.) the server hashes sr1 with the associated password to form the session key.

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5.) the client receives sr1 and then hashes it with its password to form the session key.

6.) the client encrypts sr1 with the session key and sends it to the server.

7.) the server receives and then decrypts E(sr1) with the session key.

8.) if the decryption of E(sr1) is successful then the server encrypts cr1 and sends it to the client

9.) if the decryption of E(cr1) is successful then authentication is complete.

10.) all subsequent communications are triple DES encrypted in CBC mode with the key Hash (sr1+password).

All data sent over the channel is converted into proprietary packets, the packets work in conjunction with authentication and encryption to increase security.

Packet Diagram Goes Here->:

LONG	m_1TimeStamp;
DWORD	m_dwCRC;
WORD	m_wVersion;
BYTE	m_bCtrlNum;
BYTE	m_bTCPNum;
UINT	m_uLength;
BYTE	m_Buffer[FPACKET_MAX];

The CRC (cyclic redundancy check) is calculated and added to the packet before its encrypted and sent. The receiving socket decrypts the packet and calculates the CRC for the data in the packet. It then compares this value to the one contained in the packet header and if they match, suggests with a high probability that the data received is the same as that which was sent. A time stamp accompanies each packet to prevent "Replay" of packets and to produce a unique initialization vector for the cypher block chaining mode of encryption.

Additional socket layer properties include the following:
fully multithreaded to facilitate concurrency
allows for dynamic (ctrl codes embedded in packets) client/server communications
or, client\server communications can be scripted
sockets auto detect subsystem or network failures and disconnect gracefully
sockets respond to mal-formed packets rationally and disconnect gracefully
resistant to denial of service attacks involving port scanning and repetitive connection attempts
socket layer acts as a surrogate to protect the database from direct user access.
controls all connections to the ODBC compliant database and enforces table and record locking
to prevent data corruption or database failure due to the multithreaded environment.

Database Architecture

As form files are received they are stored 1600 in a database.

The data base control layer is designed to work with a database that is ODBC compliant and supports transactions.

Access to the database is strictly controlled on a per thread basis, this access falls into two categories:

- 1.) Connections to the data source itself through the ODBC driver.
- 2.) Access to the individual tables through those connections.

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The data base control layer manages connections to the data source by creating the maximum number of connections allowed. It then 'pools' these connections and assigns the next available connection when a request for one is made. These connections are doled out on a per thread basis. A request made for a connection will either receive the next available in the pool or will wait until one becomes available. Access to the individual tables is strictly controlled across all data source connections. Requests to read, modify, or add to tables is managed by the data base layer and is not reliant on the data base in any way for this management. An attempt to access a table currently owned by another thread will result in suspension of that request until that table has been released. This approach not only protects the data source but simplifies data access by exposing a common interface to the developer and freeing him from the responsibility of thread and access management.

An additional benefit of this layer is speed. The connection pooling allows immediate access to the data source without the need to connect to that data source through the ODBC driver at runtime. Frequent allocation and de-allocation of data structures required for connections consumes time and causes memory fragmentation and can increase the chance of system failure and corruption of resources. These processes are eliminated by the data base control layer by creating connections at start up that persist for the life of the program.

To verify the integrity and completeness of input files, a checking application allows a user to open, modify and save files. The files are labeled as a specific type, such as ".AUF". An AUF file has information relating to a user's specific data, as well as version and date information, and is required to be in a specific format. The file checker is a tool for both users and designers of the forms.

In its preferred embodiment, the program will highlight the records that are incorrect by displaying bad records with a red X and good records with a green checkmark. The user can examine and modify these records and then re-save them. The output file is then used as the input file for the viewer application.

Once an AUF file has been opened, the records are displayed in a tree-like structure on the left side of the window. If the user wishes to edit a specific record, it must be selected in this window, or in the main document. Once selected, the record's individual fields will be displayed in the grid at the right-bottom side of the window. The user can then edit these fields as required to make them acceptable for input to the forms viewer application. A list of errors for each record and for each field of the selected field appears in the tab control at the bottom left side of the window. The error tabs, tree control, and record modification tabs are docking controls and may be repositioned by the user.

E-File Creation

To create electronic files (e-files) **2000**, two subprograms are included in the main program. One sets up a template for each different form's format. The other takes the relevant data and places it in a file according to the appropriate template. In this way, the same data structure can always be used as input, but the data in the output file can be positioned as the end user sees fit. The template constructor is called the Electronic File Builder (EFB), and the data-arranging component is called the Converter.

The EFB **2100** was created in response to the varied data and formatting requirements of the entities that accept electronic files. It creates templates for any required electronic format. These electronic formats include, but are not

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limited to government agency formats, ACH formats, or a format required in a database. It lays out a template that describes how data will be ordered in the required file. Each form/report has different requirements for the arrangement of data, so each report must have its own EFB file.

Most forms require that the data be broken up into blocks (or lines) of data. Each block will contain one or more fields (pieces of data). All the required blocks and the fields contained within them are written into a file that is to be sent in one or more electronic mediums, such as diskette, e-mail, or direct transfer to an FTP site.

A particular style of block may only appear once, or may be repeated several times (with different data). Blocks may also be placed in a certain order. The EFB program gives a user a graphical interface in which to specify blocks of data, the order they are to be written to a file, and whether the block appears once or is repeated several times with new data. For example, the new data for repeated fields may constitute information that applies to employees, with one employee per line.

Fields within blocks also are written in whatever order is specified. The designer can set the length, position, and justification of fields within a block. Fields can be concatenated together to form new fields or made to display unchanging (static) data. Empty spaces in fields can be filled with certain characters. Numbers can be formatted with or without decimals. Certain characters can be removed or added to fields as the designer needs.

The Converter works in tandem with the EFB program. Since both work together, any modifications in the EFB program must be reflected in the code of the Converter. While the EFB is meant for forms designers and administrators, the Converter is meant to run automatically as part of a larger process. Properly implemented, the converter requires no user intervention.

The data that is exported from the forms viewer program comes in a consistent format. For example: a line number, followed by a field name, an employee number (0 if company data), and the information that pertains to that employee and field (the data). Also included is the name of the EFB file that corresponds to the report to be electronically filed.

The Converter **2200** reads the exported data and loads the appropriate EFB. It runs through the blocks and fields in order, matching the fields in the data file with the fields in the EFB file **2300**. Fields are manipulated as set in the EFB, with the proper justification, concatenation, removal of characters, or addition of characters. Fields that don't exist in the data file are filled as is specified in the EFB. All fields are then placed according to their proper position. As part of the process, a separate EFB file that contains the format for the file name is opened, which can pull data from the exported file if necessary. A final output file is saved **2400**, which is in the correct form to be sent to the government agency.

Electronic Filing of E-Files

The E-File Administration Wizard (EAW) **3000** is an in-house utility that is used by the seller to complete the e-file submission process.

The main dialog, which appears at all times, allows the user to perform several functions. It allows the user to log in or out, or process one of the forms on the list to the left. A form can only be processed if a user is logged in. Detailed information about the form will appear in the list control including such things as the form name, the client, the available submission methods, and the due date.

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In its preferred embodiment, a user selects **3100** a form for processing and clicks the "Process Selected Form" button, a dialog appears which allows the user to select **3200** the preferred method of form submission from a list of available methods. When the user selects a method of submission from the available methods of submission, the appropriate wizard is launched. There are a total of four submission wizards: paper printout, floppy magnetic media, FTP, or email.

EAW spawns several other tools in order to complete the submission process. The first two external tools used by EAW are a forms viewer and the builder, which are used for printing out forms, mailing labels, and floppy diskette labels. They are also used for the preparation of magnetic media files. The converter is used to convert magnetic media files into a format that is submitted by the final form user to whom the current form is to be submitted.

The paper submission wizard **3300** has two pages. Page 1 allows the user to spawn forms viewer or the builder to print out the form for submission. Page 2 also spawns forms viewer, this time for the purpose of printing the mailing labels. When this step is completed, the form is marked as submitted in the database.

The floppy diskette submission wizard **3400** has five pages. Page 1 prepares the magnetic media file using forms viewer and the converter. Page 2, launches forms viewer to print mailing labels. Page 3 launches forms viewer to print floppy diskette labels. Page 4 launches forms viewer to print the transmittal letter. Page 5 writes the magnetic media file to a floppy diskette. After this step the form is marked as submitted in the database.

The FTP submission wizard **3500** has two steps. Page 1 prepares the magnetic media file using the program and the converter. Page 2 allows the user to provide FTP information such as FTP site, user-name and password, and so forth. Default data for this page is inferred from the entity to whom this form is to be submitted. When this page is finished, a progress dialog will appear conveying the progress of the FTP transmission. Once this step is completed, the form is marked as submitted in the database.

Finally, the E-mail submission wizard **3600** has two steps. Page 1 prepares the magnetic media file using the viewer and the converter. Page 2 allows the user to provide e-mail information such as email address, subject line, content, and carbon copies. Default data for this page is inferred from the entity to whom the form is to be submitted. Once this step is completed, the form is marked as submitted in the database.

Although the present invention has been described with reference to preferred embodiments, workers skilled in the art will recognize that changes may be made in form and detail without departing from the spirit and scope of the invention. Therefore, the above descriptions to specific hardware, software subprograms and functional elements, and other specific features should not be taken as limiting the scope of the invention, which is defined by the aforementioned claims.

What is claimed:

1. A data processing system for designing, creating, and importing data into, a viewable form viewable by the user of the data processing system, comprising:

- (a) a form file that models the physical representation of an original paper form and establishes the calculations and rule conditions required to fill in the viewable form;
- (b) a form file creation program that imports a background image from an original form, allows a user to adjust and

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test-print the background image and compare the alignment of the original form to the background test-print, and creates the form file;

- (c) a data file containing data from a user application for populating the viewable form; and
- (d) a form viewer program operating on the form file and the data file, to perform calculations, allow the user of the data processing system to review and change the data, and create viewable forms and reports.

2. The data processing system of claim 1, further comprising a client computer and a server computer.

3. The data processing system of claim 2, wherein the form viewer program executes on the client computer and the server computer executes a database program, and wherein the form file and data file are transmitted from the client computer to the server computer for storing in a database on the server computer.

4. The data processing system of claim 3, wherein the form file and data file are transmitted from the client computer to the server computer over a network.

5. The data processing system of claim 1, further comprising an electronic file creation program that merges data exported from the form viewer program with a template that specifies the final format for electronic filing to create an efile form.

6. The data processing system of claim 5, further comprising a client computer executing the electronic file creation program.

7. The data processing system of claim 6, further comprising a server computer executing an electronic filing program for electronically filing the efile form.

8. The data processing system of claim 7, wherein the efile form may be filed by submitting the efile form on floppy diskette.

9. The data processing system of claim 7, wherein the efile form may be filed by submitting the efile form by the file transmission protocol (FTP).

10. The data processing system of claim 7, wherein the efile form may be filed by submitting the efile form by email.

11. A method for designing, creating, and importing, on a digital computer having a memory and a processor executing a stored program, data into, a viewable form viewable by the user of a data processing system, the viewable form replicating a paper form, comprising the steps of:

- (a) capturing an image of the paper form and saving the image into the computer's memory as a background image;
- (b) saving all text appearing on the paper form into a text file;
- (c) executing the stored program to align and adjust the background image to exactly replicate the paper form, thereby producing a representation of a viewable form in the computer's memory;
- (d) executing the stored program to import the text from the text file and position the text on the background image in the representation of the viewable form in the computer's memory;
- (e) executing the stored program to import data from another application program into the representation of the viewable form in the computer's memory thereby populating data fields on the representation of the viewable form with the imported data;
- (f) executing the stored program to manipulate the data in the data fields on the representation of the viewable form; and
- (g) printing an exact representation of the paper form with the manipulated data.

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12. The method of claim 11, further comprising the step of saving the viewable form as an editable web page.

13. The method of claim 11, further comprising the step of converting the viewable form to plain text and exporting the plain text to another computer system.

14. The method of claim 13, further comprising the step of encrypting the plain text.

15. The method of claim 11, further comprising the step of transmitting the viewable form from a client computer to a server computer and storing the viewable form in a database on the server computer.

16. The method of claim 15, wherein the viewable form is transmitted from the client computer to the server computer over a network.

17. The method of claim 11, further comprising the step of converting the viewable form into an efile form suitable for electronic filing.

18. The method of claim 17, further comprising the step of electronically filing the efile form.

19. The method of claim 18, wherein the step of electronically filing the efile form is performed by storing the efile form on a floppy diskette.

20. The method of claim 18, wherein the step of electronically filing the efile form is performed by submitting the efile form over a network by means of the File Transfer Protocol.

21. The method of claim 18, wherein the step of electronically filing the efile form is performed by submitting the efile form by email.

22. A method for designing, creating, and importing, on a digital computer having a memory and a processor executing a stored program, data into, a viewable form viewable by the user of a data processing system, the viewable form replicating a paper form, comprising the steps of:

(a) a form designer executing a forms designer program in the digital computer, the forms designer program allowing the form designer to create a form file that, when subsequently printed, will exactly match an original paper form and will permit calculations and rule conditions required to fill in the form;

(b) executing a data file importing program in the digital computer, the data file importing program seamlessly importing data from an end user application program into a data file; and

(c) subsequently an end user executing a forms viewer program, the forms viewer program generating a viewable form by merging data in the data file with specific fields in the form file, allowing the user of the data processing system to review and change the data, performing calculations on the data, and generating a report that exactly matches the original paper form.

23. The method of claim 22, further comprising the step of saving the viewable form as an editable web page.

24. The method of claim 22, further comprising the step of converting the viewable form to plain text and exporting the plain text to another computer system.

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25. The method of claim 24, further comprising the step of encrypting the plain text.

26. The method of claim 22, further comprising the step of transmitting the viewable form from a client computer to a server computer and storing the viewable form in a database on the server computer.

27. The method of claim 26, wherein the viewable form is transmitted from the client computer to the server computer over a network.

28. The method of claim 22, further comprising the step of converting the viewable form into an efile form suitable for electronic filing.

29. The method of claim 28, further comprising the step of electronically filing the efile form.

30. The method of claim 29, wherein the step of electronically filing the efile form is performed by storing the efile form on a floppy diskette.

31. The method of claim 29, wherein the step of electronically filing the efile form is performed by submitting the efile form over a network by means of the File Transfer Protocol.

32. The method of claim 29, wherein the step of electronically filing the efile form is performed by submitting the efile form by email.

33. The method of claim 22, wherein the form file further comprises static text and drawn elements.

34. The method of claim 22, further comprising the step of the forms designer capturing an image of an original form and saving it as a background image.

35. The method of claim 34, further comprising the step of the forms designer using the forms designer program to place, adjust, and test print the background image and to compare the alignment of the original form to the background test print.

36. The method of claim 22, further comprising the step of the forms designer formatting text in specific fields in the form file.

37. The method of claim 36, wherein the step of formatting text in specific fields in the form file further comprises changing text font and text size and changing text type, wherein text type is selected from the group consisting of: bold, italics, underline, left-justified, right-justified, center-justified, and rotated.

38. The method of claim 22, further comprising the step of the forms designer adding graphics to the form file, the graphics being selected from the group consisting of: lines, boxes, circles, and triangles.

39. The method of claim 22, wherein the data file contains fields having indicia indicating the type of data, the indicia subsequently being used by the forms viewer program to perform calculations on the data.

* * * * *

EXHIBIT H



AF/Cal 2771
PATENT #7/A
00100-P0017A WWW/TMO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	Wesley W. Whitmyer, Jr.
Serial No. 08/726,999	Filing Date: October 7, 1996
Title of Application	System Automating Delivery of Professional Services
Group Art Unit: 2771	Examiner: Hosain T. Alam

Box AF
Assistant Commissioner for Patents
Washington, DC 20231

Sir:

This is in response to the outstanding Final Office Action mailed August 18, 1998. Applicant believes that this amendment will place the application in condition for allowance. 37 CFR 1.116; MPEP §714.12. As such Applicant submits that this amendment may be properly entered, and Applicant respectfully requests that this amendment be entered in the above-referenced application.

AMENDMENT AFTER FINAL ACTION

In the Claims

Please amend the Claims as follows:

1. (Amend)
A device for automatically delivering professional services to a client comprising:
a computer;
a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;

Certificate of Mailing: I hereby certify that this correspondence is today being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231.

September 1, 1998

Fidelia K. Rice
Fidelia K. Rice

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9-19-98
A1
NOT ENTERED

RECEIVED
53 SEP - 9 AM 10:08
GROUP 2700

Wesley W. Whitmyer, Jr.
Serial No. 08/726,999
Page 2

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field [date] to retrieve a client reminder;

A¹ software executing on said computer for automatically generating a client response form based on the retrieved client reminder;

a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

(Amended)

5. A device for automatically delivering professional services to a client comprising:

a computer;

a docket database containing a plurality of client reminders, each client reminder including a matter identification number and a type of reminder identification, each of the client reminders also comprising a date field having a value attributed thereto;

A² software executing on said computer for automatically querying said database by the values attributed to each client reminder date field [date] to retrieve a client reminder;

a client information database containing a plurality of client information;

software executing on said computer for automatically querying said client information database by the matter identification number to retrieve client information;

a forms database containing a plurality of response forms;

software executing on said computer for automatically querying said forms database by the type of reminder identification to retrieve a response form;

Wesley W. Whitmyer, Jr.
Serial No. 08/726,999
Page 3

software executing on said computer for automatically merging the date and the client information with the response form;

A² a communication link between said computer and the Internet;

software executing on said computer for automatically transmitting the client response form to the client through said communication link; and,

software executing on said computer for automatically receiving a reply to the response form from the client through said communication link.

(Amended)

9. A device for automatically delivering professional services to a client comprising:

a computer;

a database containing a plurality of client reminders each of the client reminders comprising a date field having a value attributed thereto;

software executing on said computer for automatically querying said database by the values attributed to each client reminder date field [date] to retrieve a client reminder;

A³ software executing on said computer for automatically generating a client response form and a notice based on the retrieved client reminder, the notice containing a URL;

a web server;

software executing on said computer for automatically transmitting the client response form to said web server and for automatically transmitting the notice to the client; and,

software executing on said web server for automatically transmitting the response form to the client when the URL is activated and for automatically receiving a reply to the response form from the client.

(Amended)

A⁴ 24. A method for automatically delivering professional services to a client comprising the steps of:

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Serial No. 08/726,999
Page 4

A⁴

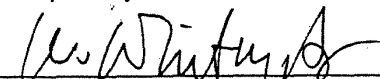
providing a computer;
providing a database containing a plurality of client reminders, each of the client reminders comprising a date field having a value attributed thereto;
querying said database by the values attributed to each client reminder date field [date] to retrieve a client reminder;
generating a client response form from the retrieved client reminder;
establishing a communication link between said computer and the Internet;
transmitting said client response form to the client through said communication link; and,
receiving a reply to the response form from the client through said communication link.

REMARKS

Applicant has amended all claims to highlight the novel aspects of his invention and to further distinguish his invention over the prior art. In Paragraphs 12 through 15 of the Examiner's Office Action mailed August 18, 1998, the Examiner has noted that the features upon which Applicant relied in his arguments in the Amendment filed June 8, 1998 are not recited in the rejected claims. Applicant has amended all claims to include such features and respectfully requests that the Examiner reconsider Applicant's arguments as set forth in the June 8, 1998 Amendment.

Respectfully submitted,

September 1, 1998


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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

WHITSERVE LLC,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 18-193 (GMS)
)	
DONUTS INC. and NAME.COM, INC.,)	
)	
Defendants.)	

WHITSERVE LLC,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 18-194 (GMS)
)	
ENOM, LLC,)	
)	
Defendant.)	

DEFENDANTS' REPLY BRIEF
IN SUPPORT OF THEIR JOINT MOTION TO DISMISS

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July 27, 2018

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<i>VideoShare, LLC v. Google, Inc.</i> , 695 Fed.Appx. 577 (Fed. Cir. 2017).....	8
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I. NEITHER THE COURTS NOR THE USPTO HAVE SUBSTANTIVELY ADDRESSED THE VALIDITY OF THE CLAIMS.

In opposing Defendants' motion, WhitServe asserts that the validity of the '468 and '078 patent claims under Section 101 has been upheld by various courts and the USPTO. What WhitServe ignores is that neither those courts nor the USPTO ever found that those claims are valid under the standard set by the Supreme Court's landmark decision in *Alice* that is applicable here. Indeed, the only judge who has opined on the substance of the Section 101 issue raised by the WhitServe patent claims (Judge Mayer of the Federal Circuit) agreed with Defendants that they are invalid because they are not directed to patent eligible subject matter.

In *WhitServe LLC v. Computer Packages, Inc.*, 694 F.3d 10 (Fed. Cir. 2012), the Federal Circuit panel did not decide the Section 101 issue because the Appellant failed to brief it on appeal. Judge Mayer dissented from that decision on the ground that the Court should address the Section 101 issue despite Appellant's failure to brief it. *See id.* at 39-42. Judge Mayer laid out plainly the lack of patentability of the WhitServe patents:

The WhitServe patents are barred at the threshold by [35 U.S.C.] § 101, because they are directed to the abstract idea that it is useful to provide people with reminders of approaching due dates and deadlines... The WhitServe patents purport to solve these problems by disclosing the use of general purpose computers and the Internet to keep track of upcoming client deadlines and to generate client reminders that such deadlines are approaching...[T]he fact that the claimed system is arguably limited to communications between attorneys and other professionals and their clients is insufficient to bring it within the ambit of section 101. Likewise, the fact that the WhitServe patents contain both method and apparatus claims is insufficient to render them patent-eligible.

Id. at 39-41 (internal quotations and citations omitted) (emphasis added).

None of the other decisions cited by WhitServe addressed the substantive issue before the Court here. The district court in *WhitServe v. GoDaddy.com, Inc.*, No. 3:11-cv-00948-JCH (D. Conn.), never decided the Section 101 issue. The court denied both GoDaddy's initial pre-*Alice* motion for summary judgment and its renewed post-*Alice* motion without an opinion and without

providing any comment on the Section 101 issue. That case settled before the court determined validity at trial. Moreover, because all the USPTO proceedings WhitServe cites occurred before the Supreme Court's decision in *Alice*, they were not based on the correct legal standard.

Thus, contrary to WhitServe's assertions, the '468 and '078 patent claims have not been found valid by any court or the USPTO under the current legal standard for Section 101. Instead, Judge Mayer's analysis shows that under the current law those claims are plainly invalid.

II. DISMISSAL AT THIS STAGE IS APPROPRIATE.

Plaintiff agrees that to decide this motion, this Court should consider whether or not there are "factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law." D.I. 18 at 5 (citing *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1356 (Fed. Cir. 2018)). Where there are no such plausible factual allegations in the Complaint, or where the relevant issues can be resolved by relying on the patent specification itself, dismissal is appropriate. *See id.* ("[r]elying on the specification alone may be appropriate where...the specification admits as much"); *Burnett v. Panasonic Corp.*, No. 18-1234 (Fed. Cir. July 16, 2018) ("the district court appropriately assessed eligibility at the pleading stage because the asserted claims [were] patent-ineligible even when accepting as true all factual allegations").

WhitServe fails to point to any factual allegations in its Complaint that raise a genuine factual dispute as to any legally relevant issue. Indeed, WhitServe does not cite to its Complaint at all. Moreover, the specification itself explains plainly what the nature of the invention is, what problem was being addressed by the invention, and admits that the technology recited in the claims was well known in the art at the time of the present invention. *See* D.I. 13 at 2, 10-11. Nor does WhitServe assert that there are any claim construction issues that need to be resolved before deciding the patentability of the asserted claims. Therefore, there is no genuine dispute of material fact relevant to the Section 101 analysis and no bar to dismissal at the pleadings stage.

III. ALICE STEP ONE: THE CLAIMS ARE DIRECTED TO AN ABSTRACT IDEA.

As set forth in Defendants' Opening Brief, the specification makes plain that the asserted claims are directed to the abstract idea of reminding clients of needed professional services based on upcoming due dates and communicating with clients to receive their responses to those reminders. *See* D.I. 13 at 6, 14. There can be no serious dispute that reminding clients of upcoming due dates and communicating about their responses is a method of organizing human activity that predates the claimed invention by decades. Nonetheless, WhitServe makes multiple flawed arguments challenging the abstract nature of the claimed invention.

As an initial matter, WhitServe proffers a baseless argument that Defendants offer several "inconsistent proposals" for the abstract idea. *See* D.I. 18 at 9. Not so. WhitServe cites two places where Defendants characterized the abstract idea (pages 6 and 14), both of which **use identical language to describe the abstract idea.** It then cites to two passages where Defendants point out the failure of the asserted claims to improve computer functionality—not articulating the abstract idea. *See id.* The abstract idea to which these claims are directed is made plain by the specification itself and Defendants have consistently articulated it.

WhitServe's arguments that the asserted claims are not directed to an abstract idea are directly contrary to the controlling case law. As WhitServe itself recognizes, computer-related claims are not directed to an abstract idea when "the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity." D.I. 18 at 12 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016)). Under *Enfish* and its progeny, WhitServe's claims are directed to an abstract idea, because the claims do not improve the functionality of the computer itself, but merely use the computer as a tool to implement the task of automating client reminders. Nowhere does WhitServe even argue that the claims improve computer functionality,

or cite to any part of the specification that suggests such an improvement. The absence of any allegation of improvement in computer functionality resolves the step one analysis.

In its effort to save its claims, WhitServe makes a series of other arguments that lack support in the case law. First, WhitServe argues that its claims are directed not to an abstract idea but to “physical concrete limitations.” D.I. 18 at 8. The Federal Circuit has made clear that the “mere recitation of concrete tangible components is insufficient to confer patent eligibility to an otherwise abstract idea.” *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (despite reciting “concrete, tangible components,” the claims were directed to an abstract idea because “the specification makes clear that the recited physical components merely provide a generic environment in which to carry out the abstract idea”); *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). Numerous cases have held that using generic computer components does not render claims patentable, even though those computer components are physical objects. *See* D.I. 13 at 13-15. The specification and the claims describe only generic computer components – “a client computer”, “software”, “database.” D. I. 13, Ex. 1, Abstract. Indeed, WhitServe’s own reliance on Figure 2 of the ’468 patent further demonstrates this point. The physical components in Figure 2 are a “professional computer,” a “client computer,” and the Internet. WhitServe fails to identify anything in the specification suggesting that these “physical components” are anything other than generic computer components.

Second, WhitServe argues that the fact that the claims require a database containing a plurality of client reminders or specific software confers patent eligibility. Not so. Again, many cases have made it clear that even if a process is “limited to a particular content or a particular source that limitation does not make [the process] other than abstract.” *SAP Am., Inc. v. InvestPic, LLC*, 890 F.3d 1016, 1022 (Fed. Cir. 2018); *see also Intellectual Ventures I LLC v.*

Capital One Bank (USA), 792 F.3d 1363, 1366 (Fed. Cir. 2015) (“abstract idea does not become nonabstract by limiting the invention to a particular field of use”); *In re TLI Commc'ns*, 823 F.3d at 613 (“claims limit[ing] the abstract idea to a particular environment—a mobile telephone system—[] does not make [them] any less abstract”). Having a “specific” type of information in a database simply does not render an abstract idea non-abstract. Moreover, WhitServe admits that the claims require software for “automatically querying said database by the values attributed to each client reminder date field to retrieve a client reminder” and that this required the execution of “a specific function to retrieve a specific item (client reminder).” D.I. 18 at 11. In other words, the computer simply searches the database for upcoming due dates to retrieve reminders for the clients that need reminders. WhitServe fails to identify any technical limitations on the software beyond its description of the claimed function. The Federal Circuit has repeatedly held that claims are not patent eligible when they “claim the function of the abstract idea, not a particular way of performing that function.” *Move Inc. v. Real Estate All., Ltd.*, 721 Fed. Appx. 950, 956 (Fed. Cir. 2018); *In re TLI Commc'ns*, 823 F.3d at 611 (claims unpatentable where “specification fails to provide any technical details for the tangible components, but instead predominantly describes the system and methods in purely functional terms.”). As in these prior cases, the asserted claims do no more than describe the function of the software to be implemented on generic computers.

Third, WhitServe asserts that the generation and transmission of a particularized form through the Internet involves a “specific item from specific precursors using a specifically programmed computer.” D.I. 18 at 11. Contrary to WhitServe’s assertion, it is well settled that “a communication link between said computer and the Internet” does not make the claims any less abstract. In *Ultramercial, Inc. v. Hulu, LLC*, the Federal Circuit, in holding the claims to be

invalid, explained that “[t]he claims’ invocation of the Internet [] adds no inventive concept” and that “the use of the Internet is not sufficient to save otherwise abstract claims from ineligibility under § 101.” 772 F.3d at 716; *see also Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1320 (Fed. Cir. 2016) (“performance of an abstract idea on the Internet is abstract”); *Audatex N. Am., Inc. v. Mitchell Int’l, Inc.*, 703 Fed. Appx. 986, 990 (Fed. Cir. 2017) (“use of the Internet to increase the speed and efficiency of an abstract process... is not enough”). In *DDR Holdings LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014), relied on by WhitServe, the Federal Circuit distinguished the claims at issue in that case from the kinds of claims that “merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet.” Here, the claims do not address a problem specific to computer technology or computer networks like the claims held valid in *DDR*. Instead, the claims cover delivering professional services – a practice known from a pre-Internet world – using computers and the Internet. As WhitServe admits, the claims address “reduc[ing] docketing and communication processing time and eliminat[ing] mistakes that were common in the field at the time of the invention.” D.I. 18 at 13. The claims combine human action and several steps of a docketing system already known in the prior art in an effort to “improve the speed, efficiency, and reliability of performing professional services.” D.I. 13, Ex. 1 at 2:8-9, Ex. 2 at 2:24-25. Under *Alice*, that is the epitome of an invalid attempt to patent an abstract idea implemented on a generic computer. *See Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2358 (2014) (“an instruction to apply the abstract idea...using some unspecified generic computer...is not enough”).

Fourth, WhitServe contends that *Yodlee* supports its position by holding that the defendant’s abstract idea swept too broadly and did not incorporate a key concept of the claims.

See *Yodlee, Inc. v. Plaid Techs. Inc.*, 2016 WL 2982503, at *13 (D. Del. May 23, 2016). Here, Defendants have articulated as the abstract idea to which the claims are directed one that is consistent with—not broader than--the claims-at-issue and encompasses the key concepts of the claims. See D.I. 13 at 2, 10, 11, 14, 16. WhitServe also fails to identify what “key concept” of the claims is not encompassed by the abstract idea articulated by Defendants. For these reasons, the claims of the ’468 and ’078 patents do not satisfy step one of *Alice*.

IV. ALICE STEP TWO: THE CLAIMS LACK AN INVENTIVE CONCEPT.

WhitServe fails to identify any aspect of the claims that legally qualifies as an inventive concept. The Federal Circuit has long held that automating manual processes using computers and computer networks is not an inventive concept. See *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017) (“mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.”); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada*, 687 F.3d 1266, 1279 (Fed. Cir. 2012) (claims invalid where “the computer simply performs more efficiently what could otherwise be accomplished manually.”). WhitServe asserts in a conclusory fashion that the claimed combination “improves inter-office communication and information sharing through configuration of databases” and “improved on the state of the art of communication, docketing, and data transfer systems.” D.I. 18 at 16. WhitServe does not offer any argument that this combination improved the computer technology itself. Instead, the only improvement alleged by WhitServe lies in using computers and the Internet for their ordinary functions to improve the communication process between a client and a professional when services are delivered. Such use of computers and the Internet does not constitute an inventive concept under step two of *Alice*. See *Alice*, 134 S. Ct. at 2357-58; *Intellectual Ventures I*, 792 F.3d at 1367-68.

WhitServe contends that dependent claim 3 of '078 patent adds an inventive concept by requiring that the generated form transmitted to the client be a web page because a web page allows for faster and simpler communication. Again, the fact that the claim requires the Internet or communication via a web page—the basic form of Internet communication—does not make the claim inventive. *See Ultramercial*, 772 F.3d at 716 (“the use of the Internet is not sufficient to save otherwise abstract claims from ineligibility under § 101”). In *VideoShare, LLC v. Google, Inc.*, 2016 WL 4137524 at *7 (D. Del. Aug. 2, 2016), this court held claims to be invalid under Section 101 because “the physical components in the claims, such as the receiving computer, first computer, and web page, merely provide a generic environment for carrying out the abstract idea...over a computer network.” The court noted that “limiting the claims to a particular technological environment, such as *computer networks or a web page*, does not provide an inventive concept.” *Id.* at *9 (emphasis added). The Federal Circuit affirmed. *See VideoShare, LLC v. Google, Inc.*, 695 Fed.Appx. 577 (Fed. Cir. 2017). Thus, limiting the generated form to a web page does not provide an inventive concept.

Finally, WhitServe seeks to bring this case within the scope of the Federal Circuit’s decisions in *Aatrix*, *Berkheimer* and *Bascom*. This effort fails because the asserted claims do not offer an inventive concept that goes beyond automating the known client reminder process using generic computers and the Internet. WhitServe argues that the claimed database “containing specific types of data (plurality of client reminders) and a specific format (comprising a date field having an attributed value)” is analogous to the “data file” in *Aatrix* that the Court held “could have constituted an inventive concept.” D.I. 18 at 18. What WhitServe ignores is that in *Aatrix*, the patentee had substantial factual allegations that explained *how* the claimed data file changed the functionality of the computer. Moreover, the *Aatrix* court stated that “[r]elying on

the specification alone may be appropriate where...the specification *admits* as much.” 890 F.3d at 1356. Here, the specification of the patents-in-suit admits that the claimed database of client deadlines was well-known at the time of the invention:

Several systems have been developed for facilitating some of the functions which professionals must perform. ***Perhaps the most common of such systems is the standard docketing system, which typically contains a database of deadlines. The docketing system notifies the professional of each upcoming deadline a preset time period before the deadline*** by printout, attached terminal, or networked computer.

A disadvantage of docketing systems, however, is that such systems aid in only one of many steps which the professional must perform, ***that step being examining a calendar periodically to notice upcoming deadlines.***

See D.I. 13, Ex. 1 at 1:27-39, Ex. 2 at 1:32-44 (emphases added). The claimed database containing the relevant deadlines was admittedly routine and conventional. The mere fact that the client reminder is sent by the computer to the client instead of the lawyer calling the client after he receives the reminder does not make the database an inventive concept.

Citing *Berkheimer*, WhitServe contends that Defendants truncated the recited limitations of claim 1 to “a computer”, “a database”, “software” and “a communication link between the computer and the Internet” and that Defendants ignored the limitations on each of these components. D.I. 18 at 19. In fact, Defendants discussed the limitations as they are recited in the claims. Claim 1 contains no limitations more specific than “computer” or “communication link between the computer and the Internet” for those elements. Furthermore, as discussed above, the claimed generic “database” containing client deadlines is also not limited other than as to the nature of the information it contains (date information), which the specification concedes was common at the time of the invention. With respect to the “software” for “querying said database by the values attributed to each client reminder field to retrieve a client reminder”, the claim again offers no limitations other than describing the software’s function. The specification also

states that a standard docketing system at the time of the invention was capable of “notif[ying] the professional of each upcoming deadline a preset time period before the deadline by...networked computer.” D.I. 13, Ex. 1. at 1:31-35, Ex. 2 at 1:36-40. The technology at issue in the claims is, *as admitted by the specification*, nothing beyond what was already conventional in the field.

Finally, WhitServe’s reliance on *Bascom* is misplaced. *Bascom* held that “the claims do not merely recite [an] abstract idea...with the requirement to perform it on the Internet or to perform it on a set of generic computer components” but instead the patent “claimed a technology-based solution (not an abstract-idea-based solution implemented with generic technical components in a conventional way).” *Bascom Glob. Internet Serv., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350-51 (Fed. Cir. 2016). By contrast, the claims here do exactly what *Bascom* confirmed is not patentable: reciting an abstract idea with the requirement to perform it on the Internet and generic computer components. Claims for reminding clients of needed professional services based on upcoming due dates and communicating with clients to receive their response to those reminders – and instructions to implement it using generic computer components and the Internet – do not provide an “inventive concept” as a matter of law. Thus, very much contrary to WhitServe’s assertion, the claims do not embody an inventive concept and thereby also fail step two of *Alice*.

V. CONCLUSION

For the reasons set forth in their opening brief (D.I. 13) and above, Defendants respectfully request that the Court dismiss the Complaint for failure to state a claim.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

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July 27, 2018

CERTIFICATE OF SERVICE

I hereby certify that on July 27, 2018, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on July 27, 2018, upon the following in the manner indicated:

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VIA ELECTRONIC MAIL

/s/ Jack B. Blumenfeld

Jack B. Blumenfeld (#1014)

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

<hr/>		
WHITSERVE LLC,	:	
	:	Civil Action No. 1:18-cv-00194-GMS
Plaintiff,	:	
	:	
v.	:	
	:	
ENOM, LLC	:	
	:	
Defendant.	:	
<hr/>		

PLAINTIFF'S REQUEST FOR ORAL ARGUMENT

Pursuant to Local Rule 7.1.4, Plaintiff WhitServe LLC hereby requests oral argument on Defendants' Motion to Dismiss filed on May 7, 2018 (Dkt. 10) and all subsequent filings related thereto (Dkts. 11, 16 and 18).

Date: August 3, 2018

By: */s/ Stamatios Stamoulis*

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CERTIFICATE OF SERVICE

This is to certify that on this 3rd day of August, 2018, a true and correct copy of the foregoing **PLAINTIFF'S REQUEST FOR ORAL ARGUMENT** was filed electronically and served by mail on anyone unable to accept electronic filing. Notice of this filing will be sent by e-mail to all parties by operation of the court's electronic filing system or by mail to anyone unable to accept electronic filing as indicated on the Notice of Electronic Filing. Parties may access this filing through the court's CM/ECF System.

August 3, 2018
Date

/s/Stamatios Stamoulis

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

WHITSERVE LLC,	----- x	
	:	
Plaintiff,	:	Civil Action No. 1:18-cv-00193-GMS
	:	
v.	:	
	:	
DONUTS INC. and NAME.COM,	:	
INC.,	:	
	:	
Defendants.	:	

PLAINTIFF'S REQUEST FOR ORAL ARGUMENT

Pursuant to Local Rule 7.1.4, Plaintiff WhitServe LLC hereby requests oral argument on Defendants' Motion to Dismiss filed on May 7, 2018 (Dkt. 12) and all subsequent filings related thereto (Dkts. 13, 18 and 20).

Date: August 3, 2018

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CERTIFICATE OF SERVICE

This is to certify that on this 3rd day of August, 2018, a true and correct copy of the foregoing **PLAINTIFF'S REQUEST FOR ORAL ARGUMENT** was filed electronically and served by mail on anyone unable to accept electronic filing. Notice of this filing will be sent by e-mail to all parties by operation of the court's electronic filing system or by mail to anyone unable to accept electronic filing as indicated on the Notice of Electronic Filing. Parties may access this filing through the court's CM/ECF System.

August 3, 2018
Date

/s/Stamatios Stamoulis

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

-----X	:
WHITSERVE LLC,	:
	:
Plaintiff,	:
	:
v.	:
	:
ENOM, LLC	:
	:
Defendant.	:
-----X	:

Civil Action No. 1:18-cv-00194-CFC

**NOTICE OF APPEAL TO THE COURT OF
APPEALS FOR THE FEDERAL CIRCUIT**

Notice is hereby given that Plaintiff, WhitServe LLC (“Plaintiff”) hereby appeals to the United States Court of Appeals for the Federal Circuit from the Memorandum and Order entered in this action on July 8, 2019 (Dkts. 25 and 26, respectively) which granted the relief sought by Defendant eNOM, LLC (“Defendant”), including granting Defendant’s Motion to Dismiss with prejudice (Dkt. 10).

Dated: August 6, 2019

Respectfully submitted,

/s/ Stamatios Stamoulis

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Attorneys for Plaintiff

CERTIFICATE OF SERVICE

I hereby certify that on August 6, 2019, I electronically filed the above documents with the Clerk of Court using CM/ECF, which will send electronic notification of such filings to all registered counsel.

/s/Stamatios Stamoulis
Stamatios Stamoulis (#4606)

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

<hr/>		X
WHITSERVE LLC,	:	
	:	Civil Action No. 1:18-cv-00193-CFC
Plaintiff,	:	
	:	
v.	:	
	:	
DONUTS INC. and NAME.COM,	:	
INC.	:	
	:	
Defendant.	:	
<hr/>		X

NOTICE OF APPEAL TO THE COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Notice is hereby given that Plaintiff, WhitServe LLC (“Plaintiff”) hereby appeals to the United States Court of Appeals for the Federal Circuit from the Memorandum and Order entered in this action on July 8, 2019 (Dkts. 28 and 29, respectively) which granted the relief sought by Defendants Donuts Inc. and Name.com, Inc. (“Defendants”), including granting Defendants’ Motion to Dismiss with prejudice (Dkt. 12).

Dated: August 6, 2019

Respectfully submitted,

/s/ *Stamatios Stamoulis*

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Attorneys for Plaintiff

CERTIFICATE OF SERVICE

I hereby certify that on August 6, 2019, I electronically filed the above documents with the Clerk of Court using CM/ECF, which will send electronic notification of such filings to all registered counsel.

/s/Stamatios Stamoulis
Stamatios Stamoulis (#4606)

**United States Court of Appeals
for the Federal Circuit**

WHITSERVE LLC,
Plaintiff-Appellant

v.

DONUTS INC., NAME.COM, INC.,
Defendants-Appellees

2019-2240

Appeal from the United States District Court for the
District of Delaware in No. 1:18-cv-00193-CFC, United
States District Judge Colm F. Connolly.

WHITSERVE LLC,
Plaintiff-Appellant

v.

ENOM, LLC,
Defendant-Appellee

2019-2241

Appeal from the United States District Court for the District of Delaware in No. 1:18-cv-00194-CFC, United States District Judge Colm F. Connolly.

JUDGMENT

THIS CAUSE having been considered, it is

ORDERED AND ADJUDGED:

AFFIRMED

ENTERED BY ORDER OF THE COURT

April 10, 2020

/s/ Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court

**United States Court of Appeals
for the Federal Circuit**

WHITSERVE LLC,
Plaintiff-Appellant

v.

DONUTS INC., NAME.COM, INC.,
Defendants-Appellees

2019-2240

Appeal from the United States District Court for the
District of Delaware in No. 1:18-cv-00193-CFC, United
States District Judge Colm F. Connolly.

WHITSERVE LLC,
Plaintiff-Appellant

v.

ENOM, LLC,
Defendant-Appellee

2019-2241

Appeal from the United States District Court for the
District of Delaware in No. 1:18-cv-00194-CFC, United
States District Judge Colm F. Connolly.

MANDATE

In accordance with the judgment of this Court, entered April 10, 2020, and pursuant to Rule 41 of the Federal Rules of Appellate Procedure, the formal mandate is hereby issued.

FOR THE COURT

May 18, 2020

/s/ Peter R. Marksteiner

Peter R. Marksteiner
Clerk of Court