| No. | |
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In The Supreme Court of the United States

GLASSWALL SOLUTIONS LIMITED, GLASSWALL (IP) LIMITED,

Petitioners,

 \mathbf{v} .

CLEARSWIFT, LTD.,

Respondent.

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

PETITION FOR WRIT OF CERTIORARI

Robert J. Carlson Counsel of Record LEE & HAYES, PLLC 701 Pike Street, Suite 1600 Seattle, Washington 98101 (206) 876-6029 (Telephone) (509) 323-8979 (Facsimile) carlson@leehayes.com Peter J. Ayers LAW OFFICE OF PETER J. AYERS, PLLC 220 Bowman Avenue Austin, Texas 78703 (512) 771-3070 (Telephone) (512) 520-4459 (Facsimile) peter@ayersiplaw.com

Counsel for Petitioners

Dated: May 17, 2019

QUESTIONS PRESENTED FOR REVIEW

This Petition presents the following questions:

- 1. Where a threshold patent-eligibility determination under 35 U.S.C. § 101 is presented in a Rule 12(b)(6) motion to dismiss for failure to state a claim upon which relief may be granted, under what circumstances can assertions of fact pleaded by a patent owner, and statements of fact recited in a patent specification, be deemed "conclusory legal assertions" a court is "not bound to accept as true," pursuant to *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007)?
- 2. Where a patent infringement complaint asserts as fact that the invention claimed improves computer function by eliminating a then-conventional method, does the Federal Circuit's determination that the improvement is also conventional present a question of fact that underlies the legal question of patent-eligibility, pursuant to Berkheimer v. H-P Inc., 881 F.3d 1360, 1368 (Fed. Cir. 2018), petition for cert. filed 2018 U.S. S. Ct. Briefs LEXIS 3613 (U.S. Sept. 28, 2018) (No. 18-415)?

RULE 29.6 STATEMENT

Glasswall Solutions Limited has no parent corporation and no publicly held company owns 10 percent or more of its stock.

Glasswall (IP) Limited is a wholly-owned subsidiary of Glasswall Solutions Limited.

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PETITION FOR A WRIT OF CERTIORARI

Pursuant to Supreme Court Rules 13.5, 21, 22, and 30, Applicants Glasswall Solutions Limited and Glasswall (IP) Limited respectfully petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit.

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a-5a) was issued as unpublished and does not appear in the Federal Reporter; it may be found at 2018 U.S. App. LEXIS 35818. The opinion of the district court (Pet. App. 6a-19a) is not published in the Federal Supplement but is available at 2017 U.S. Dist. LEXIS 196186.

JURISDICTION

The judgment of the court of appeals was entered on December 20, 2018. On March 7, 2019, the Chief Justice extended the time within which to file a petition for a writ of certiorari to and including May 19, 2019. No. 18A907. This Court has jurisdiction under 28 U.S.C. § 1254(1).

STATUTORY PROVISION INVOLVED

Section 101 of Title 35 of the United States Code 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.

I. INTRODUCTION

The Nation's patent system is in a fundamental state of disorder as a result of inconsistent approaches taken by the Federal Circuit in its construction of Section 101 of the Patent Act, 35 U.S.C. § 101. In some matters, the eligibility of a patent's claims and thus the validity of a patent holder's valuable property right is determined on a motion to dismiss under Rule 12(b)(6), by comparison to prior Federal Circuit decisions on wholly unrelated patents, and without accepting as true allegations of fact pleaded in the patent owner's complaint. In other matters, the Federal Circuit acknowledges that the legal question of whether claims are directed to patent-eligible subject matter requires resolution of underlying fact issues, and these fact issues preclude resolution of patent eligibility by a motion to dismiss under Rule 12(b)(6).

In this case, the Federal Circuit invalidated, as ineligible under Section 101, patent claims alleged to improve computer function through methods that avoid disadvantages in the conventional approach to prevent the propagation of computer viruses and other malware. The Federal Circuit opinion upheld a district court order granting a motion to dismiss under Rule 12(b)(6); both the district court and the Federal Circuit reached their decision by analogizing the patent claims at issue to different claims determined as ineligible: claims in a different patent, owned by a different entity, directed to a different function.

The patent owner's amended complaint stated allegations of fact describing a specific improvement

in computer function implemented by the claimed inventions, but these allegations were deemed "conclusory legal assertions," both at the district court and the Federal Circuit, and disregarded. The district court, the Federal Circuit held, was not bound to accept pleaded facts as true in determining whether the complaint stated a claim upon which relief could be granted. The district court made no attempt to analyze the claims in light of the specification, according to the understanding of a person having ordinary skill in the art to which the invention pertains: the court undertook no analysis of what that skilled artisan's training or field would be. Instead, the district court substituted its own determination that the patent claims were directed to an abstraction, because the court believed they looked like claims in a different patent, already deemed patent-ineligible. The Federal Circuit took the same path.

There is widespread acknowledgment among current and former Federal Circuit Judges of the disarray in evaluating patent eligibility under Section 101. A telling example is Judge Plager's concurrencein-part and dissent-in-part in *Interval Licensing LLC* v. AOL, Inc., 896 F.3d 1335, 1348 (Fed. Cir. 2018). Concurring in the majority's opinion, Judge Plager nevertheless opined "the state of the law is such as to give little confidence that the outcome is necessarily correct. The law . . . renders it near impossible to know with any certainty whether [an] invention is or is not patent eligible. Accordingly, I also respectfully dissent from our court's continued application of this incoherent body of doctrine." Id. (Plager, J., concurring-in-part and dissenting-in-part). Judge Linn, author of the Federal Circuit opinion in this case, has similarly described "the abstract idea exception" as "almost impossible to apply consistently and coherently." *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1377 (Fed. Cir. 2017) (Linn, J., dissenting-in-part and concurring-in-part).

Judge Lourie, also on the panel delivering the Federal Circuit opinion in this case, joined Judge Newman in twice lamenting that the law governing Section 101 "needs clarification by higher authority, perhaps by Congress, to work its way out of what so many in the innovation field consider are § 101 problems." *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1360 (Fed. Cir. 2018) ("*Aatrix II*") (Lourie, J., concurring in the denial of the petition for rehearing en banc); *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1370 (Fed. Cir. 2018) ("*Berkheimer II*") (Lourie, J., concurring in the denial of the petition for rehearing en banc).

As these frank opinions acknowledge, the absence of consistent and coherent standards makes it impossible for patent owners in multiple industries to protect valuable innovations. This Court's intervention is needed, both to bring clarity to court application of Section 101 in the structure of the Patent Act, and to restore procedural application of Rule 12(b)(6) in patent matters to the standard used in other areas of civil litigation.

II. STATEMENT OF THE CASE

This case involves two patents claiming improvements to electronic communication and data exchange via computer. eliminating the disadvantages in conventional means of preventing the spread of viruses and malware. The claimed methods develop a substitute electronic file using only conforming data, without performing a conventional scan for virus signatures. Both the district court and the Federal Circuit analogized the claims of the patents-in-suit to claims found patent-ineligible in Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307 (Fed. Cir. 2016), and thus reasoned they were also ineligible.

Glasswall's Amended Complaint alleged the invention claimed in the infringed patents improved the functioning of computers used in electronic communications, by eliminating code that may perform unwanted operations without the need to consult or update virus definition files as used in the code-scanning process conventional at that time. The Federal Circuit concluded these allegations "are not factual in nature, but conclusory legal assertions which the district court was 'not bound to accept as true." See Bell Atl. Corp. v. Twombly, 550 U.S. 544, 555 (2007) (quoting Papasan v. Allain, 478 U.S. 265, 286 (1986))."

A. This Court's opinion in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208 (2014) set forth a two-part test to determine patent eligibility. In the first step the court determines whether the claims (as a whole) "are directed to" a "patent-ineligible concept" such as an abstract idea. *Id.* at 217. If the answer is

yes, the court must then "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." *Id*.

When assessing a patent in the sphere of computer art, the inquiry at step 2 requires a court to determine whether the patent includes an inventive concept, versus whether it "[s]tat[es] an abstract idea while adding the words 'apply it with a computer." *Id.* at 223. The Court's opinion suggests that patent claims that "improve the functioning of the computer itself" are eligible under § 101. *Id.* at 225.

B. The patents-in-suit¹ both stem from a 2006 application and have a common specification. The patents teach and claim a wholly different method of malware protection, a technical solution that avoids the disadvantages inherent in then-existing antivirus programs.

As the specification teaches, then-existing antivirus software programs would typically check for viruses at each time of access to the file. Sellers of then-conventional antivirus programs would monitor virus outbreaks and, when a new virus was spawned, analyze the virus to extract data needed to detect the virus. The sellers would then make these data available to their subscribers. But under the conventional approach, because computer viruses could easily be "mutated" by very minor changes in

¹ The patents-in-suit are U.S. Patent 8,869,283 and 9,516,045, which are both continuations of a common application filed in 2006. Pet. App. 28a.

code, virus definition files (the data needed at the receiving computer to detect viruses) became large and unwieldy. Bloated virus definition files wasted space on a user's computer. Performing a conventional virus scan by checking against it delayed user access to the incoming file. To obtain adequate protection, users needed to regularly update their virus definition file. And because new viruses had to come to the attention of the antivirus company before they could be identified and added to a virus detection update, the then-conventional virus scan always failed to protect some number of computer users. Pet. App. 29a-31a.

The patents-in-suit describe and claim an innovative solution to these technical problems, because they recognize that most data file formats conform to known, rigid standards: real world constraints that facilitate the detection of normal, acceptable, electronic files. By defining, detecting, content that conforms with known file standards and typical user behavior, the claimed invention can detect content known to conform to these rigid standards, then regenerate and deliver to the user a substitute, safe electronic file that contains only conforming data. This improvement to a computer's function makes it unnecessary for a receiving computer to use virus definition files at all. The improvement thus avoids the need for frequent updates of such virus files, and the burden such files impose on the user's computer system. Importantly, the improvement claimed in the patents-in-suit "zero-day protection," meaning improved approach provides immediate protection even against newly-introduced harmful code. This improvement is a remarkable contrast to the

conventional virus-scan approach, because in that prior art solution harmful code must be identified by the seller of the virus-scan software, then added to their virus definition update, then updated by the user before protection is in place, typically days after the virus outbreak. Pet. App. 31a-32a.

1. In November 2016, Glasswall filed suit against Respondent Clearswift, alleging infringement of the '283 patent. Pet. App. 34a. After the '045 patent issued in December 2016, Glasswall filed an Amended Complaint in January 2017 alleging infringement of the '045 patent as well. Pet. App. 34a.

Glasswall's Amended Complaint asserted, among other factual allegations, that the inventions claimed in the patents "improve the functioning of computers . . . by . . . eliminating code or data that may perform unwanted operations on the user's computer without the need to consult or update virus definition files." It alleged the invention applies "technical solutions unique to . . . electronic data transfer to solve technical problems unique to such data transfer . . . such as . . . computer viruses or unauthorized scripting." Pet. App. 32a-33a.

In April 2017, Respondent filed a Motion to Dismiss the Amended Complaint under Fed. R. Civ. Proc. 12(b)(6). The district court entered an order in November 2017 granting Respondent's motion. The court noted the "rule requires the court to assume the truth of the complaint's factual allegations . . .," but added that the "court 'need not accept as true conclusory allegations that are contradicted by documents referred to in the complaint." (quoting

Manzarek v. St. Paul Fire & Marine Ins. Co., 519 F3d. 1025, 1031 (9th Cir. 2008).

The court concluded the claims were directed to a patent-ineligible concept, stating "[w]hile it would be mischaracterizing this claim to state that it is solely directed to e-mail filtering, the Court finds the reasoning in *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307 (Fed. Cir. 2016), to be persuasive." After reciting the different claim at issue in the Intellectual Ventures patent, the court found the '283 patent claim "analogous to content censoring or the redaction of private information from public documents. Without the added references to the specific applications or the context contained in the patent's embodiments, the claim is directed to an abstract concept."

Glasswall appealed, and the Federal Circuit affirmed. Pet. App. 1a-5a. It held "the use of a conventional white-list of approved applicationspecific functions instead of a conventional black-list of virus definitions does not change the nature of the claims." Pet. App. 3a. The Federal Circuit turned to the Intellectual Ventures I case relied on by the district court, noted that claims in that patent were held to be abstract, then held "the claims here do no more." Id. The court dismissed consideration of the Glasswall's assertions of fact as "not factual in nature, but conclusory legal assertions which the district court was 'not bound to accept as true . . .," citing Bell Atl. Corp. v. Twombly, 550 U.S. 544, 555 (2007) (quoting Papasan v. Allain, 478 U.S. 265, 286 (1986)). Pet. App. 5a.

III. REASONS FOR GRANTING THE WRIT

A. The Standard for Determination of "Conclusory Legal Assertions" in the Context of Patent-Eligibility Warrants Review.

1. Pleading Standard.

A pleading must contain a "short and plain statement of the claim showing that the pleader is entitled to relief." Fed. R. Civ. Proc. 8(a)(2). "To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted as true, to 'state a claim to relief that is plausible on its face." Ashcroft v. Iqbal, 556 U.S. 662, 678 (2009) (quoting Bell Atlantic Corp. v. Twombly, 550 U.S. 544, 570 (2007)). In assessing the sufficiency of a pleading, a court will disregard legal conclusions, which are not entitled to the presumption of truth. Id. Instead, the Court must examine the well-pleaded factual allegations and "determine whether they plausibly give rise to an entitlement to relief." Id. at 679.

Ninth Circuit precedent (applied by the Federal Circuit in this matter) provides that when ruling on a motion to dismiss under Rule 12(b)(6), the court must assume the truth of the complaint's factual allegations and credit all reasonable inferences arising from those allegations. *Sanders v. Brown*, 504 F.3d 903, 910 (9th Cir. 2007).

Importantly, "Rule 12(b)(6) does not countenance... dismissals based on a judge's disbelief of a complaint's factual allegations." *Iqbal*, 556 U.S. at 696 (Souter, J., dissenting), citing *Neitzke*

v. Williams, 490 U.S. 319, 327 (1989). In the context of facts pleaded in a complaint for patent infringement, the Federal Circuit's Berkheimer opinion holds "[t]he question of whether a claim element or combination of elements is wellunderstood, routine and conventional to a skilled artisan in the relevant field is a question of fact." Berkheimer v. HP Inc., 881 F.3d 1360, 1368 (Fed. Cir. 2018), petition for cert. filed 2018 U.S. S. Ct. Briefs LEXIS 3613 (U.S. Sept. 28, 2018) (No. 18-415). On a motion to dismiss, this question of whether an operation is conventional must, like every question of fact, be resolved in the plaintiff's favor. Aatrix Software, Inc. v. Green Shades Software, Inc., 882 F.3d 1121, 1128 (Fed. Cir. 2018).

"Berkheimer and Aatrix stand for unremarkable proposition that whether a claim element or combination of elements would have been well-understood, routine, and conventional to a skilled artisan in the relevant field at a particular point in time is a question of fact." Berkheimer II, 890 F.3d at 1370 (concurring in denial of rehearing en banc). For this reason, if patent eligibility is challenged in a motion to dismiss for failure to state a claim pursuant to Rule 12(b)(6), the court must apply "the well-settled Rule 12(b)(6) standard which is consistently applied in every area of law. A motion to dismiss for failure to state a claim must be denied if 'in the light most favorable to the plaintiff and with every doubt resolved in the pleader's favor—but conclusory disregarding mere statements—the complaint states any legally cognizable claim for relief." Id.

But what constitutes "mere conclusory statements" a court may disregard? How can a court accept all pleaded facts as true and resolve every doubt in the pleader's favor, while simultaneously determining that some statements the pleader makes are of no moment and need not be considered?

Igbal reaffirmed that a "pleading that offers 'labels and conclusions' or 'a formulaic recitation of the elements of a cause of action will not do " Igbal, 556 U.S. at 678, citing Twombly, 550 U.S. at 555. But neither Twombly nor Iqbal offer an analytic means to distinguish between "fact" and "conclusion." In practice, it is nearly impossible to objectively divine the difference between a pleaded allegation of fact and a conclusory legal assertion. See Donald J. Kochan, While Effusive, "Conclusory" Is Still Quite Elusive: The Story of a Word, Igbal, and a Perplexing Lexical Inquiry of Supreme Importance, 73 U. Pitt. L. Rev. 215; Scott Dodson, New Pleading, New Discovery, 109 Mich. L. Rev. 53, 57 (2010); see generally Twombly, 550 U.S. at 589-90 (Stevens, J., dissenting) ("The Court's dichotomy between factual allegations and 'legal conclusions' is the stuff of a bygone era. That distinction was a defining feature of code pleading, but was conspicuously abolished when the Federal Rules were enacted in 1938.").

Must a complaint drafter explain why a statement is true? Does that explanation convert a statement from a conclusory legal assertion to an allegation of fact? In *Papasan* (quoted in both *Twombly* and *Iqbal*), this Court took issue with the plaintiffs' assertion that they "had been denied their right to a minimally adequate education." The petitioners did not allege that schoolchildren are not

taught to read and write, or that they did not receive instruction on educational basics. This absence of explanation why the plaintiffs had been denied a minimally adequate education doomed the cause of action. "As we see it, we are not bound to credit and may disregard the allegation that the petitioners have been denied a minimally adequate education." *Papasan*, 478 U.S. at 286.

2. The Court's Intervention is Necessary to Restore Proper Analysis Under Rule 12(b)(6) to Patent Eligibility Determinations.

Unless corrected, inconsistences and confusion will undermine any certainty, uniformity, or accuracy intended by the standards for sufficiency of pleading this Court articulated in *Iqbal* and *Twombly*.

And this inconsistency contributes mightily to the disarray in the law regarding patent-eligibility under 35 U.S.C. § 101. In considering whether patent claims meet the requirements of Section 101, a court's ability to deem certain pleaded facts "conclusory legal assertions" (and thereby disregard them) introduces a wholly subjective standard that bypasses Twombly and Igbal requirement to evaluate the plausibility of relief sought in an infringement complaint by taking all pleaded fact allegations as true. Without an objective means of separating fact from conclusion there is no workable standard for courts to assess the viability of pleadings on a motion to dismiss. See Kochan, supra at 237-38 (pointing out the possible arbitrary implementation of the standard and noting that in *Iqbal*, the issue of whether certain

allegations were conclusory was the main point of contention between the majority and dissent).

Before the Federal Circuit decisions in Berkheimer and Aatrix Software, Inc., some of its dispositions treated questions of patent eligibility raised by a Rule 12(b)(6) motion as purely legal issues that did not implicate at all the requirements of Iqbal and Twombly. See e.g., Intellectual Ventures I LLC v. Erie Indem. Co., 850 F.3d 1315, 1325 (Fed. Cir. 2017) (no reference to pleaded facts in evaluating two-step Alice inquiry).

The *Berkheimer* and *Aatrix* decisions signal a course correction by the Federal Circuit, recognizing that patent-eligibility requires evaluation of "whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field;" and that this evaluation is a "question of fact." *Berkheimer*, 881 F.3d at 1368.

Nevertheless, some Federal Circuit opinions after the Berkheimer and Aatrix decisions, including this case, continue to bypass proper analysis of fact questions under the Rule 12(b)(6) standard. Multiple decided by the Federal Circuit, involve Berkheimer, determinations of patent ineligibility at the motion to dismiss stage. Various Federal Circuit panels continue to affirm a district court finding of patent ineligibility with little or no evaluation of, much less deferral to, a complaint's pleaded facts. Instead, the court will launch into analysis of claim language and comparisons to claims (in different patents) that were determined (in different cases) to be eligible or ineligible.

Most recently, in Cleveland Clinic Foundation v. True Health Diagnostics LLC, No. 2018-1218, 2019 U.S. App. LEXIS 9451 (Fed. Cir. Apr. 1, 2019, unpublished), the court acknowledged the patent holder's argument that, because the district court improperly resolved factual disputes against it at the pleadings stage, the case required remand. But the court held "[i]n view of our conclusion that the specification and prosecution history are clear that the claimed method uses a known technique in a standard way to observe a natural law, we decline to do so . . .," relying on Secured Mail Solutions LLC v. Universal Wilde, Inc., 873 F.3d 905, 913 (Fed. Cir. 2017) (court "need not 'accept as true allegations that contradict matters properly subject to judicial notice").

The patent holder in Athena Diagnostics, Inc. v. Mayo Collaborative Services, LLC, 915 F.3d 743 (Fed. Cir. 2019) argued that its expert's declaration presented factual disputes precluding dismissal under Rule 12(b)(6). However, the Federal Circuit determined the expert declaration made these fact allegations inconsistent with the '820 patent and, concluding "the district court was not obliged to accept them as true," held the patent ineligible, dismissing the complaint. Id. at 756.

The Federal Circuit failed to accept well pleaded facts as true and draw all inferences in favor of the non-moving party in *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335 (Fed. Cir. 2018). Instead, the court again turned to a comparison with patent claims already held ineligible in *Intellectual Ventures I LLC* and *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2013).

But in other cases, the Federal Circuit has come down on the opposite side of the divide, finding, for example, that the saving-grace of other patent claims was a focus "on an improvement to computer functionality." See Enfish, LLC v. Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016); Finjan, Inc. v. Blue Coat Sys., Inc., 879 F.3d 1299, 1305 (Fed. Cir. 2018) ("a new kind of file that enables a computer security system to do things it could not do before"); cf. Alice, 573 U.S. at 210 (patent claims held abstract "[did] not, for example, purport to improve the functioning of the computer itself....")

Nowhere is failure to adhere to the Rule 12(b)(6) standard more apparent than in the case at hand. Rather than examine the pleaded facts in the light most favorable to the Plaintiffs, the Federal Circuit labeled factual allegations as "conclusory legal that the district assertions" court properly disregarded. Pet. App. 5a. Indeed, rather than begin its analysis with de novo review of factual assertions and application of the Rule 12(b)(6) standard, the court started by agreeing with the district court's characterization that all the claims were "directed to 'the filtering of electronic files and data," before turning to claims held ineligible in Intellectual Ventures I LLC, 838 F.3d at 1311. Intellectual Ventures I, the claims here deliver the allowable content and inhibit the communication of other content. The claims merely require the conventional manipulation of information by a computer." Pet. App. 4a. Despite pleaded fact allegations of improved computer function by eliminating the need to perform code-matching virus scan, the court invalidated the claims, with no analysis of whether the claims would be understood

by a skilled artisan at the time of the invention to improve a computer's function by avoiding the disadvantages of then-conventional code-matching scans described in the specification Pet. App. 31a-33a.

As discussed in section 1 above, this Court's *Papasan* decision suggests a complaint does not incorporate a "mere conclusory allegation" if it explains why a pleaded fact is so, and in this case, Glasswall did explain the "why." The Amended Complaint alleged improvement in computer function: an invention eligible for patent protection because it eliminated unwanted code without the need to consult or update virus definition files, a disadvantage in the prior art. Pet. App. 32a-33a. And the complaint attached and referred to the patents themselves. The patent specification emphasized the value of this new approach in contrast to the thenconventional virus scan technique. Pet. App. 31a-33a.

Because of the inconsistency in Federal Circuit determinations, and the confusion between factual assertions and conclusory allegations under the *Iqbal* and *Twombly* standard, it is now impossible to determine whether and under what circumstances a court will consider pleaded facts, or summarily disregard them as conclusory. The Federal Circuit's Section 101 jurisprudence has departed from the well-established principle that the standards for review of a motion under Rule 12(b)(6) apply to all such motions, in every aspect of civil litigation, including patent infringement litigation. This case illustrates the need for clarity in the fact-versus-conclusion dichotomy, to end its arbitrary application. Certiorari is warranted on Petitioner's first question.

B. Whether Disputed Fact Issues Underlying Patent-Eligibility Determinations Can Be Resolved by Motion to Dismiss Warrants Review.

As discussed in the foregoing part A, Section 101 jurisprudence developed by the Federal Circuit in the wake of *Alice* recognizes that "whether a claim recites patent-eligible subject matter is a question of law which may contain underlying facts...." *Berkheimer*, 881 F.3d at 1368. Because a finding that patent claims are directed to ineligible subject matter invalidates the claims, the *Berkheimer* decision emphasizes that questions of fact pertinent to patent invalidity "must be proven by clear and convincing evidence . . ." *Id.* at 1358; *see also Aatrix*, 882 F.3d at 1128.

1. Invalidating Patent Claims by Rule 12(b)(6) Motion Creates Significant Tension with the Statutory Presumption of Validity

The Patent Act, recognizing that technical experts at the U.S. Patent and Trademark Office ("PTO") are tasked with thorough examination of patent claims prior to their issuance, includes a presumption that issued claims are valid. 35 U.S.C. § 282 provides:

A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid 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 such invalidity.

This Court's decision in *Microsoft Corp. v. i4i* Ltd. Partnership, 564 U.S. 91, 95 (2011), confirmed this statutory presumption requires a patent challenger to prove invalidity by clear and convincing evidence. This Court recognized that the standard of proof does not vary when the evidence presented to the fact-finder is different from that presented to the PTO: "this Court often applied the heightened standard of proof without any mention of whether the relevant prior-art evidence had been before the PTO examiner Nothing in § 282's text suggests that Congress meant to depart from that understanding to enact a standard of proof that would rise and fall with the facts of each case." Id. at 109.

This Court's *Alice* opinion, however, did not address the standard of proof applicable to analysis of patent eligibility. The Federal Circuit's *en banc* analysis in *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269 (Fed. Cir. 2013) endorsed, in the majority opinion, the view that the presumption of validity applies to a patent-eligibility inquiry, *id.* at 1284, "it bears remembering that all issued patent claims receive a statutory presumption of validity, 35 U.S.C. § 282." *See also id.* at 1304-05: "any attack on an issued patent based on a challenge to the eligibility of the subject matter must be proven by clear and convincing evidence" (concurrence by Judges Lourie, Dyk, Prost, Reyna, and Wallach.)

Shortly after that *en banc* decision, the Federal Circuit observed that it was "rare that a patent infringement suit can be dismissed at the pleading stage for lack of patentable subject matter . . . because every issued patent is presumed to have been issued properly, absent clear and convincing evidence to the contrary." *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1338 (Fed. Cir. 2013), cert. granted, judgment vacated and case remanded sub nom. *WildTangent, Inc. v. Ultramercial, LLC*, 573 U.S. 942 (2014), for further consideration in light of this Court's decision in *Alice*.

But as shown in the following subsections, the Federal Circuit's approach in this case ignored the presumption of validity afforded to Petitioner's patents by statute.

2. The Federal Circuit in This Case Concluded the Claimed Methods Were Conventional Without Reference to Any Evidence

In this the Federal Circuit case. mischaracterized the claims at issue, holding "the use of a conventional white-list of approved applicationspecific functions instead of a conventional black-list of virus definitions does not change the nature of the claims." Pet App. 3a. But nowhere in the pleadings or the patent specification did Glasswall acknowledge that its claimed solution to the disadvantages inherent in a conventional virus-scan employ a "conventional white-list." On the contrary, the patent specification asserted the invention operated in a fundamentally different manner to known anti-virus programs, eliminating the need to store virus

definition files and scan incoming documents to look for viruses defined in them. Pet. App. 51a. And the Amended Complaint alleged the claimed invention improved the functioning of computers by eliminating unwanted code "without the need to consult or update virus definition files." Pet. App. 32a-33a.

Accordingly, this Court's review is warranted as to the second question presented in this Petition, which asks whether a District Court's determination that a patent claim is directed to an abstract concept, or does not contain an innovative concept previously unknown in the art, requires resolution of underlying fact questions that cannot be resolved by a motion under Rule 12(b)(6). Patent eligibility issues are more and more frequently disposed of on a motion to dismiss an infringement claim, but this all too often puts the fate of a patent owner's valuable property rights at risk determination by comparison to other claims in different patents, rather than by the claims' "ordinary and customary meaning" to a person of ordinary skill in the art in question at the time of the invention. Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005).

3. There is a Division Among Federal Circuit Panels As to Whether Patent-Eligibility Determinations with Underlying Disputed Fact Questions Can Be Resolved On a Motion to Dismiss

It is abundantly clear, from review of the recent Federal Circuit opinions denying rehearing en banc in Aatrix II and Berkheimer II that the members of the Federal Circuit are widely divided on the fundamental question of whether patent eligibility under Section 101 is purely a question of law that should be decided on a motion to dismiss, even where there is a disputed underlying fact question.

This Court's *Alice* opinion provides, at step two of the analysis, if a patent claim is directed to an abstract idea, the court must inquire whether the patent involves something more than "well-understood, routine, conventional activit[ies] previously known to the industry." *Alice*, 573 U.S. at 225 (quoting *Mayo Collaborative Servs. v. Prometheus Labs.*, *Inc.*, 566 U.S. 66, 79 (2012)).

Questions of this kind necessarily require an understanding of the state-of-the-art in a particular industry at a particular point in time. They are clearly questions of fact. As discussed in the foregoing subsection 1, an issued patent is, by statute, clothed with the presumption of validity pursuant to 35 U.S.C. § 282. An accused infringer challenging validity must overcome that presumption by clear and convincing evidence, and this evidence necessarily involves questions of fact. Berkheimer, 881 F.3d at 1358. This should be an "unremarkable proposition," Berkheimer II, 890 F.3d at 1369, but instead Federal Circuit panels continue to make determinations of conventionality without citing any supporting evidence, as was done in this case.

But although Section 101 issues often present factual questions of this kind, many prior Federal Circuit decisions have held that patent eligibility is purely a question of law. *E.g. Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338

(Fed. Cir. 2017); OIP Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1362 (Fed. Cir. 2015).

These decisions and others like them conflict with *Berkheimer*: "what is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination," 881 F.3d at 1365; see also Exergen Corp. v. Kaz USA, Inc., 725 Fed. App'x. 959, 967 (Fed. Cir. 2018).

But again, the decisions denying rehearing en banc in Aatrix II and Berkheimer II show the Federal Circuit to be a deeply divided court unlikely to be able to resolve disagreements among its members. See, e. g. Judge Reyna's opinion dissenting from denial in Berkheimer II, insisting that the single most consistent factor in the Federal Circuit's approach to Section 101 has been its "precedent that the § 101 inquiry is a question of law," 890 F.3d at 1380, such that "[t]he consequences of this decision staggering and wholly unmoored from our precedent." At the same time five of his colleagues disagreed with him, explaining that the court "cannot adopt a resultoriented approach to end patent litigation at the Rule 12(b)(6) stage that would fail to accept as true the complaint's factual allegations and construe them in the light most favorable to the plaintiff, as settled law requires." Id. at 1373 (Moore, J., concurring in the denial of the petition for rehearing en banc).

The Federal Circuit is not "free to create specialized rules for patent law that contradict well-established, general legal principles" *Id.* at 1371 (Moore, J., concurring in the denial of the petition for rehearing en banc). The divide among members of the Federal Circuit underscores another element of the

current disarray in the state of Section 101 jurisprudence. All too often, the fate of a patent owner's valuable property right is left to the chance determination of which panel of judges hears the decision.

This Court's intervention is needed to restore predictability and consistency to this fundamental application of the law. Petitioner respectfully urges the Court to grant certiorari.

May 17, 2019 Respectfully submitted,

By: /s/ Robert J. Carlson

Robert J. Carlson Counsel of Record Lee & Hayes, PLLC 701 Pike Street, Ste. 1600 Seattle, WA 98101 T: 206-876-6029 F: 509-323-8979 carlson@leehayes.com

Peter J. Ayers Law Office of Peter J. Ayers, PLLC 220 Bowman Ave. Austin, TX 78703 T: 512-771-3070 F: 512-520-4459 peter@ayersiplaw.com

Attorneys for Applicants Glasswall Solutions Limited, Glasswall (IP) Limited



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[ENTERED: December 20, 2018]

NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

GLASSWALL SOLUTIONS LIMITED, GLASSWALL (IP) LIMITED,

Plaintiffs-Appellants

 $\mathbf{v}.$

CLEARSWIFT LTD.,

Defendant-Appellee

2018-1407

Appeal from the United States District Court for the Western District of Washington in No. 2:16-cv-01833-RAJ, Judge Richard A. Jones.

Decided: December 20, 2018

ROBERT J. CARLSON, Lee & Hayes PLLC, Seattle, WA, argued for plaintiffs-appellants.

RAMSEY M. AL-SALAM, Perkins Coie, LLP, Seattle, WA, argued for defendant-appellee. Also represented by LANE M. POLOZOLA.

Before LOURIE, LINN, and TARANTO, Circuit Judges.

LINN, Circuit Judge.

Glasswall Solutions Limited ("Glasswall") appeals from the dismissal of its patent infringement suit against Clearswift Ltd. under Fed. R. Civ. P. 12(b)(6) for failure to state a claim. Because the district court did not err in concluding that all asserted claims of Glasswall's U.S. Patent Nos. 8,869,283 and 9,516,045 are invalid as patent ineligible abstract ideas under 35 U.S.C. § 101, we affirm.

Applying Step 1 of *Alice*, the district court characterized the claims as directed to "the filtering of electronic files and data" by regenerating an electronic file without non-conforming Glasswall Solutions Ltd. v. Clearswift Ltd., No. 2:16cv-01833, 2017 WL 5882415, at *4 (W.D. Wash. Nov. 29, 2017); see Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208, 218 (2014). We agree with the district court's characterization of what the claims are directed to and its conclusion that such filtering is abstract. The claims at issue in both patents do not purport to claim how the invention receives an electronic file, how it determines the file type, how it determines allowable content, how it extracts all the allowable data, how it creates a substitute file, how it parses the content according to predetermined rules into allowable and nonconforming data, or how it determines authorization to receive the nonconforming data. See '283 patent, claim 1; '045 patent, claim 1. Instead, the claims are framed in wholly functional terms, with no indication that any of these steps are implemented in anything but a conventional way.

The use of a conventional white-list of approved application-specific functions instead of a conventional black-list of virus definitions does not change the nature of the claims.

The claims here are similar to claims found patent ineligible in Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307 (Fed. Cir. 2016). The method claims in *Intellectual Ventures I* called for receiving data, determining whether the received data matched certain characteristics, and outputting data based on the determining step. Id. at 1313. We held that the claims were "directed to methods of screening emails and other data files for unwanted content." Id. at 1311. We concluded that this was an abstract idea because filtering mail (and likewise filtering e-mail) according to known characteristics was a "long-prevalent practice." Id. at 1314. Other claims included "inhibiting communication of at least a portion of the computer data from the telephone network" and "determining that virus screening is to be applied" based on the parties involved. *Id.* at 1319. We held that these claims were also abstract.

The claims here do no more. Rather, the claims simply require "generic computer-implemented steps." *Id.* at 1318. Claim 1 of the '283 patent requires comparing the file's content to a set of rules, extracting conforming data, and then duplicating the conforming data (thus creating a substitute file). These are all generic computer functions. *E.g.* '283 patent, col. 8, ll. 11-13 ("In this embodiment, the [antivirus] application 105 is a piece of computer code, which is implemented using known computer programming technique."). Claim 1 of the '045 patent requires essentially the same steps, but calls for

"parsing the content data in accordance with a predetermined data format" and determining nonconforming data. These steps are directly parallel to those in *Intellectual Ventures I*. Like in *Intellectual* Ventures I, the claims here deliver the allowable content and inhibit the communication of other content. The claims merely require the conventional manipulation of information by a computer. We have often held similar conventional data manipulation to be abstract. See Smart Sys. Innovations, LLC v. Chicago Transit Auth., 873 F.3d 1364, 1372 (Fed. Cir. 2017); Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350, 1353 (Fed. Cir. 2016); Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n., 776 F.3d 1343, 1347 (Fed. Cir. 2014). The patents themselves indicate that the embodiment covering e-mail scanning is "implemented using known computer programming techniques." '283 patent, col. 8, ll. 12–14; '045 patent, col. 8, ll. 32–34. That the filtration here occurs by filtering in the allowable content rather than filtering out the non-allowable content as in *Intellectual Ventures I* does not make the claimed method any less abstract.

The claims here are unlike those found patent eligible in Finjan, Inc. v. Blue Coat Sys., Inc., 879 F.3d 1299 (Fed. Cir. 2018). In Finjan, the claimed invention employed "a new kind of file that enables a computer security system to do things it could not do before." Id. at 1305. We explained that the claims there, like those in Enfish, LLC v. Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016), were directed to a "non-abstract improvement in computer functionality, rather than the abstract idea of computer security writ large." Finjan, 879 F.3d at 1305; Enfish, 822 F.3d at 1336. Unlike in Finjan, the claims here do not

filter based on *behavior*, but based on the allowable form of information within a file, e.g., content other than I-frames in HTML or complex macros in Microsoft Word. Moreover, the claims do not create a new kind of file or improve the functioning of the computer itself. The "substitute" file merely duplicates the approved content from the original electronic file. It does not allow the computer to do something it could not previously do.

The claims fare no better under *Alice* Step 2, as they recite steps that do not amount to anything more than an instruction to apply the abstract idea of filtering nonconforming data and regenerating a file without it, plus the generic steps needed to implement the idea.

Finally, we find no error in the district court's resolution of the patent ineligibility of the claims on a Rule 12(b)(6) motion. We have approved dismissal under § 101 on the pleadings in certain circumstances. See Content Extraction, 776 F.3d at 1349. Glasswall cannot render its complaint immune from dismissal by merely asserting that its methods are "novel" and technology "improve the used in electronic communications." Dr. Leopold's declaration of the alleged advantages in the claimed invention also does not preclude dismissal on the pleadings. The alleged "factual" assertions that Glasswall points to as creating genuine issues of material fact are not factual in nature, but conclusory legal assertions which the district court was "not bound to accept as true." See Bell Atl. Corp. v. Twombly, 550 U.S. 544, 555 (2007) (quoting Papasan v. Allain, 478 U.S. 265, 286 (1986)).

AFFIRMED

[ENTERED: November 29, 2017]

HONORABLE RICHARD A. JONES

UNITED STATES DISTRICT COURT WESTERN DISTRICT OF WASHINGTON AT SEATTLE

| GLASSWALL SOLUTIONS LIMITED, and GLASSWALL (IP) LIMITED, Plaintiffs, | CASE NO. C16-1833 RAJ |
|---|---------------------------------------|
| v. | ORDER |
| CLEARSWIFT LTD., | |
| Defendant. | _ |

I. INTRODUCTION

This matter comes before the Court on Defendant Clearswift, Ltd.'s ("Clearswift") Motion to Dismiss. Dkt. # 8. Plaintiffs Glasswall Solutions Limited and Glasswall (IP) Limited (collectively, "Glasswall") oppose the Motion¹. Dkt. # 12. For the reasons set forth below, the Court **GRANTS** Defendant's Motion to Dismiss. Dkt. # 8.

¹ Plaintiffs submit two declarations in support to their opposition to Defendant's Motion. Dkt. ## 13, 14. When resolving a motion to dismiss under Rule 12(b)(6), the Court may rely on a document to which the complaint refers if the document is central to the party's claims and its authenticity is not in question. *Marder v. Lopez*, 450 F.3d 445, 448 (9th Cir. 2006). These declarations are not central to Plaintiffs' claims and will not be considered for the purposes of this Motion.

II. BACKGROUND

Glasswall asserts two patents in this lawsuit: U.S. Patent Nos. 8,869,283 ("283 patent") and 9,516,045 ("045 patent"). Both are entitled "Resisting the Spread of Unwanted Code and Data" and relate to virus-protection software. The '283 patent and the '045 patent purport to improve upon prior art by providing "an entirely different approach protection against unwanted code." Unwanted code and data can include computer viruses, spyware, malware, etc. Both patents teach methods or systems of receiving an electronic file, determining the data format, parsing the content data to determine whether it conforms to the predetermined data format, and if so, regenerating the parsed data to create a regenerated electronic file. '283 patent, Abstract; '045 patent, Abstract. Both patents have essentially identical specifications. Dkt. # 12 at 9.

Independent Claim 1 of the '283 patent claims:

A method for processing an electronic file to create a substitute electronic file containing only allowable content data, the method comprising:

receiving an electronic file containing content data encoded and arranged in accordance with a predetermined file type;

determining a purported predetermined file type of the received electronic file and an associated set of rules specifying values or range of values of allowable content data;

determining at least an allowable portion of the content data that conforms with the values or range of values specified in the set of rules corresponding to the determined purported predetermined file type;

extracting, from the electronic file, only the at least an allowable portion of content data;

creating a substitute electronic file in the purported file type, said substitute electronic file containing only the extracted allowable content data;

forwarding the substitute regenerated electronic file only if all of the content data from within the electronic file conforms to the values or range of values specified in the set of rules; and

forwarding the incoming electronic file if a portion, part or whole of the content data does not conform only when the intended recipient of the electronic file has pre-approved the predetermined file type when associated with the sender of electronic file.

Dependent Claims 2-6 impose further specific limitations on the determination of known, acceptable

file content. Claim 7 imposes the scrambled format file isolation limitation, while Claim 8 provides that the scrambling be in "bit reversed order." Independent Claims 15-17 and 19-23 claim as either a method, computer readable medium product that can execute the method steps, or a device with computer components that can execute the method steps.

The claims in the '045 patent are similarly directed to eliminating unwanted code. Independent Claim 1 of the '045 patent claims:

A method for resisting spread of unwanted code and data without scanning incoming electronic files for unwanted code and data, the method comprising the steps, performed by a computer system of:

- (a) receiving, at the computer system, an incoming electronic file containing content data in a predetermined file type corresponding to a set of rules;
- (b) determining a purported predetermined file type of the incoming electronic file;
- (c) parsing the content data in accordance with a predetermined data format comprising a set of rules corresponding to the determined purported predetermined file type;

- (d) determining nonconforming data in the content data that does not conform to the predetermined data format;
- (e) determining that the nonconforming data is authorized; and
- (f) regenerating the nonconforming data to create a substitute regenerated electronic file in the purported file type, said substitute regenerated electronic file containing the regenerated content data, if the nonconforming data is determined to be authorized.

The '045 patent also has several independent claims that cover "devices," "systems," and "computer-readable medium" that can execute or contain the same method steps, and dependent claims that add parameters to the method, and add further limitations on the independent claims. Clearswift's Motion addresses independent claim 1 of the '283 patent and independent claim 1 of the '045 patent as representative claims of the other claims in the patents².

² Glasswall appears to object to Clearswift's treatment of independent claim 1 of the '283 patent and independent claim 1 of the '045 patent as representative claims. Dkt. # 12 at 10. However, Clearswift makes no argument as to why these claims are not representative and does not assert why the Court should differentiate any claim from those identified as representative by Glasswall. Glasswall does not identify any other claims as purportedly containing an inventive concept. As such, the Court will consider independent claim 1 of the '283 patent and independent claim 1 of the '045 patent as representative claims for the purposes of this Motion.

III. LEGAL STANDARD

A. FRCP 12(b)(6)

Fed. R. Civ. P. 12(b)(6) permits a court to dismiss a complaint for failure to state a claim. The rule requires the court to assume the truth of the complaint's factual allegations and credit all reasonable inferences arising from those allegations. Sanders v. Brown, 504 F.3d 903, 910 (9th Cir. 2007). A court "need not accept as true conclusory allegations that are contradicted by documents referred to in the complaint." Manzarek v. St. Paul Fire & Marine Ins. Co., 519 F.3d 1025, 1031 (9th Cir. 2008). The plaintiff must point to factual allegations that "state a claim to relief that is plausible on its face." Bell Atl. Corp. v. Twombly, 550 U.S. 544, 568 (2007). If the plaintiff succeeds, the complaint avoids dismissal if there is "any set of facts consistent with the allegations in the complaint" that would entitle the plaintiff to relief. Id. at 563; Ashcroft v. Igbal, 556 U.S. 662, 679 (2009).

A court typically cannot consider evidence beyond the four corners of the complaint, although it may rely on a document to which the complaint refers if the document is central to the party's claims and its authenticity is not in question. *Marder v. Lopez*, 450 F.3d 445, 448 (9th Cir. 2006). A court may also consider evidence subject to judicial notice. *United States v. Ritchie*, 342 F.3d 903, 908 (9th Cir. 2003).

IV. DISCUSSION

A. Patent-Ineligibility

Clearswift argues that Glasswall fails to state a claim under Rule 12(b)(6) because the patents it asserts claim patent-ineligible concepts. preliminary matter, Glasswall argues that determination of patent eligibility prior to discovery or claim construction is premature. While it is often necessary to resolve claim construction disputes prior to a § 101 analysis in order to gain a full understanding of the claimed subject matter, "claim construction is not an inviolable prerequisite to a validity determination under § 101." Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.), 687 F.3d 1266, 1273 (Fed. Cir. 2012). The "words of a claim are generally given their ordinary and customary meaning." Phillips v. AWH Corp., 415 F.3d 1303, 1312–13 (Fed.Cir. 2005). Where, as here, the basic character of the claims can be understood on their face for the purposes of the § 101 analysis, patentability can be examined at the pleading stage. Bancorp, 687 F.3d at 1274; Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343, 1349 (Fed. Cir. 2014); see also Intellectual Ventures I LLC v. Erie Indem. Co., No. 2017-1147, 2017 WL 5041460 (Fed. Cir. Nov. 3, 2017).

Section 101 of the Patent Act provides that "[w]hoever invents or discovers a 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. However, "[l]aws of nature, natural phenomena, and

abstract ideas are not patentable." Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2116 (2013).

The Supreme Court has established a "two-step analytical framework to identify patents that, in essence, claim nothing more than abstract ideas. Alice Corp. v. CLS Bank Int'l, 134 S. Ct. 2347, 2355 (2014). The first step is to determine whether the claim is directed to a patent-ineligible concept, such as an abstract idea. Id. To distinguish claims that are directed to abstract ideas from those that merely involve abstract ideas, courts look to "the 'focus' of the claims" and "their 'character as a whole." Elec. Power Grp., LLC v. Alstom, S.A., 830 F.3d 1350, 1353 (Fed. Cir. 2016). If the claim is directed to a patentineligible concept, the court examines the claim limitations to determine whether they furnish an "inventive concept" that transforms the abstract idea into a patent-eligible application of that idea. Alice, 134 S. Ct. at 2355. The second step of this framework is a "search for . . . 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*.

B. Failure to State a Claim

a. Patent-Ineligible Concept

Claim 1 of patent '283 claims a method of receiving an electronic file, determining whether that file contains content data that conforms to a predetermined file type, forwarding the file even if it contains nonconforming data if the sender is preapproved, or if the sender is not pre-approved,

extracting the conforming content, creating a substitute electronic file containing only the extracted conforming content, and forwarding the substitute electronic file. While it would be mischaracterizing this claim to state that it is solely directed to email filtering, the Court finds the reasoning in *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307 (Fed. Cir. 2016), to be persuasive. In *Intellectual Ventures*, the patent at issue was directed to filtering emails with unwanted content. The representative claim analyzed recites:

A method for identifying characteristics of data files, comprising:

receiving, on a processing system, file content identifier for data files from a plurality of file content identifier generator agents, each agent provided on a source system and creating file content IDs using a mathematical algorithm, via network;

determining, on the processing system, whether each received content identifier matches a characteristic of other identifiers; and

outputting, to at least one of the source systems responsive to a request from said source system, an indication of the characteristic of the data file based on said step of determining.

The Federal Circuit found that receiving email and other data file identifiers, characterizing the file based on the identifiers, and communicating that characterization was similar in concept to "people receiving paper mail . . . look[ing] at an envelope and discard[ing] certain letters, without opening them, from sources from which they did not wish to receive mail based on characteristics of the mail," a "fundamental, longprevalent" practice which constitutes an abstract idea. Intellectual Ventures I LLC, 838 F.3d at 1314. The Federal Circuit also analogized this claim to other cases in which claims directed to filtering content based on a known list of identifiers were found to be abstract ideas, including the claim in Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343 (Fed. Cir. 2014), which involved "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory." *Id.* at 1347.

Here, the claim language is similarly directed toward the filtering of electronic files and data. The file is analyzed to see if it conforms to certain parameters, and if data is found that does not conform, it is extracted and the file is regenerated without it. This is analogous to content censoring or the redaction of private information from public documents. Without the added references to the specific applications or the context contained in the patent's embodiments, the claim is directed to an Claim 1 of patent '045 repeats abstract concept. essentially the same method steps of claim 1 of patent '283, but specifies the use of a computer system, and states that the method is "for resisting spread of unwanted code and data without scanning incoming electronic files for unwanted code and data." This slightly altered language does not sufficiently limit or

change the method in patent '283 such that the Court would conclude that patent '045 is directed toward a patent-eligible concept.

makes Glasswall several arguments response to Clearswift's contention that these claims are directed to an abstract idea. Glasswall relies on specific embodiments of the claimed inventions to make its argument regarding the "essential character of the subject matter claimed," stating that the claims "focus on a specific method for improving the relevant malware elimination technology." Dkt. # 12 at 9, 11, 20. This claimed improvement in computer function is not evident by the wording of the claims in the patents. "The important inquiry for a § 101 analysis is to look to the claim." Accenture Glob. Servs., GmbH v. Guidewire Software, Inc., 728 F.3d 1336, 1345 (Fed. Cir. 2013); Intellectual Ventures I LLC, 838 F.3d at 1322 (Fed. Cir. 2016) (finding that the district court erred relying on technological details set forth in the patent's specification and not set forth in the claims to find an inventive concept). The language of the asserted claims refer to an "allowable portion of the content data" based on "values or range of values specified in the set of rules", but provide no other details regarding what that allowable portion is, or how it would be determined. Nor do the claims indicate how these filtering mechanisms create an improvement in malware technology. Even with the addition of the information in the specifications of the patents, these claims are not directed to the type of improvement in computer function contemplated by the Federal Circuit in cases such as Enfish v. Microsoft Corp., 822 F.3d 1327, 1339 (Fed. Cir. 2016). In *Enfish*, the patents were specifically directed to a self-referential table for a computer database rather

than simply focusing on the individual functions performed by that self-referential table, i.e. storing, organizing, and retrieving memory in a logical table. The claims in the '283 and '045 patents contain no such limiting or specific language.

Glasswall also argues that the actions of the U.S. Patent and Trademark Office ("USPTO") support its contention that the patents claim patent eligible concepts. However, the administrative processes of the USPTO are not precedential authority for this Court and the example Glasswall points to as "closely analogous" to the character of the claims in patents '283 and '045 is not persuasive. First, as conceded by Glasswall, while both the example claim in the USPTO guidelines and the representative claims in the patents at issue are directed to eliminating certain types of code, patents '283 and '045 aim to meet this goal in a "fundamentally different manner." Dkt. # 12 at 19. The example is far more specific and has a narrower scope than the claims at issue. The example claim has specific scanning steps, such as scanning for "an identified beginning malicious code marker," or "flagging each scanned byte between the beginning marker and a successive end malicious code marker," as opposed to the broadly worded "determining a purported predetermined file type . . . and an associated set of rules specifying values or range of values of allowable content data" in the claim in patent '283. Second, the USPTO guidelines language states that the concept of the invention claimed by the sample claim is "distinct from the types of concepts found by the courts to be abstract." These guidelines were issued prior to several decisions further interpreting the idea of abstract ideas in relation to computer technology, i.e.

Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1313 (Fed. Cir. 2016), and are not indicative of current precedent.

Glasswall's reasoning that the patents at issue were not rejected by a patent examiner as directed to an abstract idea is similarly unpersuasive. As noted by Clearswift, all patents must be approved by an examiner at the USPTO in order to become a patent. The fact that these patents were not rejected by an examiner is not enough to support its argument that the patents are directed to a patent-eligible concept.

b. Inventive Concept

"Claims that 'amount to nothing significantly more than an instruction to apply [an] abstract idea ... using some unspecified, generic computer' and in which 'each step does no more than require a generic computer to perform generic computer functions' do not make an abstract idea patent-eligible." Intellectual Ventures ILLC, 838 F.3d at 1315 (quoting Alice, 134 S.Ct. at 2359–60). Further, claiming the improved speed or efficiency inherent with applying the abstract idea on a computer does not provide a sufficient inventive concept." Intellectual Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1367 (Fed. Cir. 2015).

Glasswall's patents fail step two of the analytical framework set out in *Alice* because the claim limitations are not sufficient to "ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself." *Alice*, 134 S. Ct. at 2355. None of the limitations transform the abstract idea in the representative claims into

something patent-eligible in application. Each limitation adds detail to the basic method, such as how the data is stored or forwarded, or describe generic computer components or devices that can be programmed or used to perform that basic method. None of these limitations in the claim language disclose new, specific components or techniques, or are directed toward an improvement in the way a computer functions, rather are directed to the application of an abstract idea to a generic computer as an alternative to other "virus screening" software.

Glasswall argues that the patent claims recite a "specific technique for resolving disadvantages in prior art anti-virus software" but these limitations "do nothing more than spell out what it means to 'apply it on a computer" and cannot confer patent-eligibility. *Alice*, 134 S.Ct. at 2359.

V. CONCLUSION

For the foregoing reasons, the Court **GRANTS** Defendant's Motion to Dismiss. Dkt. # 8.

Dated this 29th day of November, 2017.

/s/ Richard A. Jones

The Honorable Richard A. Jones United States District Judge

[ENTERED: November 29, 2017]

UNITED STATES DISTRICT COURT WESTERN DISTRICT OF WASHINGTON AT SEATTLE

| GLASSWALL SOLUTIONS | |
|-----------------------|--------------|
| LIMITED and GLASSWALL | JUDGMENT |
| (IP) LIMITED, | IN A |
| | CIVIL CASE |
| Plaintiffs, | |
| | CASE NUMBER: |
| V. | C16-1833RAJ |
| | |
| CLEARSWIFT LTD., | |
| | |
| Defendant. | |
| | |

- ____ Jury Verdict. This action came before the Court for a trial by jury. The issues have been tried and the jury has rendered its verdict.
- X Decision by Court. This action came to consideration before the Court. The issues have been considered and a decision has been rendered.

THE COURT HAS ORDERED THAT

For the reasons stated in the Court's order of November 29, 2017, Judgment is entered in favor of Defendant Clearswift Ltd. and against Plaintiffs Glasswall Solutions Limited and Glasswall (IP) Limited.

DATED this 29th day of November, 2017.

21a

WILLIAM M. McCOOL, Clerk of the Court

By: <u>/s/ Victoria Ericksen</u>
Deputy Clerk

[ENTERED: March 27, 2018]

2018-1407

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

GLASSWALL SOLUTIONS LIMITED, GLASSWALL (IP) LIMITED,

Plaintiffs-Appellants,

v.

CLEARSWIFT LTD.,

Defendant-Appellee.

Appeal from the United States District Court, Western District of Washington, No. 2:16-cv-01833-RAJ, Judge Richard A. Jones.

APPELLANTS' OPENING BRIEF

Robert J. Carlson Lee & Hayes, PLLC 701 Pike Street, Ste. 1600 Seattle, WA 98101 P: 206-876-6029 Email: bob@leehayes.com

Attorneys for Appellants Glasswall Solutions Limited, Glasswall (IP) Limited

CERTIFICATE OF INTEREST

Pursuant to Federal Circuit Rule 47.4(a)(1) and Federal Rule of Appellate Procedure 26.1, counsel for Appellants certifies the following:

1. The full name of every party represented by me is:

Glasswall Solutions Limited Glasswall (IP) Limited

2. The names of the real parties in interest represented by me are:

Glasswall Solutions Limited Glasswall (IP) Limited

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the parties represented by me are:

Glasswall Solutions Limited has no parent corporation and no publicly held company owns 10 percent or more of its stock.

Glasswall (IP) Limited is a wholly-owned subsidiary of Glasswall Solutions Limited.

4. The names of all law firms and the partners or associates that appeared for the parties now represented by me in the trial court, or are expected to appear in this Court, are:

Lee & Hayes, PLLC Robert J. Carlson 5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal.

Glasswall Solutions Limited, et al. v. Clearswift Ltd., No. 2:16-cv-01833-RAJ (W.D. Wash. 2017)

Dated: March 27, 2018

/s/ Robert J. Carlson Robert J. Carlson

* *

STATEMENT OF RELATED CASES

In accordance with Federal Circuit Rule 47.5(a) and (b), Appellants state:

- A. There have been no previous appeals in or from the same civil action or proceeding in the lower court or body that were previously before this or any other appellate court.
- B. There is no case known to counsel that is pending in this or any other court or agency that will directly affect or be directly affected by this Court's decision in the pending appeal.

I. STATEMENT OF JURISDICTION

This is an appeal from the Judgment and Order of the United States District Court, Western District of Washington (the "District Court"), in an action for infringement of U.S patents, case number 2:16-cv-01833-RAJ, pursuant to 28 U.S.C. §1291 and 35 U.S.C. §1295. The District Court had subject matter jurisdiction under 28 U.S.C. §§1331 and 1338 because this action arose under the Patent Act, 35 U.S.C. §101 et seq.

The District Court issued its Judgment and Final Order dismissing the action under Fed. R. Civ. P. 12(b)(6) on November 29, 2017 (Appx001, Appx002-012). On December 27, 2017, Glasswall Solutions Limited and Glasswall (IP) Limited ("Glasswall") timely filed a Notice of Appeal, pursuant to 28 U.S.C. §§1291 and 1295. This appeal was received and docketed by this Court on January 12, 2018. This Court has appellate jurisdiction under 28 U.S.C. §1295(a)(1).

II. STATEMENT OF ISSUES PRESENTED FOR REVIEW

- 1. Are the claims of U.S. Patent Nos. 8,869,283 (issued October 21, 2014) and 9,516,045 (issued December 6, 2016) directed to patent-eligible subject matter pursuant to 35 U.S.C. §101?
- 2. In ruling on Clearswift's Motion to Dismiss under Rule 12(b)(6), did the District Court err by failing to accept the allegations in Glasswall's Amended Complaint as true, or by failing to construe the Amended Complaint in the light most favorable to Glasswall?

III. STATEMENT OF THE CASE AND ASSERTED FACTS

A. Introduction

Glasswall's Amended Complaint asserts infringement by Clearswift of two U.S. patents, issued in 2014 and 2016 respectively, with priority to a 2005 United Kingdom application. The patent claims are directed to protecting computers and networks against infection by malware downloaded as part of an incoming electronic file. The claimed methods eliminate the need to scan for the presence of malware in any type of file, by analyzing each type of file for conformity with known standards, extracting only conforming (i.e. allowable) data, then creating a substitute electronic file containing only allowable The data. District Court Clearswift's Rule 12(b)(6) Motion to Dismiss, prior to any claim construction proceedings (and thus without any focus on a skilled artisan's understanding of the claims in light of the specification), and without permitting Glasswall to present a requested oral argument. In granting the Motion, the District Court erroneously resolved questions of fact against Glasswall, and failed to construe Glasswall's Amended Complaint in the light most favorable to Glasswall.

Contrary to the conclusion of the District Court, the claims of the patents at issue are clearly directed to patent-eligible subject matter. The Judgment of the District Court, based on its erroneous ruling, must be reversed.

B. Glasswall's Innovative Security Technology.

Glasswall is a pioneering developer and seller of computer security technologies, including processes to protect computers, networks, and similar systems and devices from contamination by computer viruses, malware, and other unwanted code; data that may be downloaded during the transfer of electronic files. As asserted in Glasswall's Amended Complaint, the Glasswall technology provides for the exchange of information in electronic communications, through real-time inspection and sanitization of electronic files, without the need for a receiving computer to consult, maintain, or update virus definition library files to determine whether an incoming electronic file contains harmful code or data. Appx077, ¶9. As the Amended Complaint asserts, in one example where an email includes an attachment with virus-contaminated content, Glasswall's novel technology regenerates a benign file (from the original email attachment) using only data known to be allowable, thus delivering, in real time, a file that does not contain any contaminated content, without requiring the recipient's computer to evaluate whether non-allowable content is actually harmful. *Id.*; Appx078-079, ¶15.

In June 2005, Glasswall's founder, Nicholas Scales, filed an application for patent in the United Kingdom to secure exclusive rights in this technology: (GB) 0511749.4, Appx013. It was subsequently filed with the U.S. Patent and Trademark Office (USPTO) as a U.S. national phase application under the terms of the Patent Cooperation Treaty in June 2007. *Id.* The first issued patent in this family was not asserted

against Clearswift¹. A continuation application, filed April 4, 2012, issued October 21, 2014 as U.S. Patent No. 8,869,283 (the "283 patent"), Appx013; a later continuation application was filed October 2, 2014 and issued December 6, 2016 as U.S. Patent No. 9,516,045 (the "045 patent"), Appx031.

Both of these latter patents were asserted against Clearswift, and both were attached as Exhibits to the Amended Complaint. See Appx074-094; Appx078, Appx084. The two patents share a substantially identical specification, differing only in the identification of related applications at the beginning².

1. Recognition of virus behavior

As asserted in Glasswall's Amended Complaint, "the invention claimed in the '283 patent features novel methods and devices that improve the technology used in electronic communications and electronic data exchange via computer." Appx078-079, ¶15. The Amended Complaint includes a similar factual assertion regarding the '045 patent. Appx084-085, ¶32.

Consistent with the title of each patent, "Resisting the Spread of Unwanted Code and Data," the specification explains that unwanted code and data can include computer viruses, Appx020 (1:17-18), as well as spyware, malware, worms, and

¹ U.S. Patent No. 8,185,954.

² Reference herein to column and line numbers from the common specification will be from the '283 patent, and noted as (column:lines), e.g. (1:17-18).

trapdoors, *id.* (1:40-49). The specification explains that viruses may be self-propagating from one computer to another, and that other forms of unwanted code can be distributed by email, or might be concealed on a disk, or downloaded to a user's computer from an inadvertently visited website. A common aspect of all of these types of unwanted code is the originators of such malware try to conceal its real purpose, and even its existence, from owners and users of the computers at which malware is targeted. *Id.* (1:50-56).

Viruses and other malware may be attached to electronic communications in a separate attachment file, but also may be hidden within a file, e.g., an email, transmitted to a receiving computer. *Id.* (1:29-32). Also (as of the date of the inventor's original application), word processing, spreadsheet and database applications began to include macro scripting languages, which allow an electronic file having the appearance of a document to conceal an executable script that can perform unauthorized operations on a user's computer. *Id.* (1:32-39)³. As a result, as early as the 2005 priority date of both patents, an industry for supplying users with antivirus software had developed. *Id.* (1:57-59).

2. Disadvantages in prior art approach to virus protection

But as the specification teaches, the thenexisting antivirus software approach had numerous

³ The specification further describes malware propagated through other file types: text, HTML, XML and spreadsheet files, Appx022 (7:30-34), and TIFF and JPEG image files, Appx024 (10:53-64), for example.

disadvantages. Such prior art antivirus programs would typically operate in a monitor mode, in which files to be accessed must be checked for viruses at each time of access to the file, or in a scanning mode in which all files in a specific location (such as a disk drive) are scanned. The specification points out program providers monitor "[a]ntivirus outbreaks and, when new virus is detected, the antivirus program companies analyze the virus and extract data which can be used to detect the virus. This data is then made available to the computers which run the particular antivirus concerned " Id. (1:63-2:3).

The specification explains that this prior art numerous has drawbacks. computer viruses can easily be "mutated" by very minor changes in code, such that virus definition library files, the files of data needed at the receiving computer for detecting viruses, become extremely large and unwieldy. These files take up space on the user's computer, and ever-larger virus-definition files cause a corresponding increase in the time required to check incoming electronic files for the presence of known viruses. Appx020 (2:13-26), delaying the user's access to the incoming file. And as the specification points out, "as downloads [of virus definition files] become larger and are required more frequently, the risk that a user will fail to download necessary updates, and will therefore be unprotected against the most recent (and therefore the most dangerous) virus, is high." Id. (2:23-26).

Importantly, because the prior art approach looks for the presence of a virus and passes everything <u>unless</u> it is recognized as a virus, it <u>always</u> fails to

protect some number of computers, because new viruses must come to the attention of the antivirus company before they can be identified and added to the virus definition update. Appx021 (3:17-23). And the user lacks the best available protection unless he or she promptly downloads each virus definition update.

3. Solutions claimed in the Glasswall patents

The Glasswall patents teach and claim a wholly different method of malware protection, a technical solution that avoids the above-described disadvantages inherent in then-existing antivirus programs. The specification teaches that achieving interoperability different among electronic communication programs requires that most data file formats conform to known, rigid standards. Thus, the vast majority of electronic files exchanged are comprised of data meeting narrow pragmatic constraints. Appx020 (2:50-3:5). These "real world" constraints facilitate the detection of "normal," acceptable, electronic files. Appx021 (3:6-11).

Accordingly, the specification teaches that an improved malware protection can be achieved by defining and detecting <u>normality</u> (i.e., delivering only content that conforms with known file standards and typical user behavior) rather than attempting to detect <u>abnormality</u> (viruses and other malware), by regenerating and delivering to the user a substitute, safe electronic file that contains only conforming data, i.e. the normal content expected for the particular type of electronic file. This improved approach makes it unnecessary for a receiving computer to use virus

definition files at all, and thus avoids the need for frequent updates of such virus files. This improved solution also avoids the consequences of failure to identify newly-minted viruses; the Glasswall invention does not pass harmful code to the user's computer simply because that malware has not yet been added to the virus definition library files; instead it passes only allowable data that has been regenerated into a substitute file. Appx021 (4:29-33).

The inventor recognized, and the specification teaches, that Glasswall's new approach provides an additional advantage in that the standards for normal, acceptable files will need to be updated only infrequently, if at all, because these normal standards are relatively static; that is, they change much less frequently than malicious code, i.e. the "frantic speed with which antivirus updates must be distributed." Appx021 (4:33-36).

The specification recognizes that non-conforming files may originate with a trusted sender, and the claims of both patents include limitations specifying that non-conforming content data are forwarded only if authorized by the intended recipient.

Consequently, Glasswall's Amended Complaint asserts a factual allegation that the inventions claimed in the patents "improve the functioning of computers used in electronic communications and data exchange, by providing, for example, methods and devices that promote safe communications and data electronic transfer, eliminating code or data that may perform unwanted operations on the user's computer without the need to consult or update virus definition files." Appx079, Appx085, emphasis supplied. A further fact asserted in the Amended Complaint is that the invention applies technical solutions unique to electronic communication and electronic data transfer to solve technical problems that are unique to electronic communications and electronic data transfer; problems that may arise from the transfer of unwanted code and data such as, by way of example, computer viruses or unauthorized scripting. Appx079, Appx085, emphasis supplied.

C. Clearswift worked with Glasswall before releasing its own malware protection technology.

Glasswall's Amended Complaint alleges that in the spring of 2013, Glasswall began discussions with Clearswift about integrating Glasswall technology into Clearswift's suite of software products. Glasswall provided Clearswift with extensive documentation and technical information about Glasswall technology, toward goal of a trial integration of the Glasswall technology into Clearswift's product for proof of concept. Appx077-078.

After June of 2013, Clearswift abruptly discontinued communications with Glasswall; about six months later, Clearswift announced the addition to its product of an "Adaptive Redaction" technology, asserting that "Adaptive Redaction provides a mechanism whereby the traditional 'stop and block' nature of Data Loss Prevention solutions can be overcome with the automatic removal of the exact content which breaks policy - leaving the rest of the communication to continue unhindered and avoiding

the delay of valid business communications." Appx078. The "automatic removal" of "content which breaks policy" is the method claimed in Glasswall's patents.

D. Procedural History

Glasswall filed a Complaint in the District Court on November 28, 2016, Appx055-063, asserting direct infringement and inducement to infringe by Clearswift of the '283 patent, Exhibit A to the Complaint. Appx013-030. Glasswall attached, as Exhibit B, an example claim chart matching each limitation of Claim 1 of the '283 patent to an element of the Clearswift SECURE Email Gateway, as described in Clearswift's documentation and promotional literature. Appx064-073.

On December 6, 2016, the '045 patent issued, and on January 5, 2017 Glasswall filed an Amended Complaint, Appx074-091, to add allegations of direct and induced infringement of the '045 patent. The Amended Complaint retained the original Exhibits A, Appx013-030, and B, Appx064-073, added the '045 patent as Exhibit C, Appx031-050, and included as Exhibit D, Appx092-101, an example claim chart matching each limitation of Claim 1 of the '045 patent to an element of the accused Clearswift SECURE Email Gateway. The Amended Complaint alleged that Clearswift infringed one or more claims of the '283 patent, Appx079, ¶17, and one or more claims of the '045 patent, Appx085, ¶33; the Amended Complaint further identified additional Clearswift products that Glasswall asserted, on information and belief, to infringe both patents, Appx080, Appx086.

On April 4, 2017, Clearswift filed a Motion to Dismiss the Amended Complaint under Rule 12(b)(6), and as provided under local rule, Clearswift requested that the motion be set for oral argument. Appx102⁴.

Two days later, on April 6, 2017, the District Court *sua sponte* entered the following on the docket: "The Court acknowledges the requirements of FRCP 16(b), but defers entry of an initial case scheduling order pending its ruling on Defendant's . . . MOTION to Dismiss Plaintiffs' First Amended Complaint Under Rule 12(b)(6)." Appx053. This entry had the effect of suspending all case management activities, and specifically halted claim construction proceedings under the Western District of Washington's Local Patent Rules⁵ ("LPR"); proceedings that otherwise would have commenced following entry of a case schedule, LPR 120, and culminated in the Claim Construction Hearing under LPR 135. The District Court thus halted any opportunity for discovery relevant to claim interpretation, and procedures for each party to exchange claim interpretation contentions under LPR 112, 120, and 121.

⁴ Western District of Washington Local Civil Rule 7(b)(4) provides "a party desiring oral argument shall so indicate by including the words 'ORAL ARGUMENT REQUESTED' in the caption of its motion or responsive memorandum." The Local Civil Rules may be accessed online at http://www.wawd.uscourts.gov/sites/wawd/files/WAWDAllLocal CivilRules-2017.pdf.

⁵ The Western District of Washington Local Patent Rules may be accessed online at http://www.wawd.uscourts.gov/sites/wawd/files/LRPatentRules-Final.pdf.

On April 24, 2017, Glasswall filed its Response in opposition to Clearswift's Rule 12(b)(6) Motion, also requesting oral argument, Appx131, and including two declarations to augment the District Court's understanding of the character of the Glasswall patents at issue, Appx161-169, Appx171-179. Clearswift filed its Reply on April 28, 2017, and reiterated its own request that the District Court schedule oral argument.

On November 29, 2017, without granting the request of either party for an oral argument hearing, without considering the proffered declarations, without permitting discovery, and without conducting a claim construction process or any other processes under the Local Rules, the District Court issued its Order granting the Motion, Appx002-012, and entered Judgment in favor of Clearswift, Appx001.

IV. SUMMARY OF THE ARGUMENT

The District Court's Judgment and Order should be reversed, because the claims of the Glasswall patents are plainly directed to patent-eligible subject matter under 35 U.S.C. §101. As asserted in the Amended Complaint, these claims cover an inventive, non-abstract solution to a problem unique to electronic communications in the computer environment. The Amended Complaint alleged that the patents teach and claim a specific and concrete method to improve computer function: a better way for computers to transmit electronic communications while eliminating the spread of computer viruses and other malware. Under the two-step analysis set forth in Alice Corporation Pty. Ltd. v. CLS Bank International, ___ U.S. __, 134 S. Ct. 2347 (2014), the

Glasswall patents are plainly directed to subject matter that is eligible for patent protection under 35 U.S.C. §101.

The asserted claims of the Glasswall patents provide a concrete, non-abstract improvement to computer function; they analyze the behavior of incoming electronic files for conformity with allowable standards, eliminating the need for a traditional "code-matching" virus scan. A similar "behaviorapproach was found to constitute improvement in computer functionality and resulted in claims deemed patent-eligible in Finjan, Inc. v. Blue Coat Systems, Inc., 879 F.3d 1299, 1304 (Fed. Cir. 2018). The Glasswall patents claim subject matter markedly different from the simple email "filtering" operations found to be abstract as a mere computer implementation of a brick-and-mortar "post office" in Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1319 (Fed. Cir. 2016).

Computer security technology in the 2005 timeframe of the claimed invention was based on traditional "code-matching" virus scanning, requiring the receiving computer to maintain a library of virus definitions, and scanning an incoming electronic file against those definitions to look for a match with known malicious code. The traditional approach had numerous drawbacks, among them the delay inherent to the code-matching technique, the need to constantly update virus definition files, and the risk that newly-"mutated" viruses or other harmful code not yet appearing in a virus definition library would not be identified at all, and thus not be blocked from operating on the user's computer.

solve these problems, To the inventor recognized that the great majority of legitimate electronic communications conform to recognized standards of normality, such that where incoming files did not so conform, i.e. did not behave normally, those files could be sanitized by the claimed method of creating a substitute regenerated electronic file, in a proper and usable file format, but composed only of conforming (i.e., allowable) content. This method would guarantee that only secure communication files would be made available to the user's computer, while eliminating the need for that computer to use and update virus definition library files. The invention solves a specific problem unique to the computer environment, provides tangible benefits, and includes limitations that eliminate any concern that this method would preempt all modes of virus scanning. Thus the '283 and '045 patent claims are, as a matter of law, patent-eligible under 35 U.S.C. §101.

Alternatively, if there is any doubt about patent-eligibility on the slim record developed in the District Court, the Judgment and Order should be because the District vacated. Court's demonstrates, contrary to precedent in the Ninth Circuit, it failed to accept as true the factual allegations in Glasswall's Amended Complaint (and attached Exhibits), failed to resolve reasonable inferences in Glasswall's favor, and erroneously reached its conclusion based solely on attorney arguments and a false analogy to a different patent owned by Intellectual Ventures.

ARGUMENT

V. THE '283 AND '045 CLAIMS ARE PATENT-ELIGIBLE

A. Standard of Review.

This Court reviews a "district court's dismissal for failure to state a claim under the law of the regional circuit." Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n, 776 F.3d 1343, 1346 (Fed. Cir. 2014). The Ninth Circuit reviews de novo the grant of a motion to dismiss under Rule 12(b)(6): "in so doing, we accept 'all factual allegations in the complaint as true and construe the pleadings in the light most favorable to the nonmoving party." Syed v. M-I, LLC, 853 F.3d 492, 499 (9th Cir. 2017), cert. denied, 138 S. Ct. 447 (2017); Manzarek v. St. Paul Fire & Marine Ins. Co., 519 F.3d 1025, 1031 (9th Cir. 2008).

Pursuant to Fed. R. Civ. P. 12(b)(6), a defendant may move to dismiss an action for failure to allege "enough facts to state a claim to relief that is plausible on its face." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged. The plausibility standard is not akin to a 'probability requirement,' but it asks for more than a sheer possibility that a defendant has acted unlawfully." *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citation omitted).

A District Court's determination on subject matter eligibility under 35 U.S.C. §101 is reviewed de novo. *McRO*, *Inc.* v. *Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1311 (Fed. Cir. 2016).

Because a patent issues only after the USPTO has assessed and endorsed its eligibility under §101, this Court has held *en banc* that the presumption of validity applies to all challenges to patentability, including those under §101, and that any attack on an issued patent based on subject matter eligibility must be proven by clear and convincing evidence. *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1304-05 (Fed. Cir. 2013), *aff'd*, __ U.S. ___, 134 S. Ct. 2347 (2014). The Supreme Court opinion was apparently silent as to the burden to be met by one challenging a patent's validity.

B. Alice Step One: the '283 and '045 Claims are not Directed to an Abstract Idea

Analysis of patent eligibility is informed by the Supreme Court's 2014 *Alice* opinion, which sets forth a two-step "framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts," *Alice*, 134 S. Ct. at 2355.

1. Character of the claims

This Court's precedent provides that a patent eligibility analysis requires a court to fully understand what the claim's "character as a whole" is "directed to." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) ("[W]e have

described the first-stage inquiry as looking at the 'focus' of the claims, their 'character as a whole "). An understanding of the Glasswall patent claims necessarily begins with analysis of the specification supporting those claims. Indeed, patent claims must always be understood in the context of the entire patent, including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). Patent claims are interpreted as of the effective filing date of the patent application, and must be read as they would be by a person of ordinary skill in the relevant art. *Id.*

In determining the character and purpose of patent claims, the Court should not reach for an unduly "high level of abstraction . . . untethered from the language of the claims" *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Because all inventions, at some level, apply laws of nature, natural phenomena or abstract ideas, the Court must "ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful." *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1347 (Fed. Cir. 2017), (citing *Alice*, 134 S. Ct. at 2354: "[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.").

When the claims of the '283 and '045 patents are read in the context of the specification, the character of the claims would be understood by a person of skill in the art at the time the invention to be as they were alleged in Glasswall's Amended Complaint: "technical solutions [that] improve the functioning of computers used in electronic

communications," Appx079, Appx085. That skilled artisan, assessing the claims in light of their specification, would conclude that the claims are directed to analyzing a received electronic file for conformity with allowable content (as determined by rules associated with that file type), then extracting only the allowable content, and regenerating a substitute file containing only allowable content, all without the traditional scanning for harmful code; and with the added limitation that non-conforming content is forwarded only if originating with an authorized sender. The skilled artisan would recognize this as a concrete and non-abstract improvement to the function of computer and network rather than security, the mere "filtering mechanisms," Appx009, identified by the District Court.

a. Teachings of the patents' common specification

Because a person of ordinary skill in the art is deemed to read claims "in the context of the entire patent, including the specification," *Phillips*, 415 F.3d at 1314, it is essential to turn to the specification to determine the character of the claims. Consistent with the title of each patent, "Resisting the Spread of Unwanted Code and Data," the specification explains that unwanted code and data can include computer viruses Appx020 (1:17-18) as well as spyware, malware, worms, and trapdoors, *id.* (1:40-49); these may be attached to electronic communications in a separate attachment file, but also may be hidden within a file, e.g., an email, *id.* (1:29-32). Also, word processing, spreadsheet and database applications include macro scripting languages, which allow a file

having the appearance of a document to include an executable script that can perform unauthorized operations on a user's computer, *id.* (1:32-39).

An embodiment disclosed in the specification describes determining whether an incoming file conforms to standard, allowable, content and format by use of "conformity analysing devices," specific to each type of file. Appx022 (5:50-59). The specification explains that electronic files generally consist of content data encoded and arranged in accordance with a file type specification comprising a particular set of rules; rules specific to each type of file, e.g. "text, HTML, XML, spreadsheet and so on." Id.. It suggests examples of components of data types that may not be allowed to pass through the system, such as "complex macros in word-processed files, and I-frames in HTML pages," Appx022 (6:30-34), and "control characters in ASCII file" that are not commonly used. Appx022 (6:37-39).

The specification describes extracting all allowable content data permitted to be extracted under rules applicable to the specific file format, and using that extracted content to regenerate a substitute file, pointing out that "[i]n this manner, due to the conformity check and regeneration of the file, viruses are unable to enter and infect the operating system" Appx022 (6:59-61).

Court, Appx009, the specification's teachings are not confined to "filtering" text, and those teachings concern far more than email messages. Instead, the specification explicitly discloses handling other types of electronic files that may be used to secretly

transmit malware: text, HTML, XML, spreadsheet, word-processed files and I-frames as described above, as well as JPEG image files, Appx024 (10:58-62) and Tagged Image File Format (TIFF) files, Appx024 (10:41-43). The specification further describes sanitizing a nesting of different types of data by recursively calling the conformity analyzing devices for each file type, enabling the system to process an attached zip file, that includes a word processing document, that itself includes a JPEG picture file. Appx024 (10:53-64). Other example conformity analyzing devices are disclosed for the handling of Comma Separated Variable (CSV), Rich Text Format (RTF), and ASCII files, MIME and RFC 822 headers, source code, BinHex, and Base 64 structured code. Appx025 (11:16-12:37).

b. Claims of the '283 patent

The patent claims, when read in light of the specification by a skilled artisan at the time of the invention, clearly incorporate and are directed to this improved approach to malware protection. Claim 1 of the '283 patent (Appx027) reads:

A method for processing an electronic file to create a substitute electronic file containing only allowable content data, the method comprising:

receiving an electronic file containing content data encoded and arranged in accordance with a predetermined file type; determining a purported predetermined file type of the received electronic file and an associated set of rules specifying values or range of values of allowable content data;

determining at least an allowable portion of the content data that conforms with the values or range of values specified in the set of rules corresponding to the determined purported predetermined file type;

extracting, from the electronic file, only the at least an allowable portion of content data;

creating a substitute electronic file in the purported file type, said substitute electronic file containing only the extracted allowable content data;

forwarding the substitute regenerated electronic file only if all of the content data from within the electronic file conforms to the values or range of values specified in the set of rules; and

forwarding the incoming electronic file if a portion, part or whole of the content data does not conform only when the intended recipient of the electronic file has pre-approved the predetermined file type when associated with the sender of electronic file.

A person of skill in the art would understand that Claim 1 of the '283 patent is directed to a process for eliminating unwanted code by a behavior-based analysis of an incoming electronic file, through (i) examining an electronic file for normal (conforming) content, (ii) extracting only the conforming content, (iii) regenerating that into a sanitized file, and (iv) applying the pre-approval rubric to any nonconforming code. The specification would remind that skilled artisan of the disadvantages inherent in a traditional "code-matching" virus scan (as described in section III.B.2. above). The artisan would immediately appreciate the advantages in a malware protection solution that did not require maintaining or consulting virus definition files, and recognize that the specification describes, and Claim 1 implements, that innovative solution.

In the '283 patent, dependent Claims further specific limitations impose determination of known, acceptable file content, including defining allowable control characters as described in the specification at Appx025 (11:45-57), or limiting the line size in an image file as discussed at Appx026 (13:2-6). Claim 7 imposes an isolation scrambling limitation as described in Appx022 (5:22-35), while Claim 8 provides for scrambling an incoming file in bit reversed order as a specific form The isolation. remaining dependent independent claims impose other specific limitations. Again, the person of skill in the art at the time of the invention would read those other dependent and independent claims to be directed to a concrete improvement in computer and network security; a solution to the disadvantages inherent in thenexisting code-matching scans to protect against the spread of malware.

c. Claims of the '045 patent

Claim 1 of the '045 patent (Appx047-048) reads:

A method for resisting spread of unwanted code and data without scanning incoming electronic files for unwanted code and data, the method comprising the steps, performed by a computer system, of:

- (a) receiving, at the computer system, an incoming electronic file containing content data in a predetermined file type corresponding to a set of rules;
- (b) determining a purported predetermined file type of the incoming electronic file;
- (c) parsing the content data in accordance with a predetermined data format comprising a set of rules corresponding to the determined purported predetermined file type;
- (d) determining nonconforming data in the content data that does not conform to the predetermined data format;
- (e) determining that the nonconforming data is authorized; and

(f) regenerating the nonconforming data to create a substitute regenerated electronic file in the purported file type, said substitute regenerated electronic file containing the regenerated content data, if the nonconforming data is determined to be authorized.

Just as with the '283 patent, a person of skill in the art as of the date of the invention would read the '045 claims in light of the specification, recognizing from the preamble that the method of Claim 1 is directed to halting the transmission of malware without scanning for malware (thereby avoiding the disadvantages of a traditional "code-matching" scan) through analyzing the behavior of an incoming file for conformity with allowable content rules, and regenerating a substitute file using only allowable content.

The '045 patent includes dependent claims that implement additional limitations similarly to those of the '283 patent, that would similarly be understood by the skilled artisan to be directed to a non-abstract improvement in the function of computer and network security, and a solution to the propagation of malware that avoids the disadvantages of a traditional prior art "code-matching" scan.

2. Factual allegations in the Amended Complaint regarding the '283 and '045 claims

It is noteworthy, in assessing the patenteligibility of the claims, that Glasswall's Amended Complaint included express allegations of fact that the invention claimed in the Glasswall patents improve the technology used in electronic communications, and provide solutions unique to such communication, solving technical problems unique to the computer environment, Appx078-079, Appx084-085.

Glasswall's factual allegations, and the District Court's erroneous treatment of them, are addressed in detail in Section VI, below.

3. The '283 and '045 Claims are directed to non-abstract concepts

a. Clear improvement to computer function as in Finjan, Inc.

This Court's recent opinion in Finjan, Inc. v. Blue Coat Systems, Inc., 879 F.3d 1299 (2018) provides useful insights that should be dispositive, in Glasswall's favor, of the patent-eligibility issue presented in this appeal. Claim 1 of Finjan's '844 patent provided for scanning of a "Downloadable" and subsequent attachment of the results of that virus scan in the form of a "new regenerated file," id. at 1304. The opinion notes that in *Finjan*, the District Court had conducted a claim construction emphasizing that the claim limitation requires the new regenerated file to include "details about the suspicious code in the received downloadable," id., and that this behavior-based scanning technique was significantly distinct from "traditional matching' virus scans that are limited to recognizing the presence of previously identified viruses." *Id.* This different approach was found to constitute an improvement in computer functionality, rendering it

patent-eligible. The opinion notes that details attached to the newly generated file "can be used to protect against previously unknown viruses as well as 'obfuscated code' - known viruses that have been cosmetically modified to avoid detection by codematching virus scans." *Id.* at 1304. This method "employs a new kind of file that enables the computer security system to do things it could not do before," *id.* at 1305, emphasis supplied, and was found to be the sort of non-abstract improvements to computer technology that must be deemed patent-eligible subject matter at *Alice* step one, as in *Enfish*, *LLC v. Microsoft Corporation*, 822 F.3d 1327, 1335-36 (Fed. Cir. 2016).

Similarly, the Glasswall patent claims are a concrete improvement functionality of a computer security system. employing a new kind of file (the substitute regenerated file containing only allowable content data) that solves the problems inherent in traditional code-matching scans. The Glasswall approach avoids scanning for viruses altogether, instead analyzing the behavior of an incoming file for conformity with known standards, and regenerating a substitute file using only the conforming data.

Patent claims directed to an improvement in the functioning of a computer have consistently been deemed not abstract, in contrast to "simply adding conventional computer components to well-known business practices" *Enfish*, 822 F.3d at 1338.

The *Enfish* opinion emphasized that the patent's specification taught that "the self-referential table functions differently than conventional

database structures," *id.* at 1337, and explained that the claimed invention achieved benefits over conventional database structures "such as increased flexibility, faster search times, and smaller memory requirements." *Id.*

Similarly, the specification common to the Glasswall '283 and '045 patents teaches how the approach of looking for conformity with standard file specifications "operates in a fundamentally different manner to known anti-virus programs [which] aim to detect viruses," Appx021 (3:15-18). And just as in Enfish and Finjan, the Glasswall specification teaches the advantages of this different approach. The claimed Glasswall method eliminates the need to store bloated virus definition files and scan incoming content to look for the known viruses defined in them Appx021 (3:15-23; 4:29-39). Additional advantages include eliminating the need for users to continually download new virus definitions, and zero-day protection, protecting even against brand-new viruses that have not been added to any definition file, see Finjan, 879 F.3d at 1304. Just as alleged in Glasswall's Amended Complaint, the Glasswall invention applies unique solutions to problems that are unique to the computer environment and its need for secure exchange of electronic communications. Appx078-79, Appx084-85.

The reasoning of *Finjan* and *Enfish* shows that the Glasswall patents are plainly directed to an improvement in computer function, not simply to automating a common business process using computers. The Glasswall patent claims focus on a specific method for improving the relevant malware elimination technology; they are not directed to "a

result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery." *McRO*, 837 F.3d at 1314.

Because the Glasswall patent claims are directed to a specific, concrete improved method for eliminating malware, they are "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks," and are therefore directed to patent-eligible subject matter. *DDR Holdings*, *LLC v. Hotels.com*, *L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014).

b. No "brick and mortar" analogy

A technique observed in some decisions for determining abstraction is to determine whether the patent can easily be analogized to a "brick and mortar" process, implementing "fundamental . . . practice[s] long prevalent in our system," *Alice*, 134 S. Ct. at 2356.

Prompted by Clearswift's briefing, the District Court relied heavily upon *Intellectual Ventures*: "the Court finds the reasoning in *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307 (Fed. Cir. 2016) to be persuasive." Appx008. The District Court observed that the *Intellectual Ventures* decision "analogized [the claim at issue] to other cases in which claims directed to filtering content based on a known list of identifiers were found to be abstract ideas" Appx008.

The District Court then adopted a false analogy, determining that the Glasswall "claim language is similarly directed toward the filtering of electronic files and data. The file is analyzed to see if it conforms to certain parameters, and if data is found does not conform, is extracted and the file is regenerated without it. This is analogous to content censoring or the redaction of private information from public documents. Without the added references to the specific applications or the context contained in the patents embodiments, the claim is directed to an abstract concept." Appx009.

This language from the District Court's Order illustrates the fundamental error in its approach. As addressed in more detail in Section VI below, the District Court arrived at this conclusion only by ignoring clearly-pled factual allegations from the Amended Complaint, and by failing to heed this Court's fundamental instruction that patent claims must always be assessed in light of the specification, and based on the understanding of a person of skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1313-14. But this language from the Order also illustrates that the District Court completely failed to understand the non-abstract concepts to which the Glasswall patent claims are directed.

In *Intellectual Ventures*, this Court concluded that the fundamental character of the subject claims recited "receiving, screening, and distributing e-mail" and us were merely an abstract idea, because they could easily be analogized to processes in respect to paper mail occurring in a "brick and mortar" post office or corporate mailroom:

[I]t was long-prevalent practice for people receiving paper mail to look at an envelope and discard certain letters, without opening them, from sources from which they did not wish to receive mail based on characteristics of the mail. The list of relevant characteristics could be kept in a person's head. Characterizing e-mail based on a known list of identifiers is no less abstract.

Intellectual Ventures, 838 F.3d at 1314.

But the Glasswall patents do <u>not</u> have any brick-and-mortar analogy. Indeed, it is impossible to call to mind a long prevalent, fundamental practice that can be analogized to the technology of the Glasswall patents. While malware hidden in an electronic message is commonplace, paper mail containing genuinely harmful content is virtually unheard of. Unlike computer viruses, written content in a letter cannot disable the reader's mind, or migrate elsewhere in the reader's home and affect its operation.

Moreover, the District Court's analogy to content censoring or redacting information from documents reflects a fundamental misunderstanding of the challenge posed by malware in electronic communications. The process of redacting information from a paper document requires an understanding of what must be redacted, i.e. requires scanning information to determine whether it should be blacked out, analogous to the "code-matching" of prior art virus scanning. As the specification teaches, and as a skilled artisan would recognize, because malware is intentionally hidden or disguised, the harm in malware typically cannot be detected without comparing code to virus definition files. And the

specification describes the numerous disadvantages inherent to the code-matching scheme. The District Court simply did not understand that the Glasswall patents teach and claim a solution that avoids these disadvantages altogether. And as addressed in Section VI, the District Court simply assumed that the Glasswall claims could be analogized to the ineligible claims in *Intellectual Ventures* without taking the allegations in Glasswall's Amended Complaint as true. The District Court's own conclusion plainly disregarded the specification's teaching (and completely failed to consider how a skilled artisan would read claims in light of the specification's teaching): "redacting" harmful content requires scanning it and making a determination that content is harmful, and in a computer context, requires that the computer must have been told how to determine harm by means of an updated virus definition library.

The claims of the '283 and '045 patents address a problem that simply does not exist in the real world, outside the computer environment. Contrary to the conclusion of the District Court, the Glasswall patents are directed to a specific computer improvement rather than an implementation, by standard computer usage, of a long-prevalent real-world practice. *DDR Holdings*, 773 F.3d at 1258.

c. Not drawn to a "mental process"

Another technique for determining abstraction is considering whether a claimed method is "drawn to a mental process-a subcategory of unpatentable abstract ideas," *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016),

citing CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366, 1371 (Fed. Cir. 2011).

example given in *CyberSource* The illustrative. This Court assessed a claim for "verifying the validity of a credit card transaction over the Internet" which involved (1) "obtaining information" about other transactions that were conducted with the same Internet address, (2) "constructing a map" of those credit card numbers, and (3) "utilizing the map of credit card numbers to determine if the credit card transaction is valid." 654 F.3d at 1370. The Court deemed the claim unpatentable because the entire method "can be performed in the human mind, or by a human using a pen and paper." Id. at 1372 (emphasis supplied).

Specifically, the Court held, the step of "obtaining information . . ." could "be performed by a human who simply reads records of Internet credit card transactions from a preexisting database." *Id.* The step of "constructing a map . . ." could be performed "by writing down a list of credit card transactions made from a particular IP address." *Id.* The step of "using the map . . ." was so broad that it "necessarily include[d] even logical reasoning that can be performed entirely in the human mind." *Id.* at 1373. Thus, the opinion concluded, the claim was entirely directed to a mental process. *Id.*

But the mental step analysis clearly does not apply to the Glasswall patents. As addressed above, fundamental to the claims of the Glasswall patents is the concept of storing sets of rules, values, and parameters of normal, acceptable electronic file formats for the wide variety of file types commonly exchanged in computer communications. The claims require receiving incoming electronic files, identifying the correct file type(s), analyzing the file content to identify conforming content then regenerating conforming content into a new file, and applying the "pre-approval" or "authorized" analyses.

That these steps cannot be performed in a human mind or with pencil and paper is easily illustrated by considering how to process a contaminated JPEG image file that has, for example, harmful code embedded in its header or concealed within its data. Analysis of such a file is vastly too complex to be processed with pen and paper, or by a human being merely looking at an image; the malicious code is intentionally hidden from view. It is impossible to conceive how a human mind, or pen and paper, might analyze the structure of an electronic image file at all, much less assess it for conformity to expected rules, then reassemble the data into a regenerated image that omits the nonconforming, contaminated data.

C. Alice Step Two

Because the Glasswall patents clearly are not directed to an abstract idea, it is unnecessary for this Court to engage in consideration of *Alice* step two.

But even if the Court were to reach the opposite conclusion as to step one, the patents clearly set forth an inventive concept that would render even an abstract idea eligible for patent protection under *Alice* framework step two.

The *Alice* opinion emphasizes that "an invention is not rendered ineligible for patent simply because it

involves an abstract concept. '[A]pplication[s]' of such concepts 'to a new and useful end,' we have said, remain eligible for patent protection." 134 S. Ct. at 2354 (internal citations omitted).

An illustration of concepts that have been found to meet the "something more" analysis of step two of the Alice framework is found in *DDR Holdings*. The patent at issue in that case dealt with an ecommerce website, essentially an online store, which generated additional revenue by selling advertising space, which could include banner ads with links to items offered for sale by third-party merchants. The disadvantage to the online store owner was that a user, clicking on such third-party ad would leave the host's webpage, such that the host lost control of potential customers. The patent claimed a novel solution in the method of serving the website visitor a hybrid webpage merging the host's content with that of the third-party merchant, allowing the host to retain control of the website visitor.

The Court held that the relevant patent claims recited an inventive concept:

a specific way to automate the creation 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. As a result, the '399 patent's claims include 'additional features' that ensure the claims are 'more than a drafting effort designed to monopolize the [abstract idea].' *Alice*, 134 S. Ct. at 2357. In short, the claimed solution

amounts to an inventive concept for resolving this particular Internetcentric problem, rendering the claims patent-eligible.

DDR Holdings, 773 F.3d at 1259.

The Glasswall patent claims are not directed to "filtering of electronic files and data", Appx009; neither are they directed to "blocking e-mails that may have a virus" or any similar broadly abstract concept. Instead, the claims of Glasswall's '283 and '045 patents recite a specific technique for resolving disadvantages in prior art anti-virus software. The Glasswall claims are specific to the disclosed method, provide for analysis of incoming files for conforming content and creating a regenerated file that may be safely passed on to the user. Each of the claims also incorporates the pre-approval rubric to allow for receipt of nonconforming content from trusted senders.

Thus, construed as they must be in Glasswall's favor, the patent claims do not simply instruct the reader to take a routine, conventional activity and implement it via computer, that is, they do not simply disclose an idea and claim the result. As explained above the District Court drastically misconstrued the claims in comparing them to simple "redaction" of unwanted content in a paper document.

1. The independent claims of both patents include inventive concepts and yield important benefits

The limitations of the independent claims of both the '283 and '045 patents include inventive

concepts that yield important benefits over thenexisting network security systems, rendering those claims eligible under *Alice* step two.

Specifically, in contrast to the traditional codematching malware scanning technology prevalent at the time of the invention, the methods claimed in the independent claims do not pass content unless it is found to be harmful. Rather, through the claimed technique of creating a substitute regenerated electronic file bearing only allowable content, the claims are specifically directed to a unique inventive concept and protecting computers and network systems against the propagation of malware. This is a distinct improvement over the then-existing reactive technology, which allowed the propagation of content unless it was specifically identified as harmful. Thus, the claimed method allows individual computers and networks to be shielded from newlycreated malware, and just-introduced variants that have not vet been identified as harmful by an antivirus company and incorporated into that company's virus definition library.

This element is further inventive because it bypasses the need for an individual user to update his or her computer with the latest virus definition files, whereas prior art systems were entirely dependent upon user compliance in order to achieve the best available security.

And a further inventive benefit derives from the fact that the user need not devote a portion of a computer's memory or hard drive to a bloated virus definition file. Instead, through the inventive concept of focusing on normality of file types, on known, allowable file formats and content, the methods claimed by Glasswall avoid the use of such files altogether.

These concrete benefits over conventional virus protection systems emphasize the patent eligibility of both patents' independent claims. When viewed as a whole, these claims include meaningful limitations that restrict them to the particular claimed application, in contrast to broadly worded claims that "do not 'narrow, confine or otherwise tie down the claim." Accenture Glob. Servs., GmbH v. Guidewire Software, Inc., 728 F.3d 1336, 1344 (Fed. Cir. 2013). Moreover, these limitations are clearly laid out in the claim language themselves, and do not require reliance on technological details set forth only in the patent specification as in Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1322.

2. Dependent claims in both patents include further inventive concepts and benefits

Because Claim 1 of both patents sets forth patent eligible subject matter, the dependent claims are similarly patent eligible. Additionally, however, the dependent claims include further meaningful inventive concepts that were ignored or not addressed by the District Court.

For example, Claim 3 of the '283 patent includes a further limitation of determining whether content data conforms to prior known examples of acceptable data. Claim 4 is directed to allowable control characters, while Claim 5 includes the limitation of defining predetermined file size limits.

Claim 6 depends from claim five, and focuses on the size of a line in an image file. As set forth above, Claims 7-9 impose detailed scrambling formats to isolate potentially harmful content and incoming file to prevent harmful code from executing while conformity analysis is being performed.

Similarly, dependent claims of the '045 patent include further meaningful inventive concepts, such as, in Claim 3, determining whether conforming content data conforms to prior known examples of acceptable data. Claim 4 of the '045 patent is directed to allowable control characters, while Claims 5 and 6 focus on size limits, including the size of a line in an image file. Other dependent claims of the '045 patent focus on scrambling content data as in the '283 patent.

The limitations to the claimed invention amount to significantly more than a mere abstract idea. Thus, even if the claims were determined to be directed to abstract subject matter in step one of the Alice framework, they would still be patent-eligible under step two.

VI. THE DISTRICT COURT IMPROPERLY ADJUDICATED PATENT ELIGIBILITY AT THE RULE 12(B)(6) STAGE

A. Standard of Review.

The Ninth Circuit reviews de novo the grant of a motion to dismiss under Rule 12(b)(6): "in so doing, we accept 'all factual allegations in the complaint as true and construe the pleadings in the light most favorable to the nonmoving party." Syed, 853 F.3d at 499; Manzarek, 519 F.3d at 1031.

B. Factual Allegations in the Amended Complaint and Exhibits

A de novo determination whether the District Court accepted "as true all factual allegations in the complaint" in granting the Clearswift Motion begins with assessing the allegations in Glasswall's Amended Complaint.

The Amended Complaint alleges generally that the Glasswall technology provides a secure exchange of electronic information through real-time inspection and sanitization of electronic documents, and gives the example of an e-mail with a contaminated document attached, alleging that the Glasswall technology regenerates a benign file from the original e-mail attachment, removing the contaminated content and delivering a safe document in real time. Appx077.

As to the '283 patent, it alleges the invention claimed therein features novel methods and devices "that improve the technology used in electronic communications and electronic data exchange via computer." Appx078-079. It alleges that the claimed invention "applies technical solutions unique to electronic communications and electronic data transfer to solve technical problems that are unique" to those operations. *Id*.

The Amended Complaint alleges that the technical solutions claimed in the '283 patent improve the functioning of computers used in electronic

communications by providing, for example, methods and devices that promote safe electronic communications and data transfer, eliminating code or data that may perform unwanted operations on the user's computer without the need to consult or update virus definition files. Appx079.

Similarly, the Amended Complaint alleges the '045 patent claims an invention that features novel methods and devices "that improve the technology used in electronic communications and electronic data exchange via computer." Appx084. It alleges that the claimed invention "applies technical solutions unique to electronic communications and electronic data transfer to solve technical problems that are unique" to those operations. Appx084-085. And as with the '283 patent, the Amended Complaint alleges that the technical solutions claimed in the '045 patent improve the functioning of computers used in electronic communications by providing, for example, methods and devices that promote safe electronic communications and data transfer, eliminating code or data that may perform unwanted operations on the user's computer without the need to consult or update virus definition files.

Additionally, the Amended Complaint included, as Exhibits A and C, the '283 and '045 patents and their specification. As detailed in Section V. above, the specification describes in detail the inherent disadvantages of then-existing codematching virus scanning techniques, and asserts that the invention disclosed provides a novel solution: determining the specifications of expected, normal content in multiple different file types, and determining the values of allowable content for each

file type. The solution includes preparing, then forwarding to the user, a regenerated substitute electronic file using only that allowable content. Nowhere in the specification is there any suggestion, much less an admission by the applicant, that the invention described simply uses a computer to implement a long-standing, real-world process. In fact, the specification makes it clear that the invention is directed to a problem unique to the computer environment, just as alleged in the Amended Complaint.

The District Court was provided with additional factual evidence supporting the patent eligibility of the Glasswall claims. Specifically, Glasswall provided the declaration of Dr. Raymond Leopold, Appx161-170. In it, he described the advantages unique to computer security claimed in the '283 and '045 patents, explained that Glasswall's invention has received industry recognition as a noteworthy improvement in network security, and pointed out that government agencies in the United States and allied nations have procured products incorporating the Glasswall invention to provide secure communications with defense and security contractors. Glasswall also submitted the declaration of Ariel Rogson, in which he explained that both patents were issued by the USPTO after the Supreme Court's *Alice* opinion, and without any rejection by the patent examiner for non-statutory subject matter, according to Guidelines issued to assist examiners and applicants in that determination. Appx171-176. These declarations were not considered by the District Court. Appx002-003 (footnote).

C. The District Court Erred in its Approach to the 12(b)(6) Motion

Under controlling Ninth Circuit precedent, when considering Clearswift's Motion pursuant to Rule 12(b)(6), the District Court was obligated to accept as true all these factual allegations in the Amended Complaint, including statement made by the applicant in the patent specification attached as Exhibits. That is, the only factual allegations of record established that Glasswall's claimed inventions improve the functioning of computers in a novel way, and provide a concrete, well-described solution to a problem unique to electronic communications in the computer and network environment.

As a result, the District Court's conclusion that the '283 and '045 patent claims are directed to an abstract concept, Appx009, is error. Where a patentee's complaint includes allegations similar to Glasswall's:

[t]hese allegations suggest that the claimed invention is directed to an improvement in the computer technology itself and not directed to generic components performing conventional activities. We have repeatedly held that inventions which are directed to improvements in the and operation offunctioning computer are patent eligible. . . . Viewed in favor of Aatrix, as the district court must at the Rule 12(b)(6) stage, the complaint alleges that the claimed combination improves the functioning and operation of the computer itself. These allegations, if accepted as true, contradict the district court's conclusion that the claimed combination was conventional or routine.

Aatrix Software, Inc. v. Green Shades Software, Inc., 882 F.3d 1121, 1127–28 (Fed. Cir. 2018).

The same analysis applies to the District Court's erroneous conclusion that the Glasswall claims "are directed to the application of an abstract idea to a generic computer," Appx011, despite clearly contrary allegations of fact in the Amended Complaint and Exhibits. Instead, "only when there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law" can patent eligibility be determined by a Rule 12(b)(6) motion. *Id.* at 1125.

This Court recognizes that "[l]ike indefiniteness, enablement, or obviousness, whether a claim recites patent eligible subject matter is a question of law which may contain underlying facts." Berkheimer v. HP Inc., 881 F.3d 1360, 1368 (Fed. Cir. 2018) (citing Akzo Nobel Coatings, Inc. v. Dow Chem. Co., 811 F.3d 1334, 1343 (Fed. Cir. 2016)). Moreover, "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact. Any fact, such as this one, that is pertinent to the invalidity conclusion must be proven by clear and convincing evidence." *Id*.

But contrary to the precedent of this Court and the Ninth Circuit, the District Court ignored the

allegations Glasswall's factual in Amended Complaint, oversimplified its view of the claims by drawing an improper analogy to the claims in the Intellectual Ventures case, ignored the teachings of the Glasswall patent specification, and did not consider the claims from the standpoint of a person skilled in the art at the time of the invention. Based on these numerous errors, the District Court concluded that the claims must be directed to an abstraction. It was error for the District Court to proceed in this matter, and that error forms an independent basis to vacate the District Court's Order, and remand for the ordinary course of proceedings.

VII. CONCLUSION

This nation's patent laws were enacted to fulfill the mandate of our Constitution: to promote the progress of science and the useful arts. Glasswall, like many another small company, has invested considerable time, effort and funding to seek the protection of our laws for its innovative solutions to problems with prior art computer security techniques. The Glasswall patent claims at issue in the matter were properly examined, and duly issued under the USPTO Guidelines for assessment of patent eligibility. The patents comprise an important property asset; due care, due process, and proper procedure is required when an accused infringer disputes their validity.

As explained above, the claims of the subject patents are clearly directed to an improvement in computer and network security, and solve problems unique to the computer environment. They encompass patent-eligible subject matter, and the District Court erred both in its procedural approach and in its conclusion of ineligibility. For these reasons, the Judgment and Order of the District Court should be REVERSED.

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Respectfully submitted, By: /s/ Robert J. Carlson Robert J. Carlson Lee & Hayes, PLLC 701 Pike Street, Ste. 1600 Seattle, WA 98101 P: 206-876-6029 Email: bob@leehayes.com

Attorneys for Appellant Glasswall Solutions Limited, Glasswall (IP) Limited

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