United States Court of Appeals
for the Federal Circuit

PACKET INTELLIGENCE LLC,
Plaintiff-Appellee

v.

NETSCOUT SYSTEMS, INC., NETSCOUT SYSTEMS TEXAS, LLC, FKA TEKTRONIX TEXAS, LLC DBA TEKTRONIX COMMUNICATIONS,
Defendants-Appellants

2019-2041

Appeal from the United States District Court
for the Eastern District of Texas in
No. 2:16-cv-00230-JRG, Judge J. Rodney Gilstrap.

Decided: July 14, 2020

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HSU-HOFFMAN, MICHAEL JOHN LYONS, THOMAS Y. NOLAN, Palo Alto, CA; MICHAEL FRANCIS CARR, Milpitas, CA.

Before LOURIE, REYNA, and HUGHES, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge*, LOURIE.

Opinion concurring in part and dissenting in part filed by *Circuit Judge* REYNA.

LOURIE, *Circuit Judge*.

NetScout Systems, Inc. and NetScout Systems Texas, LLC ("NetScout") appeal from the judgment of the U.S. District Court for the Eastern District of Texas after a jury verdict and bench trial that (1) NetScout willfully infringed claims 10 and 17 of U.S. Patent 6,665,725 ("the '725 patent"), claims 1 and 5 of U.S. Patent 6,839,751 ("the '751 patent"), and claims 19 and 20 of U.S. Patent 6,954,789 ("the '789 patent"); (2) no asserted claim is invalid under 35 U.S.C. §§ 101, 102(a), 102(f); (3) Packet Intelligence LLC ("Packet Intelligence") is entitled to $3.5 million in damages for pre-suit infringement; (4) Packet Intelligence is entitled to post-suit damages of $2.25 million; (5) Packet Intelligence is entitled to $2.8 million in enhanced damages; and (6) Packet Intelligence is entitled to an ongoing royalty for future infringement of 1.55%. *Packet Intelligence LLC v. NetScout Sys., Inc.*, No. 2:16-cv-230-JRG, 2018 WL 4286193, at *1 (E.D. Tex. Sept. 7, 2018).

Because the district court erred in denying NetScout's motion for judgment as a matter of law on pre-suit damages, we reverse the district court's pre-suit

damages award and vacate the court's enhancement of that award. We affirm the district court's judgment in all other respects.

BACKGROUND

Packet Intelligence owns the '725, '751, and '789 patents, which teach a method for monitoring packets exchanged over a computer network. A stream of packets between two computers is called a connection flow. '789 patent col. 2 ll. 43–45. Monitoring connection flows cannot account for disjointed sequences of the same flow in a network. *Id.* col. 3 ll. 56–59. The specifications explain that it is more useful to identify and classify "conversational flows," defined as "the sequence of packets that are exchanged in any direction as a result of an activity." *Id.* col. 2 ll. 45–47. Conversational flows provide application-specific views of network traffic and can be used to generate helpful analytics to understand network load and usage. *See* '751 patent col. 3 l. 2—col. 4 l. 11.

The claims of the '725, '751, and '789 patents asserted in the district court describe apparatuses and methods for network monitoring. The '789 patent recites apparatus claims, and claims 19 and 20 were asserted. Claim 19 of '789 patent is drawn to a "packet monitor":

> 19. A packet monitor for examining packets passing through a connection point on a computer network, each packet[] conforming to

one or more protocols, the monitor comprising:

(a) a packet acquisition device coupled to the connection point and configured to receive packets passing through the connection point;

(b) an input buffer memory coupled to and configured to accept a packet from the packet acquisition device;

(c) a parser subsystem coupled to the input buffer memory and including a slicer, the parsing subsystem configured to extract selected portions of the accepted packet and to output a parser record containing the selected portions;

(d) a memory for storing a database comprising none or more flow-entries for previously encountered conversational flows, each flow-entry identified by identifying information stored in the flow-entry;

(e) a lookup engine coupled to the output of the parser subsystem and to the flow-entry memory and configured to lookup whether the particular packet whose parser record is output by the parser subsystem has a matching flow-entry, the looking up using at least some of the selected packet portions and determining if the packet is of an existing flow; and

> (f) a flow insertion engine coupled to the flow-entry memory and to the lookup engine and configured to create a flow-entry in the flow-entry database, the flow-entry including identifying information for future packets to be identified with the new flow-entry, the lookup engine configured such that if the packet is of an existing flow, the monitor classifies the packet as belonging to the found existing flow; and if the packet is of a new flow, the flow insertion engine stores a new flow-entry for the new flow in the flow-entry database, including identifying information for future packets to be identified with the new flow-entry,
>
> wherein the operation of the parser subsystem depends on one or more of the protocols to which the packet conforms.

'789 patent col. 36 l. 31—col. 37 l. 2. Claim 20 of the '789 patent depends from claim 19 and further requires that "each packet passing through the connection point is accepted by the packet buffer memory and examined by the monitor in real time." *Id.* col. 37 ll. 3–6.

In contrast to the apparatus claims of the '789 patent, the '725 and '751 patents recite method claims. The '725 patent claims recite a method for performing protocol-specific operations on a packet through a connection point on a network, comprising receiving a packet and executing protocol specific operations on it, including parsing and ex-traction to determine

whether the packet belongs to a conversational flow. And the '751 patent claims recite methods of analyzing a flow of packets with similar steps. Although the asserted claims include varied language, the parties treat claim 19 of the '789 patent as representative of all of the asserted claims for infringement and invalidity. Thus, we focus on claim 19 in our analysis.

Packet Intelligence asserted claims 19 and 20 of the '789 patent, claims 10 and 17 of the '725 patent, and claims 1 and 5 of the '751 patent against NetScout's "G10" and "GeoBlade" products in the United States District Court for the Eastern District of Texas. The case was tried to a jury on the issues of infringement, damages, willfulness, and invalidity under 35 U.S.C. § 102. The jury found all claims willfully infringed, rejected NetScout's invalidity defenses, and awarded pre-suit and post-suit damages. Following the jury verdict, the district court issued findings of fact and conclusions of law under Fed. R. Civ. P. 52 rejecting NetScout's § 101 invalidity defense. The court also enhanced damages in the amount of $2.8 million and, in accordance with the jury's verdict, awarded an ongoing royalty for post-verdict infringement.

NetScout appealed, and we have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

In reviewing issues tried to a jury, we review the district court's denial of post-trial motions for judgment as a matter of law and for a new trial under the law of the regional circuit—here, the Fifth Circuit. *See*

Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1202 (Fed. Cir. 2010) (citing *Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 563 F.3d 1358, 1370 (Fed. Cir. 2009)). Under Fifth Circuit law, we review *de novo* the denial of a motion for judgment as a matter of law, applying the same legal standard as the district court. *Baisden v. I'm Ready Prods., Inc.*, 693 F.3d 491, 499 (5th Cir. 2012). Judgment as a matter of law should be granted if "a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue." Fed. R. Civ. P. 50(a).

We are "especially deferential" to a jury's verdict, reversing only for lack of substantial evidence. *Baisden*, 693 F.3d at 498–99. "Substantial evidence" is "evidence of such quality and weight that reasonable and fair-minded men in the exercise of impartial judgment might reach different conclusions." *Threlkeld v. Total Petroleum, Inc.*, 211 F.3d 887, 891 (5th Cir. 2000) (quoting *Gaia Techs., Inc. v. Recycled Prods. Corp.*, 175 F.3d 365, 374 (5th Cir. 1999)). We "draw all reasonable inferences in the light most favorable to the verdict and cannot substitute other inferences that we might regard as more reasonable." *E.E.O.C. v. Boh Bros. Constr. Co.*, 731 F.3d 444, 452 (5th Cir. 2013) (citing *Westlake Petrochems., L.L.C. v. United Polychem, Inc.*, 688 F.3d 232, 239 (5th Cir. 2012)). "Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge." *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150–51 (2000) (quoting *Anderson v. Liberty Lobby Inc.*, 477 U.S. 242, 255 (1986)).

On appeal from a bench trial, we review a district court's conclusions of law *de novo* and its findings of fact for clear error. *Braintree Labs., Inc. v. Novel Labs., Inc.*, 749 F.3d 1349, 1358 (Fed. Cir. 2014) (citing *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1123 (Fed. Cir. 2000)). "A factual finding is clearly erroneous when, despite some supporting evidence, we are left with a definite and firm conviction that the district court was in error." *Alcon Research Ltd. v. Barr Labs., Inc.*, 745 F.3d 1180, 1186 (Fed. Cir. 2014) (citing *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1289 (Fed. Cir. 2006)). "The burden of overcoming the district court's factual findings is, as it should be, a heavy one." *Polaroid Corp. v. Eastman Kodak Co.*, 789 F.2d 1556, 1559 (Fed. Cir. 1986). "Where there are two permissible views of the evidence, the fact-finder's choice between them cannot be clearly erroneous." *Anderson v. City of Bessemer City*, 470 U.S. 564, 574 (1985) (citing *United States v. Yellow Cab Co.*, 338 U.S. 338, 342 (1949)).

In this appeal, NetScout challenges the district court's judgment on the issues of infringement, invalidity under § 101, invalidity under § 102, pre-suit damages, and willfulness. We address each issue in turn.

I. Infringement

We first address NetScout's claim that it did not infringe the asserted patents. An infringement analysis requires two steps. *Clare v. Chrysler Grp. LLC*, 819 F.3d 1323, 1326 (Fed. Cir. 2016). First, the court construes the asserted claims. Claim construction is a

question of law that may involve underlying factual questions. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 332 (2015). Second, the court determines whether the accused product meets each limitation of the claim as construed, which is a question of fact. *Wright Med. Tech., Inc. v. Osteonics Corp.*, 122 F.3d 1440, 1443 (Fed. Cir. 1997).

NetScout's two-step theory concerning why it is not an infringer relies entirely on claim 19's memory limitation. First, NetScout argues that the limitation *requires* correlating connection flows into conversational flows. Appellant's Br. 36. Then, under NetScout's understanding of the claim language, NetScout submits that its products cannot infringe because no accused products meet that limitation. In NetScout's view, the record establishes that the accused products track connection flows but never join them together.

Packet Intelligence responds that it presented thorough evidence supporting the jury's infringement verdict. In response to NetScout's claim construction argument, Packet Intelligence counters that the claims do not require joining flows into a single conversational flow.

We first agree with Packet Intelligence that the claims do not require the joining of connection flows into conversational flows. The term "conversational flow" appears in claim 19's memory limitation: "a memory for storing a database comprising none or more flow-entries for previously encountered conversational flows, each flow-entry identified by identifying

information stored in the flow entry." '789 patent col. 36 ll. 45–48. Contrary to NetScout's argument, however, a limitation requiring memory for *storing* flow entries for previously encountered conversational flows does not require the added action of correlating connection flow entries into conversational flows.

Even if NetScout were correct that the claims require correlating connection flows into conversational flows, however, the jury's infringement verdict is supported by substantial evidence. Dr. Almeroth testified that the accused products contain a "flow state block" ("FSB"), "corresponding" to source code "Fsb.c." J.A. 1265:1–1266:20. According to Dr. Almeroth, the FSB contains flow entries and the information in the flow record can be used to correlate or associate flow entries into conversational flows. J.A. 1265:1–10; 1266:25–1267:2. This testimony alone is substantial evidence supporting the jury's verdict.

As further confirmation that the accused products infringe, Dr. Almeroth also provided an "example" of how NetScout's products use the information in memory to create a "key performance index" in a NetScout white paper titled "Subscriber Web Page Download Time Estimation in Passive Monitoring Systems." J.A. 1267:8–1268:11. Dr. Almeroth testified that the feature "demonstrate[d] that information in the flow record is sufficient to identify the flow-entry and also to allow it to associate with previously-encountered conversation flows." *Id.*

Given the evidence presented to the jury on claim 19's memory limitation and because NetScout has challenged no other aspect of the jury's infringement finding, we cannot conclude that the jury's verdict lacked substantial evidence.

II. Patent Eligibility

NetScout claims that the patents it is accused of infringing cover ineligible subject matter. Patent eligibility under § 101 "is ultimately an issue of law that we review *de novo*," *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018) (citing *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017)), although it may involve underlying fact findings, *id*. (citing *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016)). Under 35 U.S.C. § 101, "[w]hoever 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." In evaluating eligibility, we first determine whether the claims at issue are directed to a patent-ineligible concept. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77 (2012)). If so, we then "examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Id*. at 221 (quoting *Mayo*, 566 U.S. at 72–73, 78).

The parties submitted the issue of eligibility to be tried to the bench, and the district court issued findings of fact and conclusions of law under Fed. R. Civ. P. 52. *Packet Intelligence LLC v. NetScout Sys., Inc.*, No. 2:16-cv-230-JRG (E.D. Tex. Feb. 14, 2018), ECF No. 298 ("*Eligibility Decision*"). The parties agree that claim 19 is representative of the asserted claims, so we begin by reviewing the district court's analysis for this claim.

The district court first made a series of factual findings about the claimed inventions' advantages over the prior art. According to the district court, to measure the amount or type of information being transmitted by a particular application or protocol, a network monitor must measure "*all* of the connection flows through which that application or protocol transmits packets." *Id.* slip op. at 5. The court found that prior art monitors could not identify disjointed connection flows as belonging to the same conversational flow. *Id.* slip. op. at 9.

The patents addressed this "problem" in the art by parsing packets to extract information that can be used to associate packets with single conversational flows, which correspond to particular applications or protocols. *Id.* slip op. at 6. A "parser subsystem 'parses the packet and determines the protocol types and associated headers for each protocol layer,' 'extracts characteristic portions (signature information) from the packet,' and builds a 'unique flow signature' (also called a "key")' based on the packet." *Id.* slip op. at 7 (citing first '789 patent col. 12 l. 19—col. 13 l.28; then *id.* col. 33 l. 30—col. 34 l. 33). An "analyzer subsystem"

then "determines whether the packet, based on this signature or key, has a corresponding entry in the flow-entry database." *Id.* (citing '789 patent col. 13 l. 60—col. 16 l. 52). If there is a corresponding entry, the flow-entry is updated, and additional operations may be performed to "fully characterize" the associated conversational flow. *Id*. (citing '789 patent col. 14 ll. 54–61). If there is no corresponding entry, a new entry is created and "protocol and state identification process 318 further determines * * * the protocols" and part of the state sequence the packet belongs to. *Id.* slip. op. at 8 (citing '789 patent col. 14 ll. 44–53).

According to the district court, prior art monitors could not identify disjointed connection flows as belonging to the same conversational flow, but the claimed invention could provide a granular, nuanced, and useful classification of network traffic. *Id.* slip op. at 10. The court found that the metrics made possible by the recited invention improved quality and performance of traffic flows. *Id.* slip. op. at 11. Specifically, the monitors had an improved ability to classify and diagnose network congestion while providing increased network visibility to identify intrusions and malicious attacks. *Id.*

With this factual background, the court applied the *Alice* framework. First, the court rejected NetScout's argument that claim 19 is directed to the collection, comparison, and classification of information. The court instead held that the claim was directed to "solving a discrete technical problem: relating disjointed connection flows to each other." *Id.* slip. op. at

30. The court determined that the claim was directed to "specific technological solutions, such as identifying and refining a conversational flow so that different connection flows can be associated with each other and ultimately an underlying application or protocol." *Id.* At step one, the district court also rejected NetScout's argument that the claims are directed to an abstract idea because they do not explain how to determine whether packets belong to a conversational flow. According to the district court, NetScout's argument focused on the claims in isolation instead of the claims as read in light of the specification. In the court's view, the claims and specification "[t]aken together * * * teach how to identify that certain packets belong to the same conversational flow," especially in light of NetScout's expert's testimony that the patents describe how one would identify and classify different connections into a conversational flow. *Id.* slip op. at 32.

Despite finding that the claims were not directed to an abstract idea, the court proceeded to step two of the *Alice* analysis, holding that NetScout failed to show that the combination of elements in the claims would have been regarded as conventional, routine, or well-known by a skilled artisan at the time of the invention.

In this appeal, NetScout maintains that the claims are directed to the abstract idea of collecting, comparing, and classifying packet information. NetScout submits that, even if the claims are directed to a technical problem—the need to correlate disjointed connection flows—they are not directed to a specific

implementation of a solution of that problem. According to NetScout, the district court erred by considering the specification's teachings of how to identify packets belonging to the same conversational flow. NetScout then argues that, at step two, the claims lack an inventive concept because the recited components in the claim are standard, off-the-shelf components, used in every probe.

Packet Intelligence counters that the district court correctly held that the claims are not directed to an unpatentable abstract idea. Packet Intelligence faults NetScout for oversimplifying the claims and maintains that the district court was correct to consider the specification in its analysis. Packet Intelligence further submits that the claims are directed to a technical problem and, as the district court found, recite an unconventional technological solution, constructing conversational flows that associate connection flows with each other and ultimately specific applications or protocols. Even if the claims were directed to an abstract idea, however, Packet Intelligence argues that NetScout has failed to show clear error in the district court's fact findings at step two that the invention's components were not routine or conventional.

We agree with Packet Intelligence that claim 19 is not directed to an abstract idea. In our eligibility analysis, we consider the claim as a whole, *Diamond v. Diehr*, 450 U.S. 175, 188 (1981), and read it in light of the specification, *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1011 (Fed. Cir. 2018). We have recognized that "software-based innovations can make

'non-abstract improvements to computer technology' and be deemed patent-eligible subject matter at step 1." *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1304 (Fed. Cir. 2018) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016)). And at step one, we consider whether the "focus of the claims is on [a] specific asserted improvement in computer capabilities * * * or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *Enfish*, 822 F.3d at 1335–36. In *Enfish*, for example, we held that a claim to a self-referential table was not directed to an abstract idea because the table embodies an improvement in the way computers operate. *Id.* In reaching that conclusion, we explained that the specification taught that the self-referential table functioned differently from conventional databases, providing increased flexibility, faster search times, and smaller memory requirements. *Id.* at 1337.

Likewise, in *SRI International, Inc. v. Cisco Systems, Inc.*, 930 F.3d 1295 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 1108 (2020) (Mem.), we held claims drawn to a method of hierarchical computer network monitoring to be patent-eligible. The *SRI* claims recited a series of steps, including "deploying" network monitors, which detect "suspicious network activity based on analysis of network traffic data," and generate and integrate "reports of * * * suspicious activity." *Id.* at 1301. At step one, we held that the claims were not directed to an abstract idea because they were "necessarily rooted in computer technology in order to solve

a specific problem in the realm of computer networks." *Id*. at 1303. We recognized that the claims were not using a computer as a tool but, instead, recited a specific technique for improving computer network security. In informing our understanding of the technology and its relationship to the art, we relied on statements in the specification that the claimed invention purported to solve weaknesses in the prior art by providing a framework for recognition of global threats to interdomain connectivity. As relevant here, the *SRI* claims recited general steps for network monitoring with minimal detail present in the claim limitations themselves.

Like the *SRI* claims, claim 19 purports to meet a challenge unique to computer networks, identifying disjointed connection flows in a network environment. The claim solves a technological problem by identifying and refining a conversational flow such that different connection flows can be associated with each other and ultimately with an underlying application or protocol. The claims detail how this is achieved in several steps. The claimed "parser subsystem" extracts information from the packet. This packet information is checked against "flow-entry memory" by the claimed "lookup engine." The flow insertion engine coupled to the memory and the lookup engine determines whether the packet matches an entry in the flow-entry database. If there is a match, the flow insertion engine updates the matching entry with data from the new packet. If there is no match, the engine creates a new entry.

The asserted patents' specifications make clear that the claimed invention presented a technological solution to a technological problem. The specifications explain that known network monitors were unable to identify disjointed connection flows to each other, and the focus of the claims is a specific improvement in computer technology: a more granular, nuanced, and useful classification of network traffic. *See, e.g.*, '751 patent col. 2 ll. 53–56; col. 3 l. 2—col. 4 l. 6. The specifications likewise explain how the elements recited in the claims refer to specific technological features functioning together to provide that granular, nuanced, and useful classification of network traffic, rather than an abstract result. *See, e.g.*, '789 patent col. 23 l. 38—col. 27 l. 50 (describing the technological implementation of the lookup engine and flow insertion engine as used in the claims); *see also* '725 patent col. 10 l. 3—col. 13 l. 4.

In its argument regarding step one of the *Alice* analysis, NetScout argues that *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329 (Fed. Cir. 2017), limits our consideration of the specification's concrete embodiments, including Figure 2. But we need not rely on the specific data disclosed in Figure 2 of the specification to determine that claim 19 is not directed to an abstract idea. Regardless, *Two-Way Media* does not support NetScout's view. In *Two-Way Media*, this court commented that at step *two*, the claim, not the specification, must include an inventive concept. *Id.* at 1338 ("The main problem that Two-Way Media cannot overcome is that the *claim*—as opposed

to something purportedly described in the specification—is missing an inventive concept."). Here, because we have concluded that the claims are not directed to an abstract idea, we do not reach step two. *SRI*, 930 F.3d at 1304 (citing *Enfish*, 822 F.3d at 1339). Because the parties treat claim 19 as representative of all asserted claims, we therefore conclude that all asserted claims are patent-eligible.

III. Invalidity under § 102

At trial, NetScout presented the jury with its theory that the asserted patents are invalid under § 102(f) for failure to list the RMON Working Group as inventors. Specifically, NetScout argued that the RMON Working Group devised the "Track Sessions" probe functionality that relates connection flows into conversational flows as claimed in the patents. Track Sessions allows probe software to join together first connections starting on well-known ports with second connections that are on dynamically assigned ports by remembering the port assignments. Version 4.5 of Track Sessions was available in October 1998, before the June 30, 1999 priority date of the asserted patents.

To support its inventorship theory, NetScout relied on testimony from its expert, Mr. Waldbusser, who maintained that the Track Sessions Probe as implemented could correlate packets associated with an activity, even though those packets were exchanged via different connection flows with different port numbers. NetScout also points to testimony from a named

inventor of the asserted patents, Mr. Dietz, who stated that he was aware of the RMON Working Group's publications, including Track Sessions. NetScout also submits that the claims are at least anticipated by the Track Sessions probe.

Packet Intelligence contends that the jury's rejection of NetScout's § 102 challenge is supported by substantial evidence. Packet Intelligence faults Mr. Waldbusser for failing to consider the limitations of claim 19, instead focusing more generally on "conversational flows," and points to Dr. Almeroth's testimony that Track Sessions counts all of the packets in a conversational flow as a single flow entry, as opposed to correlating several connection flows. Packet Intelligence also cites Dr. Almeroth's testimony that Track Sessions fails to provide visibility into application content and is limited to providing network layer information.

The district court rejected NetScout's motion for judgment as a matter of law on its inventorship and anticipation defenses, holding that the jury's verdict is supported by substantial evidence. In support, the court cited Dr. Almeroth's testimony that Mr. Waldbusser failed to analyze the claim language as written and that the NetScout probe did not associate connection flows but, instead, replaced one flow with another.

We agree with the district court that the jury's verdict is supported by substantial evidence. While NetScout asks us to accept its interpretation of the

record, the jury was permitted to weigh Dr. Almeroth's testimony over that of Mr. Waldbusser. *Reeves*, 530 U.S. at 150–51. Specifically, Dr. Almeroth testified that Track Sessions attributes all packets of a protocol that starts sessions on well-known ports or sockets and then transfers them to dynamically assigned ports or sockets thereafter. In Dr. Almeroth's view, this generates one flow entry, which is different from a conversational flow that relates different independent flows to each other. J.A. 1924. Dr. Almeroth further testified that Track Sessions requires knowledge of the port number to determine an application identity and does not work unless the initial port is well known. J.A. 1925. According to Dr. Almeroth, Track Sessions describes "just having one flow-entry that's changed, as opposed to maintaining existing flow-entries, creating new flow-entries, and then correlating and relating those flow-entries together to create conversational flows," instead providing for "just swap[ping] out the port number and maintain[ing] one flow-entry." J.A. 1940. Dr. Almeroth also disagreed with Mr. Waldbusser that Track Sessions had visibility into application data itself and faulted Mr. Waldbusser for combining source code from two references—Versions 4.5.0 and 4.5.3 of Track Sessions—in his anticipation analysis. The jury was entitled to credit Dr. Almeroth's testimony over Mr. Waldbusser's, and, drawing all inferences in favor of the jury verdict and accepting the jury's credibility determinations, the jury's verdict on NetScout's inventorship defense is supported by substantial evidence.

Likewise, the jury was permitted to credit Dr. Almeroth's testimony that Track Sessions fails to meet claim 19's memory limitation, and the jury's verdict regarding anticipation is also accordingly supported by substantial evidence.

NetScout also appears to argue that the district court's acceptance of Dr. Almeroth's testimony regarding separate flow entries for a single conversational flow is a new issue of claim construction. But a review of the trial transcript reveals that NetScout failed to object during the challenged portion of Dr. Almeroth's testimony, including during his testimony regarding his understanding of what the claims require. Contrary to NetScout's view, if it understood Dr. Almeroth to be testifying inconsistently with the district court's claim construction order or testifying to mate-rial beyond of the scope of his report, NetScout was required to object *at trial* to preserve its arguments for judgment as a matter of law. And NetScout's failure to object amounts to waiver of these issues. *See, e.g.*, *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1321 (Fed. Cir. 2003) ("[W]here the parties and the district court elect to provide the jury only with the claim language itself, and do not provide an interpretation of the language in the light of the specification and the prosecution history, it is too late at the JMOL stage to argue for or adopt a new and more detailed interpretation of the claim language and test the jury verdict by that new and more detailed interpretation"); *Solvay S.A. v. Honeywell Int'l Inc.*, 742 F.3d 998, 1004 (Fed. Cir. 2014) (holding claim construction argument waived

when party failed to request modification or clarification of the claim construction when the issue surfaced at trial). Thus, our analysis is confined to whether substantial evidence supports the jury's verdict under the undisputed claim construction at trial, *Hewlett-Packard*, 340 F.3d at 1320, and we conclude that it does.

IV. Pre-suit damages

NetScout asserts that is not subject to pre-suit damages because Packet Intelligence's licensees failed to properly mark their patent-practicing products. Before filing the instant suit, Packet Intelligence licensed the asserted patents to Exar, Cisco, and Huawei, which were alleged to have produced unmarked, patent-practicing products. The '789 patent is subject to the marking requirement of 35 U.S.C. § 287(a), and the availability of pre-suit damages for the '789 patent hinges on whether Exar's MeterFlow product was appropriately marked. If pre-suit damages cannot be supported for the '789 patent, Packet Intelligence submits that we can uphold the jury's damages award based on infringement of the '725 and '751 patents, method patents that are not subject to the marking requirement.

A. Marking

When the district court charged the jury in this case, this court had not yet ruled on which party bears the burden of proving compliance with the marking statute. After the verdict, we held that an alleged

infringer "bears an initial burden of production to articulate the products it believes are unmarked 'patented articles' subject to [the marking requirement]" in *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1368 (Fed. Cir. 2017). We held that the initial burden was a "low bar" and that the alleged infringer needed only to put the patentee on notice that certain licensees sold specific unmarked products that the alleged infringer believes practice the patent. *Id.* The burden then fell on the patentee to prove that the identified products do not practice the patent-at-issue. *Id.*

Here, the district court's jury instruction is in tension with the later decision in *Arctic Cat*, as it appears to place the burden on NetScout to show that the Exar, Huawei, and Cisco products practice the '789 patent:

> Any damages for infringement of the '789 patent commence on the date that NetScout has both infringed and been notified of the alleged infringement of the '789 patent. In considering if NetScout has been notified of the alleged infringement, *NetScout must first show the existence of a patented article. A patented article is a licensed product that practices one or more claims of the '789 patent. If NetScout does not show the existence of a patented article, Packet Intelligence is permitted to collect damages going six years before the filing of the complaint in this case for the '789 patent.*
>
> However, if you find that Packet Intelligence's licensed products include the claimed invention of the '789 patent, you must determine

> whether Packet Intelligence required that those products be marked with the '789 patent number* * * *
>
> Packet Intelligence has the burden of establishing that it substantially complied with the marking requirement. This means Packet Intelligence must show that it made reasonable efforts to ensure that its licensees who made, offered for sale, or sold products under the '789 patent marked the products. If you find that Packet Intelligence has not made reasonable efforts to ensure that its licensees who made, offered for sale, or sold products under the '789 patent marked the products, then the parties agree that NetScout first received actual notice of the '789 patent and that actual notice was on March 15, 2016, and any damages for the '789 patent can only begin on that date.

Transcript of Jury Trial at 47:11–48:20, *Packet Intelligence LLC v. NetScout Sys.*, No. 2:16-cv-230-JRG (E.D. Tex. Oct. 13, 2017), ECF No. 252 (emphasis added). After receiving this instruction, the jury rejected NetScout's marking defense, awarding Packet Intelligence $3,500,000 in damages to compensate for pre-suit infringement. Verdict Form, *Packet Intelligence LLC v. NetScout Sys., Inc.*, No. 2:16-cv-230-JRG (Oct. 13, 2017), ECF No. 237.

NetScout moved for judgment as a matter of law, arguing that Packet Intelligence failed to present any evidence to the jury that the Exar, Huawei, and Cisco products do not practice the patent or were not

properly marked, but the district court denied NetScout's motion. The district court found that the jury had a substantial evidentiary basis to conclude that Packet Intelligence was not obligated to mark the MeterFlow products. *Packet Intelligence LLC v. NetScout Sys., Inc.*, 2019 WL 2375218, at *5 (E.D. Tex. June 5, 2019). We will consider Exar's MeterFlow product alone, as it is dispositive in our analysis.

NetScout argues that Packet Intelligence is not entitled to pre-suit damages for the '789 patent because it failed to prove that MeterFlow, an unmarked product, did not practice the '789 patent. Specifically, NetScout faults the court for relying on Mr. Dietz's testimony because he testified about MeterWorks, not MeterFlow, and because he did not testify that the MeterFlow product did not practice the patent.

In response to NetScout's argument, Packet Intelligence appears to argue that NetScout bears the burden of establishing that the MeterFlow products practiced any claims of the '789 patent because it failed to object to the district court's jury instruction or seek a new trial based on *Arctic Cat*.

As a preliminary matter, we disagree that the failure to object decides this matter. We are bound by the law, not by the jury charge, even if the charge was not objected to. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 975 n.5 (Fed. Cir. 1995) (en banc). And NetScout's failure to object to the district court's jury instruction does not render the instruction law of the case for evaluating the sufficiency of the evidence.

Boyle v. United Techs. Corp., 487 U.S. 500, 514 (1988) (citing *City of St. Louis v. Praprotnik*, 485 U.S. 112, 120 (1988) (plurality opinion)).

Under the standard articulated in *Arctic Cat*, NetScout bore the preliminary burden of identifying unmarked products that it believed practice the '789 patent. It is undisputed that NetScout adequately identified Exar's MeterFlow product. Packet Intelligence then bore the burden of proving that MeterFlow did not practice at least one claim of the '789 patent. *See Arctic Cat*, 876 F.3d at 1369.

Packet Intelligence submits that it met its burden in two ways: (1) by showing that the MeterFlow product was mentioned in a provisional application that the '789 patent claims priority from and that the inventors removed that reference before filing non-provisional applications, and (2) with testimony from Mr. Dietz, a named inventor, who stated that MeterWorks, a different product, did not embody his invention. This evidence is, however, insufficient to carry Packet Intelligence's burden of *proving* that the MeterFlow product does not practice the '789 patent. The fact that the inventors chose to cease referencing MeterFlow in later patent applications does not support the inference that MeterFlow does not practice the patent. Mr. Dietz testified that the reference to MeterFlow was removed because MeterFlow was software that "evolved," and using the term would have suggested that past versions of the software using the "marketing term" MeterFlow "were the current version." J.A. 1122:15–24. Crediting Mr. Dietz's testimony, it appears that the

exclusion of MeterFlow was to prevent "confusion" about an evolving product, J.A. 1122:21–22, not to comment on whether MeterFlow practiced the '789 patent.

Packet Intelligence also relies on Mr. Dietz's testimony that MeterWorks did not embody the invention. But Mr. Dietz was not qualified as an expert in this case and did not provide an infringement opinion regarding the MeterFlow product. Mr. Dietz testified to the ultimate question of noninfringement about a *different* Exar product, MeterWorks. Even if Mr. Dietz had testified about the correct product and was permitted to offer an expert opinion on whether MeterFlow practiced the asserted claims, his conclusory testimony failed to address what claim limitations were purportedly missing from the product and would have been insufficient to carry Packet Intelligence's burden of proving that MeterFlow did not practice the '789 patent.

Because Packet Intelligence failed to present substantial evidence to the jury that matched the limitations in any claim of the '789 patent to the features of the MeterFlow product, NetScout is entitled to judgment as a matter of law that it is not liable for pre-suit damages based on infringement of the '789 patent.

B. Method Patents

In an attempt to preserve the jury verdict, Packet Intelligence argues that the pre-suit damages award can be supported by evidence of direct infringement of the '725 and '751 patent. The district court agreed

with Packet Intelligence, relying on Dr. Almeroth's testimony that the NetScout products were used for testing and in the field, Mr. Marwaha's testimony that NetScout technicians implement the accused products at customer sites, and Mr. Lindahl's testimony that NetScout customers pay NetScout to use its equipment to monitor their networks and do analyses or troubleshooting. The court also cited Mr. Bergman's testimony that these activities drive the sales of products and revenue to NetScout, which supported that NetScout's own use of the claimed methods drove the U.S. sales of the accused products and justified pre-suit damages for infringement of the method patents.

NetScout maintains that its internal use and testing of allegedly infringing methods cannot support pre-suit damages under these patents. According to NetScout, there was no evidence of specific instances of NetScout's use of the accused products, and the district court relied on evidence that was too general regarding field use. Packet Intelligence counters that there was ample evidence presented at trial that NetScout used its own products to drive the sales of products and revenue to NetScout and that this activity contributed to the product sales that comprise the royalty base.

We disagree with Packet Intelligence. Method claims are "not directly infringed by the mere sale of an apparatus capable of performing the claimed process." *Joy Techs., Inc. v. Flakt, Inc.*, 6 F.3d 770, 773 (Fed. Cir. 1993). Therefore, Packet Intelligence cannot simply count sales of the software accused of infringing

the '789 patent as sales of the method claimed in the '725 and '751 patents. In-stead, Packet Intelligence was required to produce evidence that the claimed method was actually used and hence infringed. Packet Intelligence advanced a theory that NetScout's internal testing, customer support, and customer training was pre-suit activity infringing the method patents and thus supporting damages. But there is no evidence supporting damages caused by or resulting from these pre-suit activities. Mr. Bergman, Packet Intelligence's damages expert, applied a calculated reasonable royalty to revenue from NetScout's *sales* of the GeoBlade and GeoProbe G10 products—occurring both before and after the suit was filed. The damages base was not tailored to any alleged internal use of the claimed methods.

The district court held that the jury had a sufficient basis to find that NetScout's internal use of the claimed methods "drove U.S. sales of the Accused Products and justified an award of pre-suit damages for the '725 and '751 method patents." *Packet Intelligence LLC v. NetScout Sys., Inc.*, 2019 WL 2375218, at *7 (E.D. Tex. June 5, 2019). In concluding that the jury had a reasonable basis for its pre-suit damages award, the court relied on its instruction to the jury that it "may consider 'the effect of selling the patented specialty in promoting sales of other products of the licensee, the existing value of the invention to the licensee as a generator of sales of its non-patented items, and the extent of such derivative or convoyed sales.'" *Id.* But Mr. Bergman did not present a damages theory to the

jury based on derivative or convoyed sales. Mr. Bergman did testify that some non-accused NetScout products would be degraded if NetScout did not have access to the accused technology, but after taking those products into account, Mr. Bergman only concluded "that the reasonable royalty in this case * * * would be three and a half percent." J.A. 1439–40. At no point did Mr. Bergman opine that non-accused products should be included in the royalty base, and Packet Intelligence's current damages theory is wholly unsupported by the record.

Even if NetScout's own use of the patented method drove sales for the GeoBlade and GeoProbe G10 products, that fact would only justify instances of internal use being counted as part of the royalty base. Packet Intelligence is barred from recovering damages for pre-suit sales of the GeoBlade and GeoProbe G10 products because it failed to comply with the marking requirement. It cannot circumvent § 287 and include those products in its royalty base simply by arguing that NetScout's infringement of related method claims drove sales. Because neither the record nor the law supports Packet Intelligence's recovery of pre-suit damages for any of the asserted patents, NetScout is entitled to judgment as a matter of law on this issue.

V. Willfulness

Finally, NetScout appeals the willfulness judgment. The jury returned a verdict finding that NetScout's infringement was willful. NetScout moved for

judgment as a matter of law on willfulness, but the district court denied its motion. NetScout maintains that its infringement was not willful, challenging the jury's evaluation of the facts. Specifically, NetScout contests that its executives' lack of knowledge regarding the patents and continued infringing activity after this suit was filed cannot support willfulness. Packet Intelligence responds that the jury's willfulness verdict was supported by substantial evidence and should be accorded deference.

We agree with Packet Intelligence. At trial, NetScout's corporate representative, Mr. Kenedi, admitted that he did not read the patents but still testified that he believed Mr. Dietz lied and stole the claimed inventions. NetScout's CEO, Mr. Singhal, testified that he could not recall ever reviewing the asserted patents and confirmed that, even though NetScout was phasing out the accused products, he would sell one to a customer if the product was demanded. The jury was permitted to credit this evidence and to draw the inference that NetScout willfully infringed Packet Intelligence's patent rights. In reviewing a motion for judgment as a matter of law, we draw all reasonable inferences most favorable to the verdict, and, under this standard of review, we conclude that the jury's willfulness verdict is supported by substantial evidence.

CONCLUSION

We have considered the parties' remaining arguments but find them unpersuasive. Accordingly, the judgment of the district court is affirmed as to infringement, validity, and willfulness. The district court's award of pre-suit damages is reversed, and any enhancement thereof is vacated.

AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART, AND REMANDED

COSTS

No costs.

REYNA, *Circuit Judge*, concurring-in-part, dissenting-in-part.

I join the majority's reasoning and conclusions as to all issues except the patentability of the asserted claims under § 101. In my view, the claims are directed to the abstract idea of identifying data packets as belonging to "conversational flows" rather than discrete "connection flows." While the claimed implementations of this idea may ultimately contain inventive concepts that save the claims, it was clear error for the district court to base its finding of inventiveness on the abstract idea itself and its attendant benefits. Accordingly, I would vacate the district court's judgment of patent eligibility and remand for the court to make factual findings as to whether the components and operations actually recited in each claim amount to more

than what was merely routine and conventional in the art.

I

In assessing the subject matter eligibility of patent claims under § 101, we first begin at Step 1 of *Alice* by determining whether the claims at issue are "directed to" a patent-ineligible concept. *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 218 (2014). To do so, we look to "the focus of the claimed advance over the prior art" to determine if the character of the claim as a whole, considered in light of the specification, is directed to excluded subject matter. *Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019); *see also Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017) (quoting *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016)); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

Here, claim 19 of U.S. Patent No. 6,954,789 (the "'789 patent"), which the parties treat as representative of the asserted claims, recites a "packet monitor for examining packets" with various components. The components are configured to extract information from passing packets; store "flow-entries for previously encountered conversational flows," each "identified by identifying information"; compare information extracted from each passing packet to flow-entries in the flow-entry memory; and either classify the packet as

belonging to an existing flow if there is a match, or create a new flow-entry if there is not.

The specification makes clear that "[w]hat distinguishes this invention from prior art network monitors is that it has the ability to recognize disjointed flows as belonging to the same conversational flow." '789 patent, col. 3 ll. 56–59. That term, "conversational flow," is one coined by the inventors to describe "the sequence of packets that are exchanged in any direction as a result of any activity." *Id.* at col. 2 ll. 45–47. The specification contrasts this type of flow with the "connection flows" that were tracked by prior art monitors, which merely represented "all packets involved with a single connection." *Id.* at col. 2 ll. 42–50. In other words, the asserted advance over the prior art is the classification of data packets according to the flow of data associated with given activities rather than potentially disjointed exchanges transmitted over individual connections.

The majority characterizes this as a "technological solution to a technological problem" in the form of a "more granular, nuanced, and useful classification of network traffic." Slip Op. at 1310. On that basis, the majority concludes that the asserted claims are not directed to an abstract idea at *Alice* Step 1. But if the technological problem at issue was that prior art monitors could not recognize packets from multiple connections as belonging to the same conversational flow, then the "solution" of classifying network traffic according to conversational flows rather than connection flows is conceptual, not technological, in the absence of specific means by which that classification is achieved.

Here, claim 19 recites computer components that perform the operations of extracting, storing, and comparing unspecified "identifying information" in order to "classify" data packets by flow. Other than the bare statement that the flow entries stored in the database are "for previously encountered conversational flows," the claimed operations describe only a general method of sorting data packets according to *any* flow, not a specific means of sorting packets by *conversational flow*. Crucially, the claim does not recite how the individual packets are actually "identified" as belonging to a conversational flow beyond the functional requirement that "*identifying* information" is used. '789 patent, col. 36 l. 31—col. 37 l. 2. Yet, the specification ex-plains that to implement the invention, the information necessary for identifying a conversational flow must be "adaptively determined" through an iterative process in which increasingly specific "signatures" are generated through analysis of patterns in the sequence of passing packets. *Id*. at col. 4 ll. 10–13; col. 10 l. 16—col. 11 l. 34. In the preferred embodiment, the pattern analysis process is governed by a "parsing-pattern-structures and extraction-operations database" compiled from "protocol description language files" that describe "patterns and states of all protocols that [c]an occur at any layer, including * * * what information to extract for the purpose of identifying a flow, and ultimately, applications and services." *See id*. at col. 11 l. 66—col. 12 l. 62. None of these processes or components are recited in claim 19, and the claim elements have not been construed as limited to the structures and processes disclosed in the embodiments.

Standing alone, the components and operations actually recited in the claims do not provide "the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it." *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018); *see also McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (explaining that courts must "look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery"). In the absence of specific technological means for achieving the desired results, we have described the mere collection, analysis, and display of information as falling within the realm of abstract ideas. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *see also Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (finding a claim directed to an abstract idea when it "requires the functional results of 'converting,' 'routing,' 'con-trolling,' 'monitoring,' and 'accumulating records,' but does not sufficiently describe how to achieve these results in a non-abstract way").

The absence of a concrete technological solution in claim 19 distinguishes it from the claims at issue in *SRI*. *See SRI Int'l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1300 (Fed. Cir. 2019). There, the patents addressed the problem of detecting hackers and network intruders who simultaneously attempt to access multiple computers in a network without triggering the

alert threshold for any single security monitor at any given location. *Id.* The solution, and the claimed advance over the prior art, was to deploy and integrate reports from *multiple* network monitors that each analyze specific types of data on the network. *Id*. at 1303. This specific technique was expressly recited in the claims. *See id.* at 1301 (reciting "*deploying a plurality of network monitors* in the enterprise network" and "detecting, by the network monitors, suspicious network activity *based on analysis of network traffic data selected from one or more of the following categories* [specified in the claim]" and "*integrating the reports of suspicious activity, by one or more hierarchical monitors*" (quoting U.S. Patent No. 6,711,615, col. 15 ll. 2–21) (emphasis added)). The claims in *SRI* disclose how "detecting" by the claimed plurality of the monitors is achieved. In this case, the claims do not disclose how the desired result of "identif[ying]" packets as belonging to a conversational flow is achieved.

In asserting that the claims are nonetheless directed to a specific technological solution, the district court determined that "[t]aken together, the claims *and the specification* do teach how to identify that certain packets belong to the same conversational flow." J.A. 390 (CL59) (emphasis added). But the relevant inquiry for § 101 purposes is not whether the patent as a whole *teaches* a concrete means for achieving an abstract result, but whether such a concrete means is *claimed*. While a claim must be read "in light of the specification" to understand what is claimed and the relative significance of the claimed components, *see*,

e.g. Enfish, 822 F.3d at 1335, a court cannot rely on unclaimed details in the specification as the "focus" of the claim for § 101 purposes. Our case law is clear that the § 101 inquiry must be based "on the language of the Asserted Claims themselves, and the specification cannot be used to import details from the specification if those details are not claimed." *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769–70 (Fed. Cir. 2019) (citing *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016)). Indeed, this focus on the claimed subject matter distinguishes the § 101 inquiry from the enablement and written description inquiries under § 112, which focus on the specification as a whole. Contrary to the majority's suggestion, Slip Op. at 1310, this principle is not limited solely to the *Alice* Step 2 inquiry. *See Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 939 F.3d 1355, 1363 (Fed. Cir. 2019) ("We have repeatedly held that features that are not claimed are irrelevant as to step 1 or step 2 of the *Mayo/Alice* analysis."). Indeed, it would be an anomalous result if we were not permitted to look to unclaimed details at *Alice* Step 2 in determining whether an asserted claim recites an inventive concept, but could use the same details as the "focus" of the claim at *Alice* Step 1 to avoid reaching Step 2.

For these reasons, I believe the asserted claims fail at *Alice* Step 1 and must be examined at *Alice* Step 2.

II

The majority's opinion does not reach Step 2 of the *Alice* framework because it concludes that the claims are not directed to an abstract idea at Step 1. Because I conclude that the asserted claims are directed to an abstract idea at Step 1, and the district court's analysis at Step 2 was flawed, I would vacate and remand for the district court to conduct the appropriate analysis as set forth below.

At *Alice* Step 2, the court must examine the elements of each claim, both individually and as an ordered combination, to determine whether it contains an "inventive concept," beyond what was "well-understood," "routine," and "conventional," that transforms the nature of the claim into a patent eligible application. *Alice*, 573 U.S. at 217, 225. The issue of "[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018).

Here, the district court concluded that NetScout failed to show that the combination of elements recited in the asserted claims would have been regarded as conventional, routine, or well-known by skilled artisans in the relevant field. J.A. 391–392. However, the district court expressly found that "network monitors that could recognize various packets as belonging to the same connection flow were well-known in the prior art." J.A. 367 (FF28). The only things identified by the district court as distinguishing the claimed monitors

from these well-known prior art monitors was the ability to identify disjoined connection flows as belonging to the same conversational flow and the attendant benefits of that concept. *See* J.A. 367–368 (FF28–31); J.A. 392 (CL 67–68).[1] These distinctions are based on nothing more than the abstract idea itself, and thus cannot serve as inventive concepts supporting patentability at *Alice* Step 2. *See BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1291 (Fed. Cir. 2018) (concluding that an alleged in-novation of the claim that "simply restates what we have already determined is an abstract idea" cannot serve as an inventive concept at *Alice* Step 2).

Accordingly, the district court's analysis at *Alice* Step 2 was clearly erroneous, and remand is required for the court to conduct the proper analysis in the first instance. On remand, the salient factual inquiry should be whether the components and operations recited in each claim contain anything inventive beyond the abstract concept of classifying by conversational flow. For example, if the words "conversational flows" were omitted from each asserted claim, and replaced with the prior art term, "connection flow," would the ordered combination of recited claim elements amount to

[1] While the district court found that "the inventions recited by the Asserted Claims, in contrast to the prior art, make this more granular classification possible," this finding referenced functions and features that are not recited in the majority of the asserted claims, including claim 19. *See* J.A. 368–369 (FF 32) (citing to portions of the patents discussing "maintaining statistical measures in the flow-entries related to a conversational flow" and collecting "important performance metrics").

something more than the generic and routine aspects of examining and classifying network traffic? That inquiry must be conducted at the level of specificity presented by each claim.

For these reasons, I concur-in-part and dissent-in-part from the majority opinion.

[1] **THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION**

PACKET INTELLIGENCE LLC,	§	
	§	
v.	§	CASE No. 2:16-CV-230-JRG
	§	
NETSCOUT SYSTEMS, INC., et al.	§	

CLAIM CONSTRUCTION MEMORANDUM AND ORDER

(Filed Mar. 15, 2017)

Before the Court is Plaintiff Packet Intelligence LLC's ("Plaintiff's") Opening Claim Construction Brief (Dkt. No. 55). Also before the Court are Defendants NetScout Systems, Inc., Sandvine Corporation, and Sandvine Incorporated ULC's (collectively, "Defendants') response (Dkt. No. 57) and Plaintiffs' reply (Dkt. No. 58).

The Court held a claim construction hearing on March 2, 2017.

Table of Contents

[2] **I. BACKGROUND**

Plaintiff brings suit alleging infringement of United States Patents No. 6,651,099 ("the '099 Patent"), 6,665,725 ("the '725 Patent"), 6,771,646 ("the '646 Patent"), 6,839,751 ("the '751 Patent"), and 6,954,789 ("the '789 Patent") (collectively, the "patents-in-suit," which are also sometimes referred to as the "Asserted Patents") (Dkt. No. 55, Exs. A–E). Plaintiff submits that the patents-in-suit "are generally directed to classifying and monitoring network traffic." (Dkt. No. 55, at 1.)

The '099 Patent, for example, is titled "Method and Apparatus for Monitoring Traffic in a Network" and issued on November 18, 2003. The Abstract of the '099 Patent states:

> A monitor for and a method of examining packets passing through a connection point on a computer network. Each packets [*sic*] conforms to one or more protocols. The method includes receiving a packet from a packet acquisition device and performing one or more parsing/extraction operations on the packet to create a parser record comprising a function of selected portions of the packet. The parsing/extraction operations depend on one or more of the protocols to which the packet conforms. The method further

> includes looking up a flow-entry database containing flow-entries for previously encountered conversational flows. The lookup uses the selected packet portions and determining [*sic*] if the packet is of an existing flow. If the packet is of an existing flow, the method classifies the packet as belonging to the found existing flow, and if the packet is of a new flow, the method stores a new flow-entry for the new flow in the flow-entry database, including identifying information for future packets to be identified with the new flow-entry. For the packet of an existing flow, the method updates the flow-entry of the existing flow. Such updating may include storing one or more statistical measures. Any stage of a flow, state is maintained, and the method performs any state processing for an identified state to further the process of identifying the flow. The method thus examines each and every packet passing through the connection point in real time until the application program associated with the conversational flow is determined.

The patents-in-suit all claim priority to, and incorporate by reference, Provisional Application No. 60/141,903, filed on June 30, 1999. The applications that led to the '099 Patent, the '725 Patent, the '646 Patent, and the '751 Patent were all filed on June 30, 2000. The application that led to the '789 Patent was filed on October 14, 2003, and the '789 Patent is a [3] continuation of the '099 Patent. Plaintiff submits that "[t]he specifications of the Asserted Patents are similar * * * * * " (Dkt. No. 55, at 6 n.4.) Also, the

patents-in-suit filed on June 30,2000, incorporate each other by reference. '099 Patent at 1:11-36; '724 Patent at 1:12-38; '646 Patent at 1:12-33; '751 Patent at 10:7-35. The Court therefore cites the specification of only the '099 Patent unless otherwise indicated.

II. LEGAL PRINCIPLES

This Court's claim construction analysis is guided by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court reiterated that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111,1115 (Fed. Cir. 2004)). "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243,1250 (Fed. Cir. 1998)).

In claim construction, patent claims are generally given their ordinary and customary meaning, which "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed

to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the [4] specification." *Id.* The written description set forth in the specification, for example, "may act as a sort of dictionary, which explains the invention and may define terms used in the claims." *Markman*, 52 F.3d at 979. Thus, as the *Phillips* court emphasized, the specification is "the primary basis for construing the claims." *Phillips*, 415 F.3d at 1314-17. However, it is the claims, not the specification, which set forth the limits of the patentee's invention. Otherwise, "there would be no need for claims." *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc).

The prosecution history also plays an important role in claim interpretation as intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Phillips*, 415 F.3d at 1314-17; *see also Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that "a patentee's statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation"). In this sense, the prosecution history helps to demonstrate how the inventor and the United

States Patent and Trademark Office ("PTO") understood the patent. *Id.* at 1317. Because the prosecution history, however, "represents an ongoing negotiation between the PTO and the applicant," it may sometimes lack the clarity of the specification and thus be less useful in claim construction. *Id.*

Courts are also permitted to rely on extrinsic evidence, such as "expert and inventor testimony, dictionaries, and learned treatises," *id.* (quoting *Markman*, 52 F.3d at 980), but *Phillips* rejected any claim construction approach that sacrifices the intrinsic record in favor of extrinsic evidence. *Id.* at 1319. Instead, the court assigned extrinsic evidence, such as dictionaries, a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula or particular sequence of steps. [5] *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant. "In cases where * * * subsidiary facts are in dispute, courts will need to make subsidiary factual findings about [the] extrinsic evidence. These are the 'evidentiary underpinnings' of claim construction [discussed] in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal." *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

III. AGREED TERMS

In their December 9, 2016 Joint Claim Construction and Prehearing Statement (Dkt. No. 53, at 2) and their February 17, 2017 Joint Claim Construction Chart (Dkt. No. 59, at 4), the parties set forth their agreement as to the following term in the patents-in-suit:

Term	Agreement
"child protocol"	"a protocol that is encapsulated within another protocol"

IV. DISPUTED TERMS

The Court herein addresses the disputed terms in the order in which they have been presented in the Joint Claim Construction and Prehearing Statement and the Joint Claim Construction Chart filed by the parties. (Dkt. No. 53, at Exs. A & B; Dkt. No. 59.)

The parties appear to agree that the disputed terms should have the *same construction across all of the patents-in-suit.* (*See* Dkt. No. 55, at 6; *see also Omega Eng'g, Inc, v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003) ("we presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning").)

[6] **A. "conversational flow[s]" and "conversational flow sequence"**

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
"sequence of packets that are exchanged in any direction as a result of an application program activity that may involve more than one connection and more than one exchange of packets between a client and server related to a particular application program"	"the sequence of packets that are exchanged in any direction as a result of an application program activity, where some such sequences of packets involve more than one connection"

(Dkt. No. 53, Ex. A, at 1; *id.*, Ex. B, at 2; Dkt. No. 55, at 20; Dkt. No. 57, at 2; Dkt. No. 59, at 2.) The parties submit that the term "conversational flow[s]" appears in Claim 1 of the '099 Patent, Claims 10, 15, and 17 of the '725 Patent, Claims 1, 7, and 16 of the '646 Patent, Claims 1 and 17 of the '751 Patent, and Claims 1, 19, and 44 of the '789 Patent. (Dkt. No. 53, Ex. A, at 1; *id.*, Ex. B, at 2.) The parties submit that the term "conversational flow sequence" appears in Claims 1 and 5 of the '099 Patent and Claim 32 of the '789 Patent. (Dkt. No. 53, Ex. A, at 1; *id.*, Ex. B, at 2.)

At the March 2, 2017 hearing, the parties reached agreement that **"conversational flow"** and **"conversational flow sequence"** should be construed to mean **"the sequence of packets that are exchanged in any direction as a result of an activity—for**

instance, the running of an application on a server as requested by a client—and where some conversational flows involve more than one connection, and some even involve more than one exchange of packets between a client and server."

[7] **B. "flow-entry database"**

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary. However, to the extent the Court determines a specific construction is warranted: "an organized electronic collection of flow entries"	"a database configured to store entries that individually describe a previously encountered single connection flow and entries that individually describe a previously encountered flow involving more than one connection"

(Dkt. No. 53, Ex. A, at 2; *id.*, Ex. B, at 3; Dkt. No. 55, at 14; Dkt. No. 57, at 8; Dkt. No. 59, at 23.) The parties submit that this term appears in Claims 1, 3, and 6 of the '099 Patent, Claim 15 of the '725 Patent, Claims 1, 7, 9, 16, and 19 of the '646 Patent, Claims 1 and 17 of the '751 Patent, and Claims 1, 11, 19, 22, 33, and 44 of the '789 Patent. (Dkt. No. 53, Ex. A, at 2; *id.*, Ex. B, at 3; Dkt. No. 55, at 14; Dkt. No. 59, at 2.)

(1) The Parties' Positions

Plaintiff argues that "a 'flow-entry database' is simply an electronic collection of flow entries," and "the claim language confirms [Plaintiff's] interpretation of this disputed term." (Dkt. No. 55, at 15 & 16.) Plaintiff also submits that "[t]he term 'flow-entry database' is never used to describe anything more than an electronic collection of individual flow entries." (*Id.*, at 16.) Plaintiff concludes that "no specific construction is necessary because this term would be easily understood and applied by a jury." (*Id.*, at 17.) Further, Plaintiff argues, Defendants' proposed construction merely repeats the words of the disputed term while adding several unsupported limitations. (*Id.*, at 17-18.)

Defendants respond that this is "not a generic term," and the term has no meaning apart from the patents-in-suit. (Dkt. No. 57, at 9.) Defendants also highlight that "every single independent claim involving this limitation recites that a flow-entry database includes flow entries for 'previously encountered conversational flows.'" (*Id.*) Defendants conclude that [8] "[a] database that is not configured to store conversational flow entries cannot possibly carry out the claimed inventions, and cannot possibly maintain consistency with the claim limitations in which this term resides." (*Id.*, at 11.)

Plaintiff replies that "the Applicants specifically defined 'flow' as 'a stream of packets being exchanged between any two addresses in a network.'" (Dkt. No. 58, at 5 (citing Dkt. No. 55, at 14; citing '099 Patent at

12:4-5).) Plaintiff also argues that "[i]t is unclear what Defendants mean by 'individually describe,' nor did they cite support in the specification for such a requirement." (*Id.*, at 6.)

At the March 2, 2017 hearing, Plaintiff argued that Defendants are improperly conflating the term "flow" with the term "conversational flow." Plaintiff also argued that Defendants' proposal would require, without support, that each flow must be associated with only a single entry. Defendants responded that they would be amenable to removing the word "individually" from their proposed construction.

(2) Analysis

Claim 1 of the '099 Patent, for example, recites in relevant part (emphasis added):

* * *

> (d) a memory storing a *flow-entry database including a plurality of flow-entries for conversational flows encountered by the monitor*;
>
> (e) a lookup engine connected to the parser subsystem and to the flow-entry database, and configured to determine using at least some of the selected portions of the accepted packet if there is an entry in the flow-entry database for the conversational flow sequence of the accepted packet; * * * *

Thus, the "flow" in the term "flow-entry database" can include "conversational flows." As noted above, the parties have agreed upon a construction for "conversational flow."

Plaintiff argues that the claims themselves adequately explain the meaning of "flow-entry database." Although above-quoted Claim 1 of the '099 Patent, for example, recites that a "flow-[9]entry database" includes a plurality of flow entries, Plaintiff has not shown that the claims sufficiently describe the meaning of "flow-entry." (*See* Dkt. No. 55, at 18-19.) Further, Plaintiff has not shown that the recital of specific limitations, such as in dependent claims, necessarily precludes such limitations from being part of the meaning of the disputed term. *See, e.g., Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225,1233 (Fed. Cir. 2001) ("Claim differentiation, while often argued to be controlling when it does not apply, is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, *and that limitation is the only meaningful difference between the two claims.*") (emphasis added). On balance, the Court rejects Plaintiff's argument that "this term would be easily understood and applied by a jury." (Dkt. No. 55, at 17.)

As to the proper construction, the specification discloses that a "flow entry" is a database entry that describes a flow:

> A flow is a stream of packets being exchanged between any two addresses in the network.

> * * *
>
> The parser record is passed onto lookup process 314 which looks in an internal data store of records of known flows that the system has already encountered, and decides (in 316) whether or not this particular packet belongs to a known flow as indicated by the presence of a flow-entry matching this flow in a *database of known flows 324.* A record in database 324 is associated with each encountered flow.
>
> * * *
>
> The flow-entry database 324 stores flow-entries that include the unique flow-signature, state information, and extracted information from the packet for updating flows, and one or more statistical [*sic*] about the flow. *Each entry completely describes a flow.*

'099 Patent at 12:4-5, 13:54-61 & 14:14-18 (emphasis added); *see id.* at 32:5-9 ("A new signature (i.e., a key) will be created and the creation of the server state (904) will be stored as an [10] entry identified by the new signature in the flow-entry database. That signature now may be used to identify packets associated with the server."); *see also 3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1321 (Fed. Cir. 2013) ("Idiosyncratic language, highly technical terms, or terms coined by the inventor are best understood by reference to the specification.").

As to Defendants' proposal that the flow entries must "describe a previously encountered single connection flow" and "describe a previously encountered flow

involving more than one connection," Defendants themselves have submitted that "encountered" and "conversational flows" appear in surrounding claim language. (*See* Dkt. No. 57, at 9-10.) For example, above-quoted limitation (d) in Claim 1 of the '099 Patent recites (emphasis added): "a memory storing a flow-entry database including a plurality of flow-entries *for conversational flows encountered by the monitor*." Because such limitations are recited by other claim language, the Court hereby expressly rejects Defendants' proposal to include such limitations as part of the construction of "flow-entry database."

Therefore, the Court construes **"flow-entry database"** to mean **"a database configured to store entries, where each entry describes a flow."**

C. "parser record"

Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary. However, to the extent the Court determines a specific construction is warranted: "information from a parsing/slicing/extraction operation"	"a data structure containing a flow signature for a packet, a hash and at least parts of the packet's payload for further processing"[1]

[1] Defendants previously proposed: "a data structure containing a flow signature for a packet and at least parts of the packet's payload not used to build the signature." (Dkt. No. 53, Ex. B, at 4.)

[11] (Dkt. No. 53, Ex. A, at 4; *id.*, Ex. B, at 4; Dkt. No. 55, at 7; Dkt. No. 57, at 11; Dkt. No. 59, at 3.) The parties submit that this term appears in Claims 7 and 16 of the '646 Patent and Claims 1, 17, 19, 42, and 44 of the '789 Patent. (Dkt. No. 53, Ex. A, at 4; *id.*, Ex. B, at 4; Dkt. No. 55, at 7; Dkt. No. 59, at 3.)

(1) The Parties' Positions

Plaintiff argues that "the claims themselves define the meaning of 'parser record,'" and "none of these claims require that the parser record contain a 'flow signature' as Defendants propose." (Dkt. No. 55, at 10.) Also, Plaintiff argues that Defendants' proposed phrase "flow signature" is unclear. (*Id.*, at 12.) Plaintiff further argues, as to Defendants' previously proposed construction, that "there is nothing in the claim language supporting Defendants' parts of a packet payload not used to build a signature' limitation." (*Id.*, at 13.)

Defendants respond that this is a "coined term" and that there is no evidence that this term has any meaning outside of the patents-in-suit, and Defendants argue that their proposed construction "gives the term the meaning attributed to it by the Asserted Patents." (Dkt. No. 57, at 12.) Defendants also submit that "the specification explains what a flow signature is and how it is built, and it also explains what a hash is and how it is generated." (*Id.*, at 14.) Finally, Defendants argue that "[t]he alternative construction proposed by Plaintiff is actually inconsistent with the

specification, because a 'parser record' is not simply information that has been parsed, sliced or extracted from a packet." (*Id.*, at 16.)

Plaintiff replies that Defendants' proposal imports limitations from a preferred embodiment. (Dkt. No. 58, at 2.)

[12] (2) Analysis

The specification refers to a "parser record" that has "data from [a] packet" and that includes a "signature":

> These extraction operations (in the form of commands and associated parameters) are passed to the extraction process 306 implemented by an extracting and information identifying (Ell) engine that extracts selected parts of the packet, including identifying information from the packet as required for recognizing this packet as part of a flow. The extracted information is put in sequence and then processed in block 312 to build a unique flow *signature* (also called a "key") for this flow. A flow signature depends on the protocols used in the packet. For some protocols, the extracted components may include source and destination addresses. For example, Ethernet frames have end-point addresses that are useful in building a better flow signature. Thus, the signature typically includes the client and server address pairs. The signature is used to recognize further packets that are or may be part of this flow.

> In the preferred embodiment, the building of the flow key includes generating a *hash* of the signature using a hash function. The purpose if [*sic*] using such a hash is conventional—to spread flow-entries identified by the signature across a database for efficient searching. The hash generated is preferably based on a hashing algorithm and such hash generation is known to those in the art.
>
> In one embodiment, the parser passes data from the packet—a *parser record*—that includes the *signature* (i.e., selected portions of the packet), the hash, and the packet itself to allow for any state processing that requires further data from the packet. An improved embodiment of the parser subsystem might generate a parser record that has some predefined structure and that includes the signature, the hash, some flags related to some of the fields in the parser record, and parts of the packet's payload that the parser subsystem has determined might be required for further processing, e.g., for state processing.

'099 Patent at 13:14-47; *see id.* at 20:16-18 ("The process starts at 801 from FIG. 7 with the parser record that includes a signature, the hash and at least parts of the payload."); *see also id.* at 16:21-28 ("a short-cut recognition pattern—a signature").

These disclosures of a "signature," a "hash," and "parts of the packet's payload," however, are specific features of particular embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323

("although the specification often describes very specific [13] embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments"). The disclosure of a "hash" being used "Mil the preferred embodiment" is consistent with disclosing that a hash is optional.

Defendants urged at the March 2, 2017 hearing that Defendants' proposed construction is supported by consistent disclosure in the specification. In some circumstances, consistent usage of a term in the specification "can inform the proper construction of that term." *Wi-LAN USA, Inc. v. Apple Inc.*, 830 F.3d 1374,1382 (Fed. Cir. 2016); *see also Nystrom v. TREK Co.*, 424 F.3d 1136, 1144 (Fed. Cir. 2005). Here, however, the specification discusses a "parser record" primarily in terms of the purpose that it serves rather than the content that must be stored in the record:

> The parser record is passed onto lookup process 314 which looks in an internal data store of records of known flows that the system has already encountered, and decides (in 316) whether or not this particular packet belongs to a known flow as indicated by the presence of a flow-entry matching this flow in a database of known flows 324. A record in database 324 is associated with each encountered flow.

'099 Patent at 13:53-60. Further, although Defendants have argued that all of the disclosed parser records include at least a signature, a hash, and at least portions of the payload, differences between the various disclosed parser records are noteworthy. For example,

whereas some parser records are disclosed as containing entire packets (and thus entire payloads), some are disclosed as containing only portions of payloads. *See id.* at 13:37-47. Likewise, whereas some parser records are disclosed as containing flags, others are not. *See id.*

On balance, surrounding claim language sufficiently explains the meaning of "parser record." Claim 7 of the '646 Patent, for example, recites (emphasis added):

> 7. A packet monitor for examining packet[s] passing through a connection point on a computer network, each packet[ ] conforming to one or more protocols, the monitor comprising:
>
> [14] a packet acquisition device coupled to the connection point and configured to receive packets passing through the connection point;
>
> an input buffer memory coupled to and configured to accept a packet from the packet acquisition device;
>
> *a parser subsystem* coupled to the input buffer memory, the parsing subsystem *configured to extract selected portions of the accepted packet and to output a parser record containing the selected portions;*
>
> a memory [for] storing a database of one or more flow-entries for any previously encountered conversational flows, each flow-entry identified by identifying information stored in the flow-entry;

a lookup engine coupled to the output of the parser subsystem and to the flow-entry memory and configured to lookup whether the particular packet whose parser record is output by the parser subsystem has a matching flow-entry, the looking up using at least some of the selected packet portions and determining if the packet is of an existing flow;

a cache subsystem coupled to and between the lookup engine and the flow-entry database memory providing for fast access of a set of likely-to-be-accessed flow-entries from the flow-entry database; and

a flow insertion engine coupled to the flow-entry memory and to the lookup engine and configured to create a flow-entry in the flow-entry database, the flow-entry including identifying information for future packets to be identified with the new flow-entry,

the lookup engine configured such that if the packet is of an existing flow, the monitor classifies the packet as belonging to the found existing flow; and if the packet is of a new flow, the flow insertion engine stores a new flow-entry for the new flow in the flow-entry database, including identifying information for future packets to be identified with the new flow-entry,

wherein the operation of the parser subsystem depends on one or more of the protocols to which the packet conforms.

Claim 16 of the '646 Patent likewise recites, in relevant part (emphasis added):

> * * *
>
> (b) performing one or more parsing/extraction operations on the packet to create a parser record comprising a function of selected portions of the packet; * * * *

Claims 1, 17, 19, 42, and 44 of the '789 Patent are similar. For example, Claim 19 of the '789 Patent recites in relevant part (emphasis added):

> * * *
>
> (c) a parser subsystem coupled to the input buffer memory and including a slicer, the parsing subsystem configured to extract selected portions of the accepted packet and to output a parser record containing the selected portions; * * * *

[15] Thus, surrounding claim language, such as set forth above, sufficiently explains the meaning of "parser record" as used in the claims in which "parser record" appears.

As to Defendants' proposal of "signature," Plaintiff has also argued claim differentiation as to Claim 18 of the '646 Patent and Claims 6 and 48 of the '789 Patent. Claim 18 of the '646 Patent, for example, recites (emphasis added):

> 18. A method according to claim 16, wherein the function of the selected portions of the packet forms a *signature* that includes the

> selected packet portions and that can identify future packets, wherein the lookup operation uses the signature and wherein the identifying information stored in the new or updated flow-entry is a signature for identifying future packets.

Although Claim 18 thus recites more than merely a "signature," *see Wenger*, 239 F.3d at 1233 (quoted above), it is noteworthy that a "signature" limitation is recited in this dependent claim rather than in independent Claim 16. *See Phillips*, 415 F.3d at 1315 ("the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim"). Similarly, Plaintiff has argued claim differentiation as to "hash," such as in dependent Claim 9 of the '646 Patent and dependent Claim 22 of the '789 Patent. (*See* Dkt. No. 58, at 2-3.)

Finally, Plaintiff has submitted technical dictionary definitions of "parse." (Dkt. No. 58, Ex. I, *Microsoft Computer Dictionary* 333 (4th ed. 1999) (defining "parse" as "No break input into smaller chunks so that a program can act upon the information"); *id.*, Ex. H, *Microsoft Press Computer Dictionary* 292 (2d ed. 1994) (similar).) Although these definitions do not necessarily demonstrate that the term "parser record" has a well-known meaning, this evidence nonetheless supports Plaintiff's argument that the word "parser" refers to a well-known concept in the relevant art.

[16] The Court rejects Defendants' proposed construction in light of the analysis above. No further

construction is necessary, particularly in light of the context provided by surrounding claim language. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also 02 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims."); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) ("Unlike *02 Micro*, where the court failed to resolve the parties' quarrel, the district court rejected Defendants' construction."); *Active Video Networks, Inc. v. Verizon Commcn's, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

Therefore, the Court construes **"parser record"** to have its **plain meaning**.

V. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patent-in-suit, and in reaching conclusions the Court has considered and relied upon extrinsic evidence. The Court's constructions thus include subsidiary findings of fact

based upon the extrinsic evidence presented by the parties in these claim construction proceedings. *See Teva*, 135 S. Ct. at 841.

The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by [17] the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

Within thirty (30) days of the issuance of this Memorandum Opinion and Order, the parties are hereby ORDERED, in good faith, to mediate this case with the mediator agreed upon by the parties. As a part of such mediation, each party shall appear by counsel and by at least one corporate officer possessing sufficient authority and control to unilaterally make binding decisions for the corporation adequate to address any good faith offer or counteroffer of settlement that might arise during such mediation. Failure to do so shall be deemed by the Court as a failure to mediate in good faith and may subject that party to such sanctions as the Court deems appropriate. No participant shall leave the mediation without the approval of the mediator.

So ORDERED and SIGNED this 14th day of March, 2017.

/s/ Rodney Gilstrap
RODNEY GILSTRAP
UNITED STATES
DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PACKET INTELLIGENCE LLC, *Plaintiff,* v. NETSCOUT SYSTEMS, INC., TEKTRONIX COMMUNICATIONS, TEKTRONIX TEXAS, LLC, *Defendants.*	§ § § § § § § § § § §	**CIVIL ACTION NO. 2:16-CV-00230-JRG**

FINDINGS OF FACT AND CONCLUSIONS OF LAW

(Filed Feb. 14, 2018)

The Court held a jury trial in this case from October 10, 2017 to October 13, 2017. (Dkt. Nos. 239–240, 241.) Ultimately, the jury found that Defendants had willfully infringed the Asserted Patents, rejected Defendants' invalidity arguments, and awarded $5.75 million in damages. (Dkt. No. 237.)

At Defendants' request, the Court now separately issues the following Findings of Fact ("FF") and Conclusions of Law ("CL") addressing Defendants' Rule 52 Motion of Invalidity of the Asserted Patents under 35 U.S.C. § 101 (Dkt. No. 265) ("the Motion"). After considering the evidence and the Parties' arguments, and

for the reasons set forth herein, Defendants' Motion is **DENIED**.

I. FINDINGS OF FACT ("FF")

A. The Parties

[FF1] Plaintiff Packet Intelligence LLC ("Packet Intelligence") is a limited liability company existing under the laws of Texas with its principal place of business at 505 East Travis Street, Suite 209, Marshall, TX 75670. (Dkt. No. 1 at ¶ 1.)

[FF2] Defendant NetScout Systems, Inc. ("NetScout") is a corporation existing under the laws of Delaware with its principal place of business at 310 Littleton Road, Westford, MA 01886-4105. (*Id.* at ¶ 2.)

[FF3] Defendant Tektronix Communications is a wholly owned subsidiary of NetScout. (*Id.* at ¶ 3.)

[FF4] Defendant Tektronix Texas, LLC is a Delaware limited liability company with its principal place of business at 3033 W. President George Bush Highway, Plano, Texas 75075. (*Id.* at ¶ 4.)

B. Procedural History

[FF5] On March 15, 2016, Packet Intelligence sued Defendants NetScout Systems, Inc., Tektronix Communications, and Tektronix Texas, LLC (collectively, "Defendants") alleging infringement of U.S. Patent Nos. 6,651,099 ("the '099 Patent"), 6,665,725 ("the '725 Patent"), 6,771,646 ("the '646 Patent"), 6,839,751

("the '751 Patent"), and 6,954,789 ("the '789 Patent"). (Dkt. No. 1.)

1. Packet Intelligence Narrows the Asserted Patents and Claims

[FF6] On May 23, 2017, Packet Intelligence dropped all of its claims relating to the '099 Patent and the '646 Patent. (Dkt. No. 132 at 13.)

[FF7] On September 29, 2017, the Court granted Packet Intelligence's request to dismiss all claims and counterclaims relating to the '099 Patent and the '646 Patent from the case based on a lack of subject matter jurisdiction given that these patents were no longer asserted. (Dkt. No. 228 at 12.)

[FF8] At trial, the infringement and invalidity arguments presented to the jury related to Claims 10 and 17 of the '725 Patent, Claims 1 and 5 of the '751 Patent, and Claims 19 and 20 of the '789 Patent (collectively, "the Asserted Patents" or "the Asserted Claims"). *See, e.g.*, (Dkt. No. 244, 10/10/17 A.M. Trial Tr. at 14:20–22.)

2. Defendants Challenge the Asserted Patents under § 101

[FF9] On May 16, 2017, Defendants filed their Answer, in which they argued that the Asserted Patents were "invalid and/or unenforceable" under §§ 101, 102, 103, and 112. (Dkt. No. 14 at ¶ 3.)

[FF10] On September 24, 2017, at the Pretrial Conference in this case, Plaintiff argued that Defendants had waived their § 101 defense by either failing to disclose it or by failing to seasonably assert it. (Dkt. No. 221 at 114:19–23 ("[T]hey've also said that they still have a Section 101 defense, even though the time for that clearly would have been, if not at the motion to dismiss stage, then at the dispositive motion stage, if they thought they had a Section 101 defense.").)

[FF11] In order to address this argument, the Court ordered the Parties to file letter briefs. (*Id.* at 120:11–16.) In their responsive brief, Defendants urged the Court to consider their § 101 defense after trial and "pursuant to [Rule] 52" because "it would be most appropriate for the Court to consider the § 101 defense after it has heard background regarding the patents, including the testimony of expert witnesses." (Dkt. No. 223–1 at 6–7.)

[FF12] After reviewing the Parties' arguments and relevant authorities, the Court concluded that Defendants had properly preserved their § 101 defense. (Dkt. No. 228 at 16 ("[T]he Court finds no reason to conclude that the defense was waived in this case simply for failure to file a motion to dismiss or for summary judgment.").) The Court further ordered the Parties, per Defendants' request, to address the issue of § 101 in post-trial motions under Rule 52. (Dkt. Nos. 228, 256.)

[FF13] Jury selection in this case began on October 2, 2017, with trial commencing on October 10, 2017. (Dkt. Nos. 233, 239.)

[FF14] Ultimately, the jury found that Defendants had willfully infringed the Asserted Patents, rejected Defendants' invalidity arguments, and awarded $5.75 million in damages. (Dkt. No. 237.)

[FF15] After the conclusion of the trial, the Court entered a Post-Verdict Docket Control Order instructing the Parties to address various post-trial issues, including Defendants' invalidity arguments under § 101. (Dkt. No. 243.)

[FF16] Accordingly, Defendants timely filed the instant Motion. (Dkt. No. 265 at 25 ("NetScout respectfully requests the Court grant its motion under Rule 52(c) and invalidate all claims asserted by Plaintiff at trial under 35 U.S.C. § 101.").)

C. Findings of Fact With Respect to Defendants' Motion

1. Overview of the Asserted Patents

[FF17] When information is transmitted over a network like the Internet, the information is generally transmitted via groups of packets that flow from one connection point to another. (Dkt. No. 244, 10/10/17 A.M. Trial Tr. at 51:11–52:13.)

[FF18] This singular flow of packets, from Point A to Point B, is commonly called a "connection flow."

See, e.g., '789 Patent 2:41–43 ("The term 'connection flow' is commonly used to describe all the packets involved with a single connection.").

[FF19] Transmitting information over a network often involves transferring packets across multiple connection flows. (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 108:23–111:12.) For example, an application such as Facebook might transmit pictures and videos via different connection flows even though this content will ultimately be assembled together for display as a single website by a browser. (*Id.*)

[FF20] In measuring the amount or type of information being transmitted by a particular application or protocol, a network monitor needs to measure *all* of the connection flows through which that application or protocol transmits packets. For example, if a network monitor cannot associate the traffic caused by Facebook sending pictures via one connection flow with the traffic caused by Facebook sending videos via another connection flow, the network monitor will have an incomplete view of how much traffic on the network is attributable to Facebook. *See, e.g.*, (Dkt. No. 244, 10/10/2017 A.M. Trial Tr. at 55:23–56:16 ("[T]hat web page that you're using [is] made up of lots of these different connection flows. And the problem is * * * how do I know that that's all related to that one app or * * * web page* * * *").)

[FF21] This is precisely the problem to which the Asserted Patents are directed. '789 Patent at 1:48–51 ("The present invention relates to computer

networks, specifically to the real-time elucidation of packets communicated within a data network, including classification according to protocol and application program."); '751 Patent at 3:2–5 ("[P]rior-art systems cannot collect some important performance metrics that are related to a complete sequence of packets of a flow or to several disjointed sequences of the same flow in a network."); '725 Patent at 1:66–2:6 ("Not only should all the packets be detected and analyzed, but for each of these packets the network monitor should determine the protocol (e.g., http, ftp, H.323, VPN, etc.), the application/use within the protocol (e.g., voice, video, data, real-time data, etc.), and an end user's pattern of use within each application or the application context (e.g., options selected, service delivered, duration, time of day, data requested, etc.).").

[FF22] For example, Claim 19 of the '789 Patent recites a process of parsing packets to extract information that can be used to associate packets with a single conversational flow and thus a particular application or protocol.[1] (Dkt. No. 244, 10/10/2017 A.M. Trial Tr. at 57:5–12 ("[W]hat we came up with was a way to take information from all of those different

[1] This Court previously construed the term "conversational flow" to mean "the sequence of packets that are exchanged in any direction as a result of an activity—for instance, the running of an application on a server as requested by a client—and where some conversational flows involve more than one connection, and some even involve more than one exchange of packets between a client and server." (Dkt. No. 66 at 6.) This construction reflected language agreed to by both Parties at the *Markman* hearing held on March 2, 2017. (*Id.*)

packets in each of those connection flows and create a conversational flow. And the conversational flow, as we see in this picture, can be 3 or 300 or 30 different connection flows, but they're all associated now to that one application, the app on your phone and that web page."); Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 118:11–15 ("[T]he idea is the packets come in, they're parsed, and you try and associate it with a particular flow.").)

[FF23] Figure 3 depicts this process in more detail:

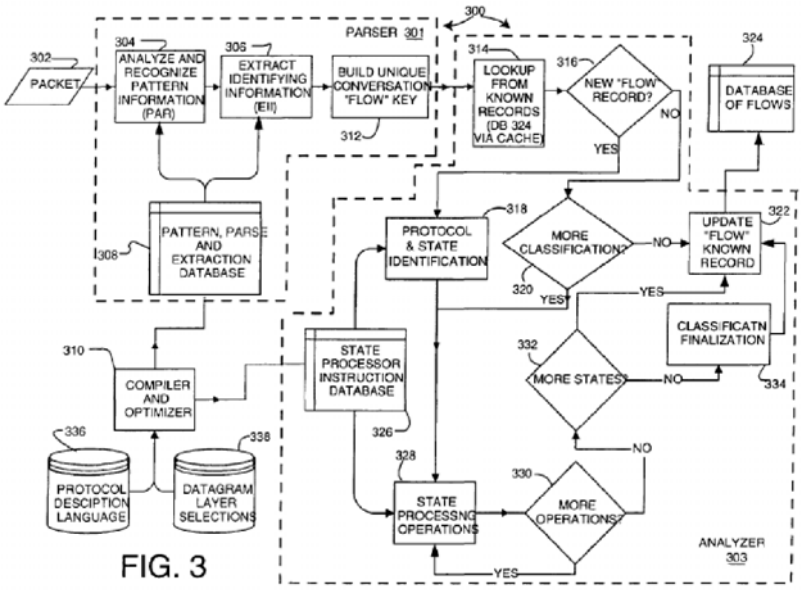

FIG. 3

[FF24] Specifically, the parser subsystem "parses the packet and determines the protocol types and associated headers for each protocol layer," "extracts characteristic portions (signature information) from the packet," and builds a "unique flow signature (also

called a 'key')" based on the packet. '789 Patent at 12:19–13:28, 33:30–34:33. Next, the analyzer subsystem determines whether the packet, based on this signature or key, has a corresponding entry in the flow-entry database. *Id.* at 13:60–16:52. If it does, then the flow-entry is updated and, as necessary, additional operations may be performed on the packet to "fully characterize" the associated conversational flow. *Id.* at 14:54–61 ("Updating includes updating one or more statistical measures stored in the flow-entry."), 14:63–15:47 (describing state-based operations carried out to "finalize[]" the characterization of a particular conversational flow), 16:28–33 ("Once a particular set of state transitions has been traversed for the first time and ends in a final state, a short-cut recognition pattern—a signature—can be generated that will key on every new incoming packet that relates to the conversational flow."). If the packet does not have a corresponding entry, then a new entry is created and "a protocol and state identification process 318 further determines * * * the protocols and where in the state sequence for a flow for this protocol's this packet belongs [sic]." *Id.* at 14:44–53.

[FF25] Claim 20 of the '789 Patent depends from Claim 19, adding the additional limitation that the packet monitor described in Claim 19 accepts packets in real-time. '789 Patent at Claim 20.

[FF26] Claim 10 of the '725 Patent, in part, recites similar steps, including performing certain operations on packets after determining the conversational flow to which they belong. (Dkt. No. 245, 10/10/17 P.M.

Trial Tr. at 175:5–10 ("So for the remainder of the wherein limitation, you'll see that it says: Parsing and extracting operations on a packet to extract selected portions of the packet. So for that portion, it's the same kind of evidence that I had pointed to earlier, that the parsing subsystem [of Claim 19 of the '789 Patent] does.").)

[FF27] The same is true for Claim 17 of the '725 Patent, *id.* at 177:20–22 (noting that the language of Claim 10 and Claim 17 are "identical" with respect to all limitations except the wherein clause of Claim 17 and concluding that "the same evidence and methodology * * * can be applied to this one remaining piece of Claim 17 of the '725 patent"), Claim 1 of the '751 Patent, *id.* at 157:16–159:13 (noting that the same evidence of infringement that applied to Claim 19 of the '789 Patent applied to Claim 1 of the '751 Patent because of the similarities between the two claims), and Claim 5 of the '751 Patent, *id.* at 166:1–20 (same).[2]

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[2] The Court is mindful that there are important differences between an infringement and invalidity analysis. However, as Packet Intelligence recognized in offering its expert testimony on infringement, there is substantial overlap between the Asserted Patents, at least with respect to the fact that they all relate to a similar problem, the need to associate various connection flows with the same conversational flow, and thus the same underlying application or protocol. Additionally, the Court focuses on Claim 19 of the '789 Patent because Packet Intelligence has identified this claim as representative of the Asserted Patents. For example, at trial, Packet Intelligence informed the jury that Claim 19 of the '789 Patent was "exemplary" of the other Asserted Claims. (Dkt. No. 244, 10/10/17 A.M. Trial Tr. at 14:23–25 ("[W]hat I'm

2. Improvements Over the Prior Art

[FF28] Network monitors that could recognize various packets as belonging to the same connection flow were well-known in the prior art when the Asserted Patents were filed. *See, e.g.*, '789 Patent at 2:42–44; (Dkt. No. 245, 10/10/2017 P.M. Trial Tr. at 181:22–182:8.)

[FF29] However, these prior art monitors could not identify disjointed *connection* flows as belonging to the same *conversational* flow. *See, e.g.*, '789 Patent at 3:56–59 ("What distinguishes this invention from prior art network monitors is that it has the ability to recognize disjointed flows as belonging to the same conversational flow."); (Dkt. No. 245, 10/10/2017 P.M. Trial Tr. at 189:1–5 ("Q. Would you agree that the prior art does not link, in your opinion, conversation—connection flows into conversation flows? A. Yes."); Dkt. No. 248, 10/11/2017 P.M. Trial Tr. at 132:17–138:16; Dkt. No. 250, 10/12/2017 P.M. Trial Tr. at 42:15–48:22.) This inability to associate different connection flows to each other was a crucial limitation in the prior art because applications often transmit data via multiple connection flows. *See* '751 Patent at 3:25 ("[P]rior-art systems cannot collect some important performance metrics that are related to a complete sequence of packets of a flow or to several disjointed sequences of the same low in a network."); '725 Patent at 12:29–33 (explaining that using the disclosed inventions reveals "[w]hat

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putting up on your screen is the – an – an exemplary claim, the Claim 19 of the '789 Patent.").)

may seem to prior art monitors to be some unassociated flow * * * to be a sub-flow associated with a previously encountered sub-flow"); '789 Patent at 15:31–34 (same); (Dkt. No. 245, 10/10/2017 P.M. Trial Tr. at 33:10–14 ("Q. And this is the * * * source of the problem that your patent discusses when it says a single activity can result with multiple connections, right? A. Yes, yes. I mean, that was part of the role in the conversational flow.").)

[FF30] By contrast, the Asserted Patents describe how disjointed connection flows can be associated with a single conversational flow to more precisely associate traffic with a particular application or protocol. [FF17–27]; *see also* (Dkt. No. 245 at 12:7–23, 102:12–20 ("[W]hat we're talking about is * * * [i]dentifying the underlying protocols, the applications that are being used, and the user activity that's caused those packets to flow through the network to try and achieve an understanding about how the network is being used.").)

[FF31] Such an application specific view of network traffic is more granular, nuanced, and useful. For example, a network monitor that can identify the underlying application associated with different connection flows can distinguish between network congestion caused by users watching too many videos and congestion caused by users watching too many videos using a particular application. (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 16:6–17:25, 18:16–18 ("[I]f you now know what these applications are, then you have a greater ability to control and manage your network."),

102:12–20, 112:18–113:1 ("[P]art of why it's important * * * to have this kind of information is for the Internet service providers to be able to measure and analyze their networks. What activity is happening? Is it more than anticipated? Is there a certain application that's come out that's causing congestion?").)

[FF32] The inventions recited by the Asserted Claims, in contrast to the prior art, make this more granular classification possible. *See, e.g.*, '751 Patent at 2:53–56 ("By maintaining statistical measures in the flow-entries related to a conversational flow, embodiments of the present invention enable specific metrics to be collected in real-time that otherwise would not be possible."); '751 Patent at 3:2–4:6 ("[P]rior-art systems cannot collect some important performance metrics that are related to a complete sequence of packets of a flow or to several disjointed sequences of the same flow in a network * * * In particular, the metrics [made possible by the recited inventions] may be used to monitor and analyze the quality and performance of traffic flows related to a specific set of applications."); '725 Patent at 12:29–33 (explaining that using the disclosed inventions reveals "[w]hat may seem to prior art monitors to be some unassociated flow * * * to be a sub-flow associated with a previously encountered sub-flow"); '789 Patent at 15:31–34 (same); (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 15:14–17 ("Q. Now, were the probes in the 1997 time frame able to accurately classify the traffic that was coming from these more complicated applications and protocols? A. No, not in the 1998 [sic] time frame."), 16:619:3.)

[FF33] In addition to improving network monitors' ability to classify and diagnose network congestion, increased network visibility can also help network providers identify and address intrusions, *i.e.* malicious attacks. (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 119:25–120:16 ("[P]art of protecting networks from intrusion attacks from people trying to get into servers is – is understanding what the traffic is that's coming over a network. And so being able to classify it, there are certain kinds of attacks that have what are called signatures that when an attack is starting to happen, there will be certain kinds of packets that you can look at or certain patterns. And so based on traffic classification, that's the kind of benefit that you can get from some of the technology in the patent"))

[FF34] Ultimately, based on the evidence presented in this case, the Court finds that the Asserted Claims offered improvements over the prior art that existed at the time, particularly in light of the limitations of such art. [FF17–33].

[FF35] Similarly, the Court finds that Defendants failed to establish by clear and convincing evidence that the combination of elements recited by the Asserted Claims was conventional, routine, or well-known as compared to the then-existing state of the art and the limitations of such art. [FF17–34].

II. CONCLUSIONS OF LAW

A. Legal Standard

1. Federal Rule of Civil Procedure 52

[CL1] "If a party has been fully heard on an issue * * * the court may enter judgment against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue." Fed. R. Civ. P. 52(c). Such a judgment "must be supported by findings of fact and conclusions of law." *Id.*

[CL2] The purpose of these findings is to "afford[] * * * a clear understanding of the ground or basis of the decision of the trial court." *S. S. Silberblatt, Inc. v. U.S. for Use & Benefit of Lambert Corp.*, 353 F.2d 545, 549 (5th Cir. 1965) (internal quotation marks omitted); *see also Schlesinger v. Herzog*, 2 F.3d 135, 139 (5th Cir. 1993) (explaining that trial courts need not "recite every piece of evidence" or "sort through the testimony of * * * dozen[s] [of] witnesses").[3]

[CL3] In making a particular finding, the district court "does not * * * draw any inferences in favor of the non-moving party and * * * [instead] make[s] a determination in accordance with its own view of the evidence." *Fairchild v. All Am. Check Cashing, Inc.*, 815 F.3d 959, 964 n.1 (5th Cir. 2016) (internal quotation marks omitted). However, a district court still must

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[3] *See Chemlawn Servs. Corp. v. GNC Pumps, Inc.*, 823 F.2d 515, 517 (Fed. Cir. 1987) (procedural aspects of Rule 52 controlled by regional circuit law).

arrive at each of its factual determinations based on the applicable burden of proof. *In re Medrano*, 956 F.2d 101, 102 (5th Cir. 1992) (reversing the district court because it applied the preponderance of the evidence standard rather than the clear and convincing standard in making its factual determinations under Rule 52).[4]

2 The § 101 Inquiry

[CL4] Historically, the only statutory conditions for patentability were novelty and utility. *See, e.g.*, *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530, 535 (2d Cir. 1955) (Hand, J.) ("From 1793, when the second patent act was passed, until the Act of 1952, the only statutory standard for invention was that the discovery should be 'new and useful'* * * *").

[CL5] However, in *Hotchkiss v. Greenwood*, 52 U.S. 248, 267 (1850), the Supreme Court concluded "that a patentable invention [must] evidence more ingenuity and skill than that possessed by an ordinary mechanic acquainted with the business." *See Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 11 (1966) (discussing *Hotchkiss*). This rule became known as the "invention" requirement. *Lyon*, 224 F.2d at 535.

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[4] Here, the relevant burden of proof is clear and convincing evidence. *Berkheimer v. HP Inc.*, No. 2017-1437, 2018 WL 774096, at *5 (Fed. Cir. Feb. 8, 2018) ("Any fact, such as this one, that is pertinent to the invalidity conclusion must be proven by clear and convincing evidence.").

[CL6] Applying the invention requirement, courts began to invalidate patents that merely claimed abstract ideas or phenomena of nature. *See, e.g.*, *Hotel Sec. Checking Co. v. Lorraine Co.*, 160 F. 467, 469 (2d Cir. 1908) (concluding that a patent "cover[ing] simply a system of bookkeeping made applicable to the conditions existing in hotels and restaurants" failed to "rise to the level of invention" because it claimed a "fundamental principle * * * as old as the art of bookkeeping"); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 131 (1948) ("The Circuit Court of Appeals thought that Bond did much more than discover a law of nature, since he made an [sic] new and different composition of non-inhibitive strains which contributed utility and economy to the manufacture and distribution of commercial inoculants. But we think that that aggregation of species fell short of invention* * * * * ").

[CL7] Over time, application of the invention requirement became increasingly unpredictable. *Lyon*, 224 F.2d at 535 ("The variants were numberless; and 'invention' became perhaps the most baffling concept in the whole catalogue of judicial efforts to provide postulates for indefinitely varying occasions."); *First Report of the National Patent Planning Commission*, June 18, 1943, H. Doc. 239, 78th Cong. at 10 ("One of the greatest technical weaknesses of the patent system is the lack of a definitive yardstick as to what is invention."); *Efforts to Establish a Statutory Standard of Invention*, Study No. 7, Senate Subcommittee on Patents,

Trademarks, and Copyrights, 85th Cong., 1st Sess. (Committee Print, 1958).

[CL8] To "stabiliz[e]" this area of law, Congress codified the invention requirement in § 103. *Graham*, 383 U.S. at 12–13, 15–16.

[CL9] The rule against patents on abstract ideas and laws of nature, however, found a new home in § 101. Thus, cases addressing the invention requirement, such as *Funk Bros.*, were incorporated into § 101 jurisprudence. *See, e.g.*, *Parker v. Flook*, 437 U.S. 584, 593 (1978) *("Mackay Radio* and *Funk Bros.* point to the proper analysis for this case* * * *"). This severed the rule against patents on abstract ideas and laws of nature from its moorings in the invention requirement, *i.e.* obviousness, yet similar principles were applied under the new § 101 test. For example, *Flook* began by recognizing that natural phenomenon belong to "the prior art." *Id.* at 594 ("Respondent's process is unpatentable under § 101, not because it contains a mathematical algorithm as one component, but because once that algorithm is assumed to be within the prior art, the application, considered as a whole, contains no patentable invention."). *Flook* then examined whether the claims recited an "inventive concept," *i.e.* an invention, apart from that prior art. *Id.* ("Even though a phenomenon of nature or mathematical formula may be well known, an inventive application of he principle may be patented. Conversely, the discovery of such a phenomenon cannot support a patent unless there is some other inventive concept in its application."); *Diamond v. Diehr*, 450 U.S. 175, 204

(1981) ("Under this procedure, the algorithm is treated for § 101 purposes as though it were a familiar part of the prior art; the claim is then examined to determine whether it discloses 'some other inventive concept.") (quoting *Flook*, 437 U.S. at 591–592)); *see also Funk Bros.*, 333 U.S. at 132 ("[O]nce nature's secret of the non-inhibitive quality of certain strains of the species of Rhizobium was discovered, the state of the art made the production of a mixed inoculant a simple step * * * That is to say, there is no invention here unless the discovery that certain strains of the several species of these bacteria are non-inhibitive and may thus be safely mixed is invention. But we cannot so hold * * * ").

[CL10] Eventually, the approach taken in *Flook* was distilled into a two-step test for determining whether a patent claims subject matter that is eligible for patent protection.[5] *See Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012); *Alice Corp. Pty. v. CLS Bank*, op 134 S. Ct. 2347 (2014).

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[5] Despite the similarities between the approach taken in *Funk Bros.* and *Flook*, the Supreme Court has made clear that the § 101 inquiry is distinct from §§ 102 and 103. *See Flook*, 437 U.S. at 595 (criticizing an argument that "confuse[d] the issue of patentable subject matter under § 101 with that of obviousness under § 103"); *Diehr*, 450 U.S. at 191 ("A rejection on either of these grounds does not affect the determination that respondents' claims recited subject matter which was eligible for patent protection under § 101.").

a. Step One

[CL11] The first step of the *Mayo/Alice* framework requires a court to determine if the claims are "directed to excluded subject matter." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016).

[CL12] There is no bright line rule that governs this analysis. *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) ("[A] search for a single test or definition in the decided cases concerning § 101 from this court, and indeed from the Supreme Court, reveals that at present there is no such single, succinct, usable definition or test."), *cert. denied*, 138 S. Ct. 469 (2017).

[CL13] However, the approach taken by many courts at the first step of *Mayo/Alice* seems to resemble a sort of abstract idea comparison test. Courts refine a representative claim down to some kernel, focus, or gist, and then seek out cases where other courts' distillations of different claims were framed in similar terms and held to be abstract.

[CL14] While the common law tradition has always called on courts to match new facts to old cases, courts addressing § 101 are, perhaps understandably, too often comfortable drawing upon the distillations recited in prior precedent rather than the reasoning, the nuance, and the circumstances discussed in those cases. This has led to several problems.

[CL15] First, courts take different approaches to divining the idea that is apparently embodied in a

particular claim. *Compare In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) ("[I]n determining whether the claims are directed to an abstract idea, we must be careful to avoid oversimplifying the claims because at some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." (internal quotation marks, brackets, and ellipses omitted)); *Enfish*, 822 F.3d at 1337 ("[D]escribing the claims at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule."); *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1345 (Fed. Cir. 2002) ("It is well settled that there is no legally recognizable or protected essential element, gist or heart of the invention * * * Rather, the invention is defined by the claims." (internal citations, quotation marks, and brackets omitted)), *with Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017) ("The district court's inquiry centered on determining the 'focus' of the claims, and was thus in accord with our precedent"); *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1328 (Fed. Cir. 2017) ("[W]e agree with the district court that the heart of the claimed invention lies in creating and using an index to search for and retrieve data."); *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1150 (Fed. Cir. 2016) ("[T]he Asserted Claims are drawn to the abstract idea of translating a functional description of a logic circuit into a hardware component description of the logic circuit * * * we believe [this] definition more accurately captures the basic thrust of the Asserted Claims."

(internal quotation marks omitted)); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) ("Dealertrack's claimed process in its simplest form includes three steps: receiving data from one source (step A), selectively forwarding the data (step B, performed according to step D), and forwarding reply data to the first source (step C)."); *Becton, Dickinson & Co. v. Baxter Int'l, Inc.*, 127 F. Supp. 3d 687, 692 (W.D. Tex. 2015) ("After stripping away the technicalisms and superfluous verbiage from the claims' language, it is evident that the gist of the claims, and indeed the entire aim of the patent, involves a pharmacist supervising and verifying the work of a nonpharmacist to ensure the work's accuracy."), *aff'd without opinion*, 639 F. App'x 652 (Fed. Cir. 2016).

[CL16] As a result, it is often the ***propriety of the district court's characterization*** of the claims that becomes the subject of the ensuing appeal. *Compare Enfish*, 822 F.3d at 1337 ("The district court concluded that the claims were directed to the abstract idea of 'storing, organizing, and retrieving memory in a logical table'.* * * *"), *with Enfish*, 822 F.3d at 1337 ("However, describing the claims at such a high level of abstraction * * * all but ensures that the exceptions to § 101 swallow the rule.").

[CL17] All of this has led to increasing uncertainty with respect to § 101. *See, e.g.*, *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (Linn, J., dissenting in part) ("Despite the number of cases that have faced these questions and attempted to provide practical guidance,

great uncertainty yet remains."). Indeed, distilling claims in this way seems to build abstraction into the process of evaluating whether claims are abstract. *See, e.g.*, *id.* (Linn, J., dissenting in part) ("[I]f we are not to re-characterize the claims, what are we supposed to do? Are we not to ignore any limitations? May we ignore some? If so, which ones? Which limitations matter and which do not?").

[CL18] Against this evolving backdrop, the Court simply notes that determining whether certain claims are directed to an unpatentable abstract idea or something else, such as an improvement to computer technology, does not *always* require first restating an oversimplified version of the claim language. Instead, courts can apply general principles articulated by the Supreme Court and Federal Circuit to determine whether the claims themselves are directed to subject matter that is or is not abstract.

[CL19] For example, the Federal Circuit has recognized that "[a]bstraction is avoided or overcome when a proposed new application or computer-implemented function is not simply the generalized use of a computer as a tool to conduct a known or obvious process, but instead is an improvement to the capability of the system as a whole." *Trading Techs. Int'l, Inc. v. CQG*, 675 F. App'x 1001, 1005 (Fed. Cir. 2017) (unpublished); *see also Alice*, 134 S. Ct. at 2358 ("[T]he claims in *Diehr* were patent eligible because they improved an existing technological process, not because they were implemented on a computer.").

[CL20] The Federal Circuit has also authored dozens of opinions that help explain why claims may or may not be directed to improvements to computer functionality. One important consideration in these cases has been whether the claims recited "an unconventional technological solution * * * to a technological problem." *See, e.g., Amdocs*, 841 F.3d at 1300–1301.

[CL21] In *Amdocs*, the "unconventional technological solution" involved distributed data gathering, filtering, and enhancing done via a network, which, among other things, helped reduce network congestion. *Amdocs*, 841 F.3d at 1300–1301. This "unconventional technological solution" was patent eligible even though it "involve[d] arguably generic gatherers, network devices, and other components" because these generic components "work[ed] in an unconventional distributed fashion to solve a particular technological problem."

[CL22] In *Enfish*, the unconventional technical solution was a particular type of data structure, not "*any* form of storing tabular data, but * * * a *self-referential* table for a computer database." 822 F.3d at 1337 (emphasis in original). In particular, according to the relevant specification, this "self-referential" database functioned differently than conventional, "inferior" databases. *Id.* ("[O]ur conclusion that the claims are directed to an improvement of an existing technology is bolstered by the specification's teachings that the claimed invention achieves other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements."); *see*

also Finjan, Inc. v. Blue Coat Sys., Inc., 879 F.3d 1299, 1305 (Fed. Cir. January 10, 2018) ("[T]he self-referential database found patent eligible in *Enfish* did more than allow computers to perform familiar tasks with greater speed and efficiency; it actually permitted users to launch and construct databases in a new way.").

[CL23] In *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), the unconventional technical solution involved allowing users to click on third-party ads while still displaying this content on the original host website rather than a separate, third-party website. 773 F.3d at 1257. This prevented the host-website from losing visitors who clicked on an advertisement while still "provid[ing] visitors with the opportunity to purchase products from the third-party merchant without actually entering that merchant's website." *Id.* Although this "store within a store" concept had a clear brick and mortar analog, the Federal Circuit observed that the patent at issue addressed "th[e] challenge of retaining control over the attention of the customer in the context of the Internet." *Id.* at 1258–59. This "challenge" had no clear brick and mortar analog, and neither did the solution offered by the claim at issue. *Id.* Moreover, the fact that the solution was achieved using some conventional steps or components was not dispositive. *Id.*

[CL24] Finally, in *Finjan*, the representative method claim "employ[ed] a new kind of file that enable[ed] a computer security system to do things it could not do before." *Finjan*, 879 F.3d at 1305. In particular, the file allowed virus scanners to build a security

profile that could be used to dynamically identify existing and potential threats. *Id.* Thus, the claims recited an improvement to computer functionality because they allowed virus scanners to do something they could not do before. *Id.* at *3–4.

[CL25] By contrast, abstract software claims usually involve implementing well-known concepts or practices using a computer, not as an improvement to the way the computer functions but as a way to simply operationalize the idea itself. This principle is exemplified by *Alice, Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014), and *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016), among others.

[CL26] In *Alice*, the claims recited "the concept of intermediated settlement" as carried out by a computer program. 134 S. Ct. at 2356–57. As the Supreme Court explained, the need addressed by these claims had been recognized for more than a century. *Id.* The solution presented by the claims had been around just as long. *Id.* What the claims recited, then, was simply a way to operationalize a known solution to an existing problem using a computer. *Id.* Allowing a patent for this sort of combination would, according to the Supreme Court, essentially confer a patent on the idea itself, pre-empting any other use. *Alice*, 134 S. Ct. at 2358 ("[I]f a patent's recitation of a computer amounts to a mere instruction to implement an abstract idea on a computer, that addition cannot impart patent eligibility. This conclusion accords with the pre-emption

concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of additional feature that provides any practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself." (internal citations, quotation marks, ellipses, and brackets ommitted)).

[CL27] *Content Extraction* makes a similar point. The relevant claim in that case recited a method for scanning documents so that some information about the documents was digitally identified and stored. *Content Extraction*, 776 F.3d at 1345. The Federal Circuit recognized that neither the solution offered by the relevant claim nor the need to which it was addressed were rooted in technology. *Id.* at 1347. Instead, the claims merely recited functions that "humans ha[d] always performed." *Id.* ("[B]anks have, for some time, reviewed checks, recognized relevant data such as the amount, account number, and identity of account holder, and stored that information in their records."). Thus, the claims were ineligible because the addition of conventional components did not recite something more than the abstract idea itself. *Id.* at 1347–48; *Alice*, 134 S. Ct. at 2358–59 (cautioning against allowing an applicant to "claim any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept").

[CL28] Likewise, in *Symantec*, the representative claim at issue recited the steps of receiving and filtering e-mail messages. 838 F.3d at 1313. Again, as

in *Alice* and *Content Extraction*, not only did this invention have a clear analog, but that analog evidenced that the need addressed by the invention was not technical or new. *Id.* at 1314. Thus, the proffered solution simply performed with a computer what many people had performed in their minds. *Id.* at 1314 ("[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").

[CL29] Together, these cases define a category of inventions that are not necessarily abstract, *i.e.* improvements to computer technology. These cases also set forth general principles that can help determine whether particular claims are directed to an abstract idea or not. Moreover, these general principles flow from the circumstances addressed by prior opinions and the analyses provided therein, not from perceived similarities between an abstracted version of asserted claims and the gist, heart, focus, or thrust of previously invalidated inventions.

[CL30] Accordingly, the Court draws on these same principles in its analysis in this case.

b. Step Two

[CL31] If claims are directed to ineligible subject matter, then a court next "search[es] for an 'inventive concept,' or some element or combination of elements sufficient to ensure that the claim in practice

amounts to 'significantly more' than a patent on an ineligible concept." *DDR Holdings*, 773 F.3d at 1255; *see also Bascom Glob. Internet Servs., Inc. v. AT & T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) ("[A]n inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.").

[CL32] The defendant bears the burden under this step to establish by clear and convincing evidence that the Asserted Claims lack an inventive concept. *Berkheimer*, No. 20171437, 2018 WL 774096, at *5 ("The 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.").

[CL33] At times, the inventive concept inquiry may "overlap" with other validity inquiries, including obviousness.[6] *Mayo*, 566 U.S. at 90; *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015) ("[P]recedent illustrates that pragmatic analysis of § 101 is facilitated by considerations analogous

[6] Indeed, as explained above, [CL4–CL10], the "inventive concept" inquiry originating from *Flook* and the statutory defense of obviousness have significant historical and analytical overlap. *See Flook*, 437 U.S. at 600 (Stewart, J., dissenting) ("The Court * * * strikes what seems to me an equally damaging blow at basic principles of patent law by importing into its inquiry under 35 U.S.C. § 101 the criteria of novelty and inventiveness." (internal citations omitted)).

to those of §§ 102 and 103 as applied to the particular case."); *Trading Techs.*, 675 F. App'x at 1005–06 ("[T]he public interest in innovative advance is best served when close questions of eligibility are considered along with the understanding flowing from review of the patentability criteria of novelty, unobviousness, and enablement* * * *").

[CL34] However, the "inventive concept" inquiry remains separate and distinct from §§ 102 and 103. *See, e.g.*, *Diehr*, 450 U.S. at 191 ("A rejection on [novelty or obviousness] grounds does not affect the determination that respondents' claims recited subject matter which was eligible for patent protection under § 101.").

[CL35] Thus, our courts have charted a course as to the "inventive concept" inquiry which establishes a pathway that is separate and apart from the well-worn trail of cases defining obviousness. Instead, the focus of step two of *Mayo/Alice* is a search for "something more," something that ensures the claims are "more than a drafting effort designed to monopolize the abstract idea." *Alice*, 134 S. Ct. at 2354–2357 (internal brackets omitted); *see also DDR Holdings*, 773 F.3d at 1259.

[CL36] "[S]omething more" may be present "when the claim limitations involve more than performance of well-understood, routine, and conventional activities previously known to the industry." *Berkheimer*, No. 2017-1437, 2018 WL 774096, at *5 (internal quotation marks and brackets omitted).

[CL37] "[S]omething more" may also be evidenced by the existence of specific "benefits" provided by the relevant invention as compared to the prior art. *See, e.g.*, *Bascom*, 827 F.3d at 1350 ("The inventive concept described and claimed in the '606 patent is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server."); *Amdocs*, 841 F.3d at 1302 ("The benefits in *BASCOM* were possible because of customizable filtering features at specific locations remote from the user. Similarly, the benefits of the '065 patent's claim 1 are possible because of the distributed, remote enhancement that produced an unconventional result—reduced data flows and the possibility of smaller databases."); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1259 (Fed. Cir. 2017) ("The patented system achieved greater accuracy than these prior art systems by measuring inertial changes of the tracked object relative to the moving platform's reference frame."); *Enfish*, 822 F.3d at 1337 ("[O]ur conclusion that the claims are directed to an improvement of an existing technology is bolstered by the specification's teachings that the claimed invention achieves other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirement.").

B. Discussion

1. The Role of Factual Findings in the § 101 Context

[CL38] The Federal Circuit has repeatedly acknowledged that the inquiry under § 101 is a legal question that 'may contain underlying factual issues' *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016); *see also In re Comiskey*, 554 F.3d 967, 975 (Fed. Cir. 2009) ("[T]here may be cases in which the legal question as to patentable subject matter may turn on subsidiary factual issues * * * "); *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1055–56 (Fed. Cir. 1992) ("Whether a claim is directed to statutory subject matter is a question of law. Although determination of this question may require findings of underlying facts * * * with appropriate recognition of the burdens on the challenger of a duly issued United States patent.").

[CL39] The same is true of other legal questions that pervade patent law, including claim construction, obviousness, indefiniteness, and enablement. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 842 (2015) (explaining that construing patent claims sometimes involves making factual determinations); *Graham*, 383 U.S. at 17 ("While the ultimate question of patent validity is one of law * * * [§ 103] lends itself to several basic factual inquiries."); *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1343 (Fed. Cir. 2016) ("Indefiniteness is a question of law * * * subject to a determination of underlying facts."); *Alcon*

Research Ltd. v. Barr Labs., Inc., 745 F.3d 1180, 1188 (Fed. Cir. 2014) ("Whether a claim satisfies the enablement requirement of 35 U.S.C. § 112 is a question of law * * * although the determination may be based on underlying factual findings* * * *").

[CL40] The distinction between legal and factual questions is critical because factual determinations carry with them a burden of proof. *See Microsoft Corp., v. i4i P'ship*, 564 U.S. 91, 114 (2011) (Breyer, J., concurring) ("I believe it worth emphasizing that in this area of law as in others the evidentiary standard of proof applies to questions of fact and not to questions of law.").

[CL41] Factual questions are also reviewed under a more deferential standard of review, which promotes uniformity and reflects a proper view of a trial court's factfinding function. *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 744 F.3d 1272, 1312 (Fed. Cir. 2014) (O'Malley, J., dissenting) ("The Supreme Court has made clear, however, that [a] narrow view of the trial court's factfinding function is an inaccurate one."), *cert. granted, judgment vacated sub nom. Lighting Ballast Control LLC v. Universal Lighting Techs., Inc.*, 135 S. Ct. 1173 (2015); *Teva*, 135 S. Ct. at 838 (2015) ("A district court judge who has presided over, and listened to, the entirety of a proceeding has a comparatively greater opportunity to gain that familiarity than an appeals court judge who must read a written transcript or perhaps just those portions to which the parties have referred." (citing *Lighting Ballast*, 744 F.3d at 1312 (O'Malley, J., dissenting)); *In re*

Bilski, 545 F.3d 943, 994 (Fed. Cir. 2008) (Newman, J, dissenting) ("Each patent examination center, each trial court, each panel of this court, will have a blank slate on which to uphold or invalidate claims * * * add[ing] delay, uncertainty, and cost* * * *"); *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 701 F.3d 1351, 1362 (Fed. Cir. 2012) (Moore, J., dissenting from denial of petition for rehearing en banc) ("When we convert factual issues, or mixed questions of law and fact, into legal ones for our de novo review, we undermine the uniformity and predictability goals this court was designed to advance.").

[CL42] While neither the Federal Circuit nor the Supreme Court have defined exactly which aspects of the § 101 inquiry are legal or factual in nature, the Federal Circuit has explained that "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." *Berkheimer*, No. 20171437, 2018 WL 774096, at *5; *see also Aatrix Software, Inc. v. Green Shades Software, Inc.*, No. 2017-1452 (Fed. Cir. February 14, 2018) (same); *Ameritox, Ltd. v. Millennium Health, LLC*, 88 F. Supp. 3d 885, 911 (W.D. Wis. 2015) ("When, as here, Millennium is asking the court to infer that the combination of elements is conventional, it must supply some evidence to convince the trier of fact to accept its version of events. Since those facts are lacking here, Millennium's position is necessarily rejected.").

[CL43] Accordingly, the Court has made specific factual findings under the clear and convincing

evidence standard with respect to the factual questions that underpin its § 101 analysis, including whether the Asserted Claims involve a combination of elements or steps that were well-understood, routine and conventional from the perspective of a person skilled in the art at the time the Asserted Patents were filed. *See Berkheimer*, No. 2017-1437, 2018 WL 774096, at *5. Where appropriate, the Court has also referenced these findings in discussing both steps of *Mayo/Alice*.[7]

2. Step One of *Alice*

[CL44] Under step one, the Court begins by analyzing the Asserted Claims to determine whether they are directed to an unpatentable abstract idea or

[7] To the extent the Parties have a right to resolve these underlying factual issues through a jury trial, the Court considers this argument waived. Defendants specifically sought relief from this Court by invoking a rule that instructs the district court to make factual findings. *See* Fed. R. Civ. P. 52(c) ("A judgment on partial findings must be supported by findings of fact and conclusions of law as required by Rule 52(a)."); *Seaboard Lumber Co. v. United States*, 903 F.2d 1560, 1563 (Fed. Cir. 1990) ("Waiver requires only that the party waiving such right do so 'voluntarily' and 'knowingly' based on the facts of the case."). In response, Plaintiff did not object on Seventh Amendment grounds at any point in its briefing, at the hearing the Court held on the instant Motion, or at any point thereafter, even as Plaintiff also argued that factual issues were in dispute and should be resolved in its favor. Thus, in this case, Rule 52 is an appropriate mechanism to resolve the § 101 question. However, in future cases, it may not be.

something like an improvement to computer functionality. *See, e.g.*, *Visual Memory*, 867 F.3d at 1259.

[CL45] Defendants argue that the Asserted Claims are directed to "the collection, comparison, and classification of information." (Dkt. No. 265 at 15–16.) Defendants then assert that the Federal Circuit has "routinely" found claims directed to similarly abstract ideas to be patent ineligible. (*Id.*)

[CL46] Defendants further contend that the Asserted Claims are not directed to an improvement in computer functionality because the recited methods "do not improve the way computers operate." (*Id.* at 17–18.) Instead, Defendants argue, the Asserted Claims use generic components to analyze packets on a network without explaining "how to determine whether any packets belong to a 'conversational flow.'" (*Id*.)

[CL47] Plaintiff argues that the Asserted Claims directly relate to problems that arose because of limitations in prior art network monitors, "a problem arising squarely within the realm of computer technology." (Dkt. No. 278 at 10–11.)

[CL48] According to Plaintiff, the Asserted Claims address these problems with an unconventional technological solution, combining "both state and application classification functionality * * * into an ordered set of components that allow for the recognition and classification based on conversational flows." (*Id.* at 12–14 ("As the trial testimony and the patents show, the claims describe fundamentally

technical solutions to the prior art packet analysis that was unable to recognize disjointed exchanges of packets between network endpoints related to a single activity or application, a problem firmly rooted in computer technology.").)

[CL49] Plaintiff also disputes Defendants' formulation of the Asserted Claims as embodying the abstract idea of collecting, comparing, and classifying information. (*Id.* at 1 ("NetScout's over-simplified and reductivist approach is precisely what courts have criticized—because all claims can be characterized as abstract when reduced to an abstraction.").)

[CL50] At the outset, the Court agrees with Packet Intelligence. In fact, even NetScout concedes that its characterization of the claims as reciting nothing more than "the collection, comparison, and classification of information" can only be reached by viewing the Asserted Claims in their "simplest form." (Dkt. No. 265 at 15–16 ("Stripped of technical jargon * * * [and] [d]istilled to their 'simplest form,' the asserted claims are directed to the collection, comparison, and classification of information.").) *But see Allen Eng'g Corp. v. Bartell Indus., Inc.,* 299 F.3d 1336, 1345 (Fed. Cir. 2002) ("It is well settled that there is no legally recognizable or protected essential element, gist or heart of the invention * * * Rather, the invention is defined by the claims." (internal citations, quotation marks, and brackets omitted)).

[CL51] NetScout's reliance on precedent is similarly misguided, focusing on matching the abstract

idea apparently lurking beneath the Asserted Claims in this case to high-level distillations offered by other courts with respect to unrelated claims. (Dkt. No. 265 at 16.) As discussed above, [CL11–30], this abstract idea matching approach too often proceeds, as it does in Defendants' analysis, without regard for the very limitations that improve on existing technology.

[CL52] By contrast, an examination of the Asserted Claims, in context with the relevant specifications and the evidence presented at trial, demonstrates that the Asserted Claims are oriented towards solving a discrete technical problem: relating disjointed connection flows to each other. [FF17–21, 28–30]. Even Defendants' own expert conceded that the Asserted Patents are directed towards solving this discrete technical problem. (Dkt. No. 248, 10/11/2017 P.M. Trial Tr. at 136:7–136:16 ("Q. Do the patents describe a problem that they're trying to solve? A. They do. Q. And can you describe that [problem], please? A. Well, the problem they -- they coined a term called the 'disjointed flow problem' * * * [a]nd I'll use those words because they -- they're perfectly good words to describe the problem [of identifying traffic across multiple connection flows as being from the same application or protocol]."), 136:17–137:16.)

[CL53] To address this problem, the Asserted Claims recite specific technological solutions, such as identifying and refining a conversational flow so that different connection flows can be associated with each other and ultimately an underlying application or protocol. [FF22–27]. Again, this is something Defendants'

expert explained (Dkt. No. 248, 10/11/2017 P.M. Trial Tr. at 138:4–139:2 ("Q. And how did the inventors indicate they were going to solve this problem? * * * A. They created something called the conversational flow solution. They coined it – the term 'conversational flow' * * * Q. And does the patent describe how you would identify and classify different connections into a conversational flow? A. Yes, it does.").)

[CL54] In spite of this evidence, Defendants argue that "the asserted claims are directed to human-practicable concepts, which could be implemented in a 'brick-and-mortar post office.'" (Dkt. No. 265 at 25 (citing *Symantec*, 838 F.3d at 1318).)

[CL55] In fact, the Federal Circuit recently revisited *Symantec* in *Finjan*, distinguishing the latter case because the claims at issue "d[id] a good deal more" than recite the steps of filtering messages. *Finjan*, 879 F.3d at 1304. For example, the claims in *Finjan*, read together with the specification, described how to construct a security profile that allowed for "more flexible and nuanced virus filtering." *Id.*

[CL56] In this same vein, the Asserted Claims in this case do more than just recite the idea of filtering and sorting data. [FF22–27]. For this reason, *Amdocs, DDR Holdings, Enfish*, and *Finjan* are instructive. Together, they describe circumstances, present in this case, which indicate that the Asserted Patents are not merely directed to an abstract idea. In particular, the Asserted Claims recite an "unconventional technological solution," *Amdocs*, 841 F.3d at 1300, not *any*

approach to sorting packets, but a particular approach focused on constructing conversational flows that associate connection flows with each other and ultimately specific applications or protocols. *Enfish*, 822 F.3d at 1337; [FF21–34]. This allows packet monitors to classify network traffic in a way that prior network monitors could not. *Finjan*, 879 F.3d at 1305 (noting that the invention "employ[ed] a new kind of file that enable[ed] a computer security system to do things it could not do before"); '751 Patent at 2:53–56 ("By maintaining statistical measures in the flow-entries related to a conversational flow, embodiments of the present invention enable specific metrics to be collected in real-time that otherwise would not be possible."); [FF17–34].

[CL57] Nevertheless, Defendants maintain that the Asserted Claims still fail under step one because the claims themselves do not "explain *how* * * * to determine whether any packets belong to a 'conversational flow.' (Dkt. No. 265 at 18) For example, Defendants argue that the claims "fail[ ] to recite any specific means or method to classify packets and belonging to the same 'conversational flow.'" (*Id.* at 9, 11 ("[C]laim 1 recites no specific means or methods for accomplishing the stated goal of determining whether packets are part of a 'conversational flow.'"), 14 ("[C]laims 10 and 17 recite performing various operations * * * [but] these operations are generic and, in particular, fail to specify a means or method for achieving the stated goal

of identifying packets as belonging to a 'conversational flow.' ").[8]

[CL58] This argument fails because it focuses only on the claims in isolation rather than the claims as read in light of the specification. *But see Enfish*, 822 F.3d at 1335 ("[T]he 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.' ").

[CL59] Taken together, the claims and the specification do teach how to identify that certain packets belong to the same conversational flow. [FF24–27]; *see also* '725 Patent at 7:518:29; *see also* '789 Patent at 10:15–11:32; '751 Patent at 7:53–8:30. In fact, Defendants' own expert acknowledged that the Asserted Patents explain how to associate packets from different connection flows with the same conversational flow. *See, e.g.*, (Dkt. No. 248, 10/11/2017 P.M. Trial Tr. at 138:24–139:2 ("Q. And does the patent describe how you would identify and classify different connections into a conversational flow? A. Yes, it does.").)

[CL60] Additionally, Defendants' argument essentially collapses a § 112 inquiry into the § 101 inquiry, which is inappropriate.[9] *See Visual Memory*, 867

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[8] Defendants also raise a variety of other arguments under *Mayo/Alice* step one, including that the claims recite only generic, purely functional components, which the Court addresses under the second step, acknowledging that the steps in *Mayo/Alice* involve significant overlap.

[9] Allowing § 101 to swallow every other invalidity inquiry, as Defendants urge and some courts seem willing to do, essentially

F.3d at 1261 ("[W]hether a patent specification teaches an ordinarily skilled artisan how to implement the claimed invention presents an enablement issue under 35 U.S.C. § 112, not an eligibility issue under § 101.").

[CL61] Ultimately, based on the facts of this case, [FF17–34], the claims themselves, and the claims as read in the context of the specification, the Court concludes that the Asserted Patents are directed to an improvement in computer functionality rather than an unpatentable abstract idea. However, for completeness, the Court still finds it appropriate to discuss the second step of *Mayo/Alice*.

3. Step Two of *Alice*

[CL62] Under step two, Defendants argue that the steps recited in the Asserted Claims, individually or in combination, involve conventional components carrying out the routine steps of parsing and analyzing packets. (*Id.* at 19–24.)

[CL63] To support this argument, Defendants chart the Asserted Claims against various prior art references:

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relieves defendants of their disclosure obligations. For example, in this case, Defendants did not argue at trial, or before, that the patents were invalid for lack of written description or enablement. Thus, to permit these arguments to be injected for the first time through § 101 unavoidably encourages gamesmanship and trial by ambush.

a lookup engine	[T]he **network data engine** is executed by the CPU to provide *the* functionality for creating and deleting tables within the memory [] and ***searching the tables*** **according to a plurality of indices**." Ex. C (Iddon) at 4:6–1.[6]

(*Id.* at 10.)

[CL64] In response, Plaintiff argues that the combination of components recited in the Asserted Claims is inventive. *See, e.g.*, (Dkt. No. 278 at 12–13 ("The Asserted Claims cover the relevant subsystems and unique combination of components and operations that work together to capture and maintain application and state classification."), 24–25.)

[CL65] Plaintiff also argues that the "something more" offered by the Asserted Claims is evident from the numerous benefits, discussed by several witnesses at trial, which can be traced to the inventions recited by the Asserted Claims. (Dkt. No. 278 at 20–21; *see also* Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 119:25–120:16 (discussing benefits attributable to the Asserted Claims).)

[CL66] With respect to the purported benefits identified by Plaintiff, Defendants reply that these benefits are too generic and too difficult to trace to the Asserted Claims. (Dkt. No. 282 at 5–6 ("PI, however,

identifies nothing in the asserted claims that provides a concrete solution to obtain any of these alleged benefits.").)

[CL67] At the outset, the Court has already found that Defendants have failed to show that the combination of elements recited in the Asserted Claims would have been regarded as conventional, routine, or well-known by a skilled artisan in the relevant field as compared to the then existing state of the prior art and the limitations of those prior art references, even including the additional references cited by Defendants in the instant Motion. [FF17–FF35]; *Berkheimer*, No. 2017-1437, 2018 WL 774096, at *5 ("The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.").[10] Defendants

[10] This conclusion is further bolstered by the jury's verdict in this case, which rejected Defendants' arguments that the conversational flow limitation existed in the prior art or was invented by someone other than the named inventors. *See Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015) (A "pragmatic analysis of § 101 is facilitated by considerations analogous to those of §§ 102 and 103 as applied to the particular *case*."); *Symantec*, 838 F.3d at 1330 (Stoll, J., dissenting) ("While I recognize that validity under §§ 102 and 103 is a distinct inquiry from eligibility under § 101, and may not be dispositive of § 101, the jury verdict nonetheless supports the notion that this particular ordering of the components in claim 7 was not conventional at the time."). This conclusion is also bolstered by the fact that the Asserted Patents have withstood challenges at the PTAB on anticipation and obviousness grounds. (Dkt. No. 278 at 21); *Ericsson Inc. v. TCL Commc'n Tech. Holdings, Ltd.*, No. 2:15-CV-00011, 2017 WL 5137401, at *8 (E.D. Tex. Nov. 4, 2017) ("The fact that the PTAB concluded that TCL failed to establish that a person of ordinary skill in the art would be motivated to

have fundamentally failed to establish that the Asserted Claims lack an inventive concept. *Berkheimer*, No. 2017-1437, 2018 WL 774096, at *5.

[CL68] However, Plaintiff has also provided significant evidence of benefits achieved by the Asserted Claims as compared to the prior art. [FF28–35]. These benefits are not merely the sort of gains to efficiency or speed that necessarily result in using a computer to carry out any number of routine practices. *Id.* Rather, the Asserted Claims recite ways for network monitors to more precisely monitor network traffic, congestion, and malicious attacks. [FF21–FF35]; (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 119:4–121:15 ("The idea then of being able to use the patented technology and looking at packets, at flows, and at conversations * * * facilitates the increase in classification that gets you up to that higher tier, that 90 to 95 percent classification capability.")); *see also Finjan*, 879 F.3d at 1304–1305 (distinguishing benefits such as "greater speed and efficiency" from other benefits such as "more flexible and nuanced virus filtering"); *Amdocs*, 841 F.3d at 1300–1301 (recognizing the ability to address network congestion as a benefit).

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combine computer-based security software with the relevant mobile platform technology * * * suggests that the systems claimed by the '510 patent are not merely conventional applications of computer technology.").

[CL69] Accordingly, Defendants have failed to establish that the Asserted Claims lack an inventive concept.[11]

III. CONCLUSION

For the reasons set forth above, the Court concludes that Defendants have failed to show that the Asserted Claims are ineligible under § 101. Accordingly, Defendants' Motion (Dkt. No. 265) is **DENIED**.

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[11] Plaintiff also argues, albeit in a single sentence, that even if Defendants prevail under *Mayo/Alice*, the instant Motion is still procedurally deficient because § 282 does not provide for a defense challenging subject-matter eligibility. (Dkt. No. 278 at 9-10 (citing a then pending, now denied petition for certiorari)). The Federal Circuit has essentially rejected this argument. *See Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1330 (Fed. Cir. 2015) ("Section 101 *validity* challenges today are a major industry, and they appear in case after case in our court and in Supreme Court cases * * * *" (emphasis added)); *see also GoDaddy.com LLC v. RPost Commc'ns Ltd.,* No. CV-14-00126-PHX-JAT, 2016 WL 3165536, at *5 (D. Ariz. June 7, 2016) ("Similar to the Federal Circuit in *Versata*, the Court finds that a 'hyper-technical adherence' to the section heading of § 101 is not enough to overcome decades of interpreting § 101 as a valid defense in patent infringement litigation."), *aff'd*, 685 F. App'x 992 (Fed. Cir. 2017) (unpublished), *cert. denied*, No. 17-695, 2017 WL 5237829 (U.S. Dec. 11, 2017). Accordingly, the Court also rejects this argument.

So ORDERED and SIGNED this 14th day of February, 2018.

/s/ Rodney Gilstrap
RODNEY GILSTRAP
UNITED STATES
DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

PACKET INTELLIGENCE LLC, Plaintiff, v. NETSCOUT SYSTEMS, INC., TEKTRONIX COMMUNICATIONS, TEKTRONIX TEXAS, LLC, Defendants.	§ § § § § § § § § § §	CIVIL ACTION NO. 2:16-CV-00230-JRG

ORDER GRANTING-IN-PART PLAINTIFF'S MOTION FOR AN ONGOING ROYALTY

(Filed Sep. 7, 2018)

Before the Court is Plaintiff Packet Intelligence LLC's[1] Motion for an Ongoing Royalty. (Dkt. No. 267). Having considered the Motion, the Court is of the opinion that it should be **GRANTED-IN-PART** as set forth herein for the reasons set forth below.

[1] For clarity, Plaintiff Packet Intelligence LLC will be referred to as "Plaintiff," "Packet Intelligence," or "PI." Similarly, Defendants NetScout Systems, Inc., Tektronix Communications, and Tektronix Texas, LLC will be referred to as "Defendants," "NetScout," or the "NetScout Defendants."

I. BACKGROUND

This case was tried to a jury between October 10, 2017, and October 13, 2017. (Dkt. Nos. 239–42). The jury returned a verdict on October 13, 2017, finding willful infringement of the asserted claims, finding none of the asserted claims invalid, and awarding damages in the amount of $5.75 million. (Dkt. No. 237). Following submission of the evidence to the jury, on October 13, 2017, a bench trial was conducted as to equitable issues. (Dkt. No. 242). The Court entered a Post-Trial Docket Control Order setting the conduct of post-trial proceedings. (Dkt. No. 243). The Court heard argument on various motions, including the instant Motion on January 17, 2017. (Dkt. No. 293).

The Jury found that Packet Intelligence proved that (i) NetScout infringed the U.S. Pat. Nos. 6,665,725, 6,839,751, and 6,954,789 (the "Asserted Patents"), (ii) that the infringement was willful, (iii) that none of the asserted claims of the Asserted Patents were invalid, (iv) that PI was entitled to damages of $3.5 million from the date of first infringement to March 15, 2016 (the date of the filing of this suit) and $2.25 million for infringement from the March 15, 2016 to the date the verdict was rendered, and (v) that that damages award was intended to be a running royalty. (Dkt. No. 237).

II. APPLICABLE LAW

"Under some circumstances, awarding an ongoing royalty for patent infringement in lieu of an injunction may be appropriate," but "awarding an ongoing royalty

where 'necessary' to effectuate a remedy, be it for antitrust violations or patent infringement, does not justify the provision of such relief as a matter of course whenever a permanent injunction is not imposed." *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1314–15 (Fed. Cir. 2007). "District courts have considerable discretion in crafting equitable remedies" including "impos[ing] an ongoing royalty." *Id.* at 1316 (Rader, J., concurring).

"[T]here is a 'fundamental difference' between 'a reasonable royalty for pre-verdict infringement and damages for post-verdict infringement.'" *XY, LLC v. Trans Ova Genetics, L.C.*, 890 F.3d 1282, 1297 (Fed. Cir. 2018) (quoting *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1360 (Fed. Cir. 2008)). The Federal Circuit has instructed that "when calculating an ongoing royalty rate, the district court should consider the 'change in the parties' bargaining positions, and the resulting change in economic circumstances, resulting from the determination of liability.'" *XY*, 890 F.3d at 1297 (quoting *Amado*, 517 F.3d at 1362). When, as here, patent claims are held to be not invalid and infringed, "this amounts to a 'substantial shift in the bargaining position of the parties.'" *XY*, 890 F.3d at 1297 (quoting *Active Video Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1342 (Fed. Cir. 2012)). The Federal Circuit also instructed district courts to "consider changed economic circumstances, such as changes related to the market for the patented products." *XY*, 890 F.3d at 1297 (citing *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1315 n.15 (Fed. Cir. 2007)); *Active Video*, 694 F.3d

at 1343 (noting that district courts may consider "additional evidence" of "economic circumstances that may be of value in determining an appropriate ongoing royalty").

"The requirement to focus on changed circumstances is particularly important when, as in this case, an ongoing royalty effectively serves as a replacement for whatever reasonable royalty a later jury would have calculated in a suit to compensate the patentee for future infringement." *XY*, 890 F.3d at 1297 (citing *Paice*, 504 F.3d at 1315 n.15 ("This process will * * * allow the parties the opportunity to present evidence regarding an appropriate [ongoing] royalty rate to compensate [the patentee] * * * * * " (emphasis added)). "The later jury would necessarily be focused on what a hypothetical negotiation would look like after the prior infringement verdict. Therefore, post-verdict factors should drive the ongoing royalty rate calculation in determining whether such a rate should be different from the jury's rate." *XY*, 890 F.3d at 1297 (citing *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1370 (Fed. Cir. 2017) ("Ongoing royalties may be based on a post-judgment hypothetical negotiation using the Georgia-Pacific factors.").

III. DISCUSSION

Packet Intelligence seeks an ongoing royalty in the face of NetScout's continuing infringement "through ongoing use and sales of its GeoProbe products, and through using and selling the same

technology found to infringe in a new product line (ISNG)." (Dkt. No. 267 at 3). PI also seeks an going royalty rate increased both due to changed circumstances following the jury verdict and further enhancement due to what it alleges is continued willful infringement. (*Id.* at 8, 12).

As this Court has noted, "[t]he question of whether to award an ongoing royalty is guided at least in part by the form and scope of relief awarded by the jury." *Cioffi v. Google, Inc.*, Civil Action No. 2:13-cv-103, 2017 U.S. Dist. LEXIS 147590, at *6 (E.D. Tex. Sep. 12, 2017).[2] Here, as in *Cioffi*, the jury's verdict expressly

[2] This statement of law is well supported, as this Court noted in *Cioffi*. 2017 U.S. Dist. LEXIS 147590, at *6-8 ("For example, in *Summit 6, LLC v. Samsung Elecs. Co.*, the jury's damages award took the form of a lump sum royalty. 802 F.3d 1283, 1301 (Fed. Cir. 2015). There, the Federal Circuit held that "the district court properly denied [the plaintiff's] request for an ongoing royalty because the jury award compensated [the plaintiff] for both past and future infringement through the life of the patent." *Id.* at 1300-01. *See also Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1379 (Fed. Cir. 2010) ("An award of an ongoing royalty is appropriate because the record supports the district court's finding that [the plaintiff] has not been compensated for [the defendant's] continuing infringement."); *Fresenius USA, Inc. v. Baxter Ina, Inc.*, 582 F.3d 1288, 1303 (Fed. Cir. 2009) ("Fresenius I") ("A damages award for pre-verdict sales of the infringing product does not fully compensate the patentee because it fails to account for post-verdict sales of repair parts * * * * The district court was within its discretion to impose a royalty on those sales of disposable products in order to fully compensate [the patentee] for the infringement."); *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, No. 2:15-cv-1202-WCB, 2017 U.S. Dist. LEXIS 111425, 2017 WL 3034655, at *2 (E.D. Tex. July 18, 2017) (Bryson, J.) ("*UroPep*") ("[I]t would be improper for the Court first to conclude that the damages awarded by the jury do not cover the post-verdict

indicates the reasonable royalty was a running royalty as opposed to a lump sum award.

Further, as the Court noted at the hearing on this Motion, there is no dispute "that this is not a lump-sum award by the jury, and that if the verdict * * * [is] left in place, that a forward-looking royalty or a running royalty based on this verdict, without being amended, would be an implied royalty rate of 1.4 percent." (Dkt. No. 297, Hr'g Tr. at 37:22–38:2). That said, NetScout argues that the jury's damage award "sufficiently compensated PI for past and future infringement" and that the jury's damages award "already exceeds the amount, if any, to which PI is entitled." The Court disagrees.[3] A jury, duly sworn and empaneled, considered all of the evidence in rendering its verdict and *specifically indicated* that its verdict was *not* to be considered

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period, but then to rule that [the plaintiff] is not entitled to any relief for that period."). Accordingly, whether the jury award compensates the patentee for future infringement is important because without some form of prospective relief, the patent owner is effectively forced to "resort to serial litigation" to receive compensation for future infringement. *UroPep*, 2017 U.S. Dist. LEXIS 111425, 2017 WL 3034655, at *2 (quoting *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 35 (Fed. Cir. 2012)).

[3] As the Court notes in its concurrently issuing Order Granting Pre- and Post-Judgment Interest, if there is "scant evidence," such that the jury's verdict should be revisited, it will be addressed in the Motion for Judgment as a Matter of Law which NetScout promises is forthcoming. (*See* Dkt. No. 275 at 2 n.2). As in the concurrently issuing Order, while the Court does not believe there is an immediate need to address this issue in its determination of this Motion, to the extent it is required, the Court finds Packet Intelligence has pointed to sufficient evidence to rebut NetScout's allegation.

to be a lump-sum license, but rather a running royalty. The jury was clearly informed that in so indicating it was permitting Packet Intelligence to be compensated for infringement in the future. (*See* Dkt. No. 252, Trial Tr. (10/13/17 All Day) at 59:5–11 ([Mr. Davis] "And, finally, it's important to look at the royalty. You've been asked – you heard Mr. Bergman testify that a running royalty is the appropriate royalty in this case, and we ask that when you make this determination, that you select running royalty so that Packet Intelligence can be compensated for any infringement going forward from here.")).

While ongoing royalties are a form of equitable relief, and a court may "exercise its discretion to conclude that no forward-looking relief is appropriate in the circumstances," *WhitServe*, 694 F.3d at 35, the verdict form indicates that the jury's damages award was intended to compensate Plaintiffs only for past infringement and neither party has pointed to evidence or arguments presented at trial that would support an argument that the jury award included future infringement. From this, the Court finds it fitting to award an ongoing royalty in this case, as the jury's award fails to compensate Plaintiffs for future infringement. *See Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283,1301 (Fed. Cir. 2015) (affirming denial of ongoing royalty because "the jury award compensated [the plaintiff] for both past and future infringement through the life of the patent"); *Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365,1379 (Fed. Cir. 2010) ("An award of an ongoing royalty is appropriate

because the record supports the district court's finding that [the plaintiff] has not been compensated for [the defendant's] continuing infringement."); *UroPep*, 2017 U.S. Dist. LEXIS 111425, 2017 WL 3034655 at *2 ("[I]t would be improper for the Court first to conclude that the damages awarded by the jury do not cover the post-verdict period, but then to rule that [the plaintiff] is not entitled to any relief for that period.").

However, Packet Intelligence moves this Court award this ongoing royalty to both "the infringing G10 and GeoBlade products" *and* a new product line "the InfiniStreamNG (ISNG)." Serious Seventh Amendment concerns are raised by the prospect of finding a product not included in the infringement contentions could be subject to an ongoing royalty. There is a clear absence of a jury's finding of infringement of such product.[4] As this Court noted during argument, "[parties] don't accuse technology, [parties] accuse products that embody and practice technology. [Parties] have to identify specific products." (Dkt. No. 297, Hr'g Tr. at 41:16–19). This requirement exists to avoid precisely this problem. Further, the evidence presented by PI in support of its contention that the ISNG products are not "colorabl[y] different" from the GeoBlade products is of no effect. The key fact here is that PI never

[4] The same concerns are not nearly as present as to products that are "not more than colorably different" from adjudged infringing products. *See*, *e.g.*, *Mondis Tech. Ltd. v. Chimei Innolux Corp.*, No. 2:11-cv-378-JRG, 2012 U.S. Dist. LEXIS 60004, at *6–8 (E.D. Tex. Apr. 30, 2012) (granting ongoing royalty to infringing products and any products "not colorably different" from infringing technology).

accused the ISNG products of infringement. Consequently, there is no basis in law for the Corut to award any recovery as to those products. Notably, this Court denied Plaintiffs Motion to Amend its infringement contentions to include the InfiniStream family of products (Dkt. No. 60) in April 2017, well before trial, clearly demarking the products that were in and those that were out of the case. (Dkt. No. 100). Accordingly, the Court finds that the ongoing royalty may only be applied to products actually accused in this case and specifically excludes InfiniStream products from such an application.

The Court next addresses the issue of the appropriate rate. The base rate all parties agree should be the starting point is the implied royalty rate of 1.41% based upon the jury's damages award. (Dkt. No. 267 at 2 n.1[5]; Dkt. No. 276 at 10 ("If this Court determines an ongoing royalty is appropriate, the proper starting point for the analysis is the jury's 1.4% implied royalty rate.")).

"Prior to judgment, liability for infringement, as well as the validity of the patent, is uncertain, and damages are determined in the context of that uncertainty. Once a judgment of validity and infringement has been entered, however, the calculus is markedly different because different economic factors are involved." *Amado*, 517 F.3d at 1362; *accord Paice LLC v.*

[5] The Court denied Packet Intelligence's Amend the Jury's Damages Award to Conform to the Evidence at Trial and for Entry of Judgment (Dkt. No. 268) which sought increasing the award to an implied 3.5% rate. (*See* Dkt. No. 297, Hr'g Tr. at 17:10-12).

Toyota Motor Corp., 504 F.3d 1293, 1317 (Fed. Cir. 2007) ("[P]re-suit and post judgment acts of infringement are distinct, and may warrant different royalty rates given the change in the parties' legal relationship and other factors.") (Rader, J., concurring).

Considering the Jury's verdict in this case, the Court finds it appropriate to "assume that the jury finding of liability in this case would have strengthened [the plaintiffs] bargaining position had the parties negotiated a license after the jury verdict." *Boston Sci. Corp. v. Johnson & Johnson*, No. C 02-00790 SI, 2009 U.S. Dist. LEXIS 35372, at *12 (N.D. Ca. Apr. 19, 2009).

Packet Intelligence also notes that "between 2010 and the present, PI has both successfully asserted and defended its patents" including against Cisco. (Dkt. No. 267 at 9 (citation omitted)). PI also notes the citation of its patents by other patents "more than 100 additional times." (*Id.* at 9–10 (citation omitted)). Finally, and most importantly to PI, it has successfully prevented institution of IPR proceedings on its patents six times. (*Id.* at 10 (citation omitted)).

Considering these facts,[6] the Court finds that an increase in the ongoing royalty above the implied base rate of 1.41% is appropriate. In view of the foregoing,

[6] For the same reasons as noted above, the Court will not consider evidence relating to the ISNG product line in its determination of the ongoing royalty.

the Court finds that the ongoing royalty rate should be set at 1.55%.

IV. CONCLUSION

As set forth above, the Court hereby **GRANTS-IN-PART** Plaintiff Packet Intelligence LLC's Motion for an Ongoing Royalty. (Dkt. No. 267). Accordingly, the ongoing royalty rate in this case is hereby **SET** at 1.55% of the revenue received by NetScout produced by the post-verdict infringing conduct (use, sales, offers for sale, or importation into the U.S.) of the accused G10 and GeoBlade products through the life of the asserted patents.

So ORDERED and SIGNED this 7th day of September, 2018.

/s/ Rodney Gilstrap
RODNEY GILSTRAP
UNITED STATES
DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PACKET INTELLIGENCE LLC, Plaintiff, v. NETSCOUT SYSTEMS, INC., TEKTRONIX COMMUNICATIONS, TEKTRONIX TEXAS, LLC, Defendants.	§ § § § § § § § § § § §	CIVIL ACTION NO. 2:16-CV-00230-JRG

ORDER GRANTING MOTION FOR ENHANCED DAMAGES

(Filed Sep. 7, 2018)

Before the Court is Packet Intelligence LLC's[1] Motion for Enhanced Damages and Entry of Judgment. (Dkt. No. 269). Having considered the Motion, the Court is of the opinion that it should be and hereby is **GRANTED** to the extent and for the reasons set forth herein.

[1] For clarity, Plaintiff Packet Intelligence LLC will be referred to as "Plaintiff," "Packet Intelligence," or "PI." Similarly, Defendants NetScout Systems, Inc., Tektronix Communications, and Tektronix Texas, LLC will be referred to as "Defendants," "NetScout," or the "NetScout Defendants."

I. BACKGROUND

This case was tried to a jury between October 10, 2017, and October 13, 2017. (Dkt. Nos. 239–42). The jury returned a verdict on October 13, 2017, finding willful infringement of the asserted claims, finding none of the asserted claims invalid, and awarding damages in the amount of $5.75 million. (Dkt. No. 237). Following submission of the evidence to the jury, on October 13, 2017, a bench trial was conducted as to equitable issues. (Dkt. No. 242). The Court entered a Post-Trial Docket Control Order setting the conduct of post-trial proceedings. (Dkt. No. 243). The Court heard argument on various motions, including the instant Motion on January 17, 2017. (Dkt. No. 293).

The Jury found that Packet Intelligence proved that (i) NetScout infringed the U.S. Pat. Nos. 6,665,725, 6,839,751, and 6,954,789 (the "Asserted Patents"), (ii) that the infringement was willful, (iii) that none of the asserted claims of the Asserted Patents were invalid, (iv) that PI was entitled to damages of $3.5 million from the date of first infringement to March 15, 2016 (the date of the filing of this suit) and $2.25 million for infringement from the March 15, 2016 to the date the verdict was rendered, and (v) that that damages award was intended to be a running royalty. (Dkt. No. 237).

II. DISCUSSION

The jury found that NetScout's infringement of the asserted claims was willful. (Jury Verdict, Dkt. No. 237 at 3). NetScout argues that "no reasonable jury

could have found willfulness in this case," as (i) "PI did not notify NetScout of the asserted patents prior to filing suit," (ii) NetScout's inventorship defense was not a "personal attack[ ] on Mr. Dietz," (iii) the Jury's rejection of all of NetScout's defenses does not establish that infringement was willful, and (iv) "NetScout's conduct has been entirely appropriate and reasonable throughout this case." (Dkt. No. 277 at 3–4). Packet Intelligence notes that "the jury, after weighing all of the evidence, found that NetScout's infringement was 'wanton, malicious, in bad faith, deliberate, consciously wrong, or flagrant.'" (Dkt. No. 280 at 1 (citing Dkt. 237 at 3 (Verdict); Dkt. No. 252 10/13/17 Trial Tr. at 32:1–11 (willfulness jury instructions)). Packet Intelligence argues that "the Court should enter judgment on willfulness," "[b]ecause questions of credibility and motivation relating to willfulness are classic jury issues and that the evidence construed in a light most favorable to PI does not permit a conclusion contrary to the verdict." (*Id.* (citing *Polara Eng'g, Inc. v. Campbell Co.*, 237 F. Supp. 3d 956, 980 (C.D. Cal. 2017) (jury verdicts on willfulness are not advisory)).

The Court holds that the jury's finding of willfulness is more than adequately supported by the evidence adduced at trial including, at least, testimony by NetScout witnesses accusing Mr. Deitz of lying and stealing the patented inventions without having reviewed the patent. (*See*, *e.g.*, Dkt. No. 269-4 at 109-11, 116 ("Q. Okay. So you haven't read the patent? A. I have not. Q. And yet you've come in here and you've decided that Mr. Dietz has lied and stolen about his

inventions? A. Yes."). Additionally, NetScout's infringement has been ongoing since March 15, 2016, when it was put on specific notice of infringement via the filing of the instant suit, (Dkt. No. 1), and continued through at least the time of trial. (*See* Dkt. No. 248, Trial Tr. (10/11/17 Afternoon Session) at 11:13–15 ("Q. And NetScout Texas sells the GeoProbe – GeoProbe products today; is that correct? A. Yes, it is.")). While the Parties dispute whether NetScout was on notice of the '725 Patent before that date,[2] NetScout was on notice at least as of that date and willfulness based on egregious post-filing conduct is permitted. *See*, *e.g.*, *Ericsson Inc. v. TCL Commun. Tech. Holdings, Ltd.*, No. 2:15-cv-00011-RSP, 2017 U.S. Dist. LEXIS 183216, at *18-19 (E.D. Tex. Nov. 4, 2017); *Huawei Techs. Co. v. T-Mobile US, Inc.*, 2017 U.S. Dist. LEXIS 43240, 2017 WL 1129951, at *4 (E.D. Tex. Feb. 21, 2017). This Court "'will not second-guess the jury or substitute [the Court's] judgment for [the Jury's] judgment' where the verdict is supported by substantial evidence." *Arctic Cat Inc. v. Bombardier Recreational Prod. Inc.*, 876 F.3d 1350, 1371 (Fed. Cir. 2017). Accordingly, the Court finds that the jury's finding of willfulness is properly

[2] Indeed Netscout concedes that a PTO examiner notified Tektronix of PI's '725 patent during prosecution of its own patent several years before PI filed this lawsuit. (Dkt. No. 277 at 2). The Court notes the district court opinions that hold that "mere citation to a patent number in correspondence from the Patent Office is legally insufficient to support a finding of willfulness." *Radware, Ltd. v. F5 Networks, Inc.*, No. 5:13-CV-02024-RMW, 2016 WL 4427490, at *4 (N.D. Cal. Aug. 22, 2016) (collecting cases). The Court need not address this issue at this time.

supported and shall **ENTER** the verdict of willfulness in the Final Judgement (issued concurrently).

A properly supported finding of willfulness "invites the Court to exercise its discretion to determine whether enhanced damages are appropriate under 35 U.S.C. § 284." *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, No. 14-cv-912-JRG, Final Judgment Order, Dkt. No. 47 at 1 (E.D. Tex. Nov. 1, 2016). In addition to determining whether to award enhanced damages, courts also have discretion as to the amount of damages to be awarded. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1932 (2016) ("District courts enjoy discretion in deciding whether to award enhanced damages, and in what amount"); *see also Halo*, 136 S. Ct. at 1926 ("§ 284 allows district courts to punish the full range of culpable behavior."). The Court may increase damages up to three times the damages assessed by the Jury. *See Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996). To determine whether and how much to enhance damages, courts consider the "*Read* factors:"

> (1) "whether the infringer deliberately copied the ideas or design of another";
>
> (2) "whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed";
>
> (3) "the infringer's behavior as a party to the litigation";
>
> (4) "[d]efendant's size and financial condition";

(5) "[c]loseness of the case,"

(6) "[d]uration of defendant's misconduct";

(7) "[r]emedial action by the defendant";

(8) "[d]efendant's motivation for harm"; and

(9) "[w]hether defendant attempted to conceal its misconduct."

Read Corp. v. Portec Inc., 970 F.2d 816, 826–27 (Fed. Cir. 1992), *abrogated in part on other grounds by Markman v. Westview Instr. Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc). The Court addresses each factor in turn.

II.A. Copying [*Read* Factor 1]

Packet Intelligence concedes that this factor is not present. (Dkt. No. 280 at 5 ("*Read* 1 (copying) and 8 (desire to harm) are not present * * * ")). Accordingly, this factor weighs against enhancement.

II.B. Good Faith [*Read* Factor 2]

Packet Intelligence argues that "[t]he jury's willfulness verdict reflects the evidence at trial that NetScout never established a good-faith belief of invalidity or non-infringement." (Dkt. No. 269 at 10). In support, PI points to alleged "personal attacks" on Mr. Deitz accusing him of stealing NetScout's invention, "even as these same witnesses admitted to not having read Mr. Deitz's patents," and that the one NetScout witnesses who testified he had read PI's patents, Mr. Waldbusser, was biased against PI and, essentially,

bought and paid for. (*Id.* at 11). PI argues that this "indicates that NetScout had never formed a good-faith belief that it did not infringe PI's patents, and instead contrived a story about Mr. Dietz stealing his invention from others in order to detract from its own willful infringement." (*Id.*) This is the sole basis advanced by PI in support of its contention that NetScout lacked good faith.

NetScout responds that "[a]s soon as PI filed its Complaint, NetScout promptly investigated the patents and formed its non-infringement and invalidity defenses in good faith." (Dkt. No. 277 at 5). NetScout details the good-faith basis for its invalidity and unenforceability defenses including the alleged questionable inventorship of Mr. Deitz, the alleged anticipation of the asserted patents by the "industry-standard 'TrackSessions' functionality" and the IETS's RMON Working Group RMON1 and RMON2 standards. (*Id.* at 5–6). NetScout also details its good-faith belief of non-infringement in that the accused G10 and GeoBlade products allegedly "do not have the ability to identify conversational flows—i.e., the ability to join together connections related to an activity—which is required by every asserted claim." (*Id.* at 7).

The Court does not perceive this case as one wherein the defenses mounted by NetScout are inappropriately weak to begin with, even though the Court agrees with PI that at least the inventorship defense completely collapsed during testimony at trial. However, incredibly effective cross-examination, which the jury credited and relied upon in rejecting the position

whole-cloth, does not negate NetScout's good-faith basis in raising the issue in the first place. Indeed, enabling such searching examination of the rationale underlying the various claims and defenses is precisely why submission of such questions to determination by the jury is so important and enshrined in the Nation's Constitution. The jury's rejection of the invalidity and infringement argument similarly do not undercut the propriety of NetScout's good-faith belief in those position. *See Edindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, No. 2:15-cv-1202-WCB, 2017 WL 3034655, at *10 (E.D. Tex. July 18, 2017) (Bryson, J., sitting by designation); *Finjan, Inc. v. Blue Coat Sys., Inc.*, No. 13-CV-03999-BLF, 2016 WL 3880774, at *16 (N.D. Cal. July 18, 2016) ("When this lawsuit was filed, Blue Coat ha[d] reasonable good-faith non-infringement and invalidity defenses, they were not rendered unreasonable because Finjan prevailed at trial."). This is not the sort of case where the defendant infringed in the face of so obvious a risk of infringement that enhancement is appropriate. *Cf WesternGeco L.L.C. v. ION Geophysical Corp.*, 837 F.3d 1358, 1362 (Fed. Cir. 2016) (noting that *Halo* "emphasized that subjective willfulness alone—i.e., proof that the defendant acted despite a risk of infringement that was either known or so obvious that it should have been known to the accused infringer,"—can support an award of enhanced damages.") (citing *Halo*, 136 S. Ct. at 1930) (internal quotations omitted).

Accordingly, the Court finds this factor to weigh against enhancement.

II.C. Litigation Behavior [*Read* Factor 3]

"Typically, 'litigation misconduct' refers to bringing vexatious or unjustified suits, discovery abuses, failure to obey orders of the court, or acts that unnecessarily prolong litigation." *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 859 (Fed. Cir. 2010).

Packet Intelligence argues that "nom the beginning of this litigation to the present, NetScout has engaged in a pattern of misconduct such that this factor strongly supports enhancing damages against NetScout." (Dkt. No. 269 at 5). Packet Intelligence argues that NetScout "threatened" it for bringing this action, calling the asserted claims "baseless" and threatening to "invalidate[ ] [PT's] patent portfolio" and then "pursue all available remedies." (*Id.*) Finally, PI further argues that NetScout did not participate in mediation in this case in good-faith, contrary to this Court's mediation order, participating through an in-house lawyer with no advance authorization to consider settlements, a fact it alleges it learned through deposition of NetScourt's CEO months later. (*Id.* at 6). PI argues that NetScout violated PI's MIL No. 5 by referring to the geographic origin of Tektronix as being "Texas" or "Plano." (*Id.* at 7). PI points to NetScout's alleged "media campaign" targeted to undermine the credibility of PI's lawsuit, (*id.* at 7-8), and alleged discovery abuses, (*Id.* at 8), pointing to the Court's granting of Motions to Compel (Dkt. No. 94) but not recounting the fact that the Court denied imposing any sanctions in conjunction with its grant of those motions.

NetScout responds that the "threats" are better seen as a "intent to vigorously defend against PI's allegations." (Dkt. No. 277 at 8). As to the mediation, NetScout's Chief IP Counsel attended the March 28, 2017, mediation on NetScout's behalf; NetScout further notes that "an unwillingness to pay money is not litigation misconduct." (*Id.* at 9). NetScout argues that both sides referenced NetScout's employees in Plano and that both sides received warning to adhere to the Court's MIL ruling. (*Id.*) NetScout also notes that issuing press releases defending itself from allegations are "typical." The alleged discovery abuses are defended as resulting in an admonition from the Court that, "[a]s is very often the case in these situations, the Court's persuaded that neither side has completely clean hands in this situation that we have before us." (*Id.* at 10; Dkt. No. 98, Hr'g Tr. at 57:23–58:1).

The Court does not find evidence of litigation misconduct in NetScout's actions in this case. Litigation tactics do not cross the line from zealous advocacy into abusive gamesmanship merely by being "vigorously employed and at times not well received, by the jury or the court." *Barry v. Medtronic, Inc.*, 250 F. Supp. 3d 107, 117 (E.D. Tex. 2017); *see also*, *Power Integrations, Inc. v. Fairchild Semiconductor Int 'l, Inc.*, Case No. 09-cv-05235-MMC, 2017 WL 130236, at *4 (N.D. Cal. Jan. 13, 2017) ("[H]aving reviewed the asserted misconduct on which [the patentee] relies, [the court] finds 'this was a hard fought case but did not cross the line into improper conduct.") (quoting *Finjan*, 2016 WL 3880774, at *16); *Mass Engineered Design, Inc. v.*

Ergoton, Inc., 633 F. Supp. 2d 361, 391-92 (E.D. Tex. 2009) (no enhancement where alleged misconduct was not "particularly egregious or overwhelmingly supported by the evidence"); *cf. Imperium IP Holdings (Cayman), Ltd. v. Samsung Elecs. Co.*, 203 F. Supp. 3d 755, 763-64 (E.D. Tex. 2016) (trebling damages where the court found that defendants "made multiple misrepresentations under oath" in their sworn interrogatories, gave false testimony to the jury on key topics, and failed to produce key documents—despite repeated requests for them—until the fourth day of trial). The "misconduct" identified by Packet Intelligence is more properly characterized as bravado coupled with highly aggressive marketing, not threats, intimidation, and "egregious litigation behavior" that PI would have this Court ascribe to the conduct in this case. This factor weighs against enhancement, but only slightly.

II.D. Size and Financial Condition [*Read* Factor 4]

Defendant's size and financial condition should be viewed both relative to the Plaintiff and also individually to ensure that enhanced damages would "not unduly prejudice the [defendant's] non-infringing business." *Krippelz v. Ford Motor Co.*, 670 F. Supp. 2d 815, 822 (N.D. Ill. 2009) (internal citations omitted); *Read*, 970 F.2d at 827.

Packet Intelligence argues that "NetScout is a global company with over 3,000 employees [with] [i]ts

most recent publicly-reported annual revenue [at] nearly $1.2 billion, and its free cash flow this year [reported at] over $195 million." (Dkt. No. 269 at 12 (citations omitted)). Accordingly, Packet Intelligence argues, "NetScout's financial condition [ ] suggests that an award of enhanced damages would not impair its financial well-being," and that "[t]here is also no evidence in the record that NetScout's 'operations or business would be severely jeopardized by an award of enhanced damages.'" (*Id.* citing *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 762 F. Supp. 2d 710, 722 (D. Del. 2011) (awarding double damages); *Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950, 2017 U.S. Dist. LEXIS 55846, at *23–26 (M.D. Fla. Apr. 6, 2017) (awarding treble damages where defendant "has the financial wherewithal to endure the sanction of enhanced damages")).

NetScout argues that this factor should only come into play, and only against enhancement, when other *Read* factors strongly support enhancement. (Dkt. No. 277 at 11). The Court does not believe this factor is so limited—to ignore the size of infringing firms would be to not properly ensure that the damages assessed for infringement found to be willful are sufficient "to **punish** the full range of culpable behavior." *Halo Elecs.*, 136 S. Ct. at 1926. *But see Erfindergemeinschaft*, 2017 WL 3034655, at *10 (defendant's "size and financial condition, while sufficient to weather an award of an enhanced royalty, does not by itself support UroPep's contention that Lilly has engaged in conduct

deserving" enhancement). Accordingly, the Court finds this factor supports enhancement.

II.E. Closeness of the Case [*Read* Factor 5]

Packet Intelligence argues that "[t]his was not a close case," as [t]he jury returned a verdict in a few hours in the liability phase, finding for PI on every issue, including willfulness." (Dkt. No. 269 at 13). PI submits that "NetScout's non-infringement defense was presented as an afterthought; instead, it focused its defense at trial on a smear campaign against PI and the patents' inventor, in an effort to persuade the jury to invalidate PI's patents," and that "NetScout did not even bother to put on a damages defense." (*Id.*)

While NetScout argues that the case was a close one, and cites authority for the proposition that a jury's verdict against a defendant does not automatically mean this factor weighs in the plaintiff's favor,[3] the Court does not view this as a particularly close case, especially when considering the evidence and testimony adduced at trial. Even though NetScout believes this was a close case because it presented what it views as a compelling case of non-infringement and invalidity, the sole judges of the facts of this case, the jury, did

[3] "That the jury did not ultimately find for [NetScout] does not automatically mean that this factor weighs in Plaintiff['s] favor." *Hako-Med USA, Inc. v. Axiom Worldwide, Inc.*, No. 06-CV-1790, 2009 WL 3064800, at *10 (M.D. Fla. Sept. 22, 2009); *see also Emcore Corp. v. Optium Corp.*, No. CV-7-326, 2010 WL 235113, at *3 (W.D. Pa. Jan. 15, 2010) ("Simply because Plaintiffs won does not mean this case was not close.").

not arrive at a verdict which indicates a close case. The Jury found the asserted patents to be not invalid and willfully infringed. (Dkt. No. 237). In addition, the jury awarded Packet Intelligence $5.75 million in damages; NetScout did not present any testimony on an alternative damages theory, relying on cross-examination of PI' s damages expert alone. The jury retired to deliberate at 10:36 am and returned its verdict shortly before 2 pm. (Dkt. No. 242 (Trial Minutes)). This case was not very close; to the extent that any inference may be drawn in NetScout's favor from the jury verdict, only the 2/3rds reduction in the damages award from PI's damages demand supports NetScout's position. *See SSL Servs., LLC v. Citrix Sys., Inc.*, No. 08-CV-158-JRG, 2012 WL 4092449, at *5 (E.D. Tex. Sept. 17, 2012), *vacated and remanded on other grounds*, 769 F.3d 1073 (Fed. Cir. 2014) (factor favored enhancement where jury found that defendant willfully infringed and that the patent was not invalid and awarded a $10 million lump-sum award). That a defendant's position on various defenses "may have required resolution at trial * * * does not dictate that the case was close." *PPC Broadband, Inc. v. Corning Optical Commc'ns RF*, LLC, No. 5:11-cv-761-GLS-DEP, 2016 WL 6537977, at *7 (N.D.N.Y. Nov. 3, 2016), *appeal dismissed*, No. 16-4106, 2016 WL 10655596 (2d Cir. Dec. 12, 2016).

Accordingly, the Court finds that this factor weighs in favor of enhancement. *WCM Indus., Inc. v. IPS Corp.*, No. 2016-2211, 2018 WL 707803, at *10 (Fed. Cir. Feb. 5, 2018) ("[T]he closeness of the case was also in WCM's favor because the jury verdict was not a

close call and the evidence strongly supported WCM's case.").

II.F. Duration of Misconduct [*Read* Factor 6]

Packet Intelligence argues that NetScout's duration of infringement is "six years and counting" pointing to the PTO's citation of the '725 patent in prosecution of one of NetScout's own patents. That argument constitutes basically the whole of Packet Intelligence's argument on this factor.

NetScout disputes this as a proper basis for pre-suit knowledge regarding the asserted patents or of PI's infringement allegations. There is no question, however, of NetScout's knowledge, starting at least from the date of the commencement of this suit. (Dkt. No. 1). Further, there is no indication on the record that NetScout has ceased its infringement since the jury rendered its verdict. (Dkt. No. 280 at 3 ("NetScout does not even address, and thus concedes, that it has not taken remedial measures and continues to infringe.")) Accordingly, NetScout's continued infringement has lasted over two years and five months and continues through today.

In considering this factor, the Court must weigh the period of time against NetScout's pre-suit notice and continued infringement. There is uncertainty among courts as to the weight these facts are given. *Compare Broadcom Corp. v. Qualcomm Inc.*, No. SACV 05-467-JVS, 2007 WL 2326838, at *3 (C.D. Cal. Aug. 10, 2007) ("The length of [the infringer's] infringement

(approximately two years), coupled with the fact that infringement continued after [the patentee] filed its suit, supports an increase in damages."), *vacated on other grounds*, 2007 WL 8030058 (C.D. Cal. Nov. 21, 2007), *and PPC Broadband, Inc. v. Corning Optical Commc'ns RF, LLC*, No. 5:11-CV-7-61 (GLS/DEP), 2016 WL 6537977, at *8 (N.D.N.Y. Nov. 3, 2016), *appeal dismissed*, No. 16-4106, 2016 WL 10655596 (2d Cir. Dec. 12, 2016) ("[C]ontinuing to sell the infringing products after notice of infringement and during the course of litigation supports enhancement."), *with Barry v. Medtronic, Inc.*, No. 1:14-cv-104, 2017 WL 1536492, at *8 (E.D. Tex. Apr. 20, 2017) (holding that infringement for more than two years—from March 2010 through 2013—did not support enhancement) *and Spectralytics, Inc. v. Cordis Corp.*, 834 F. Supp. 2d 920, 928 (D. Minn. 2011), *aff'd*, 485 F. App'x 437 (Fed. Cir. 2012) (holding that willful infringement for "about one [] year[]" was a "relatively short" "period of willful infringement" and did "not weigh in favor of enhanced damages."). Given that NetScout's period of willful infringement, including the period during the course of litigation, spans at least two years and continues without any indication of remediation, this factor favors enhancement.

II.G. Remedial Action [*Read* Factor 7]

Packet Intelligence argues that "NetScout has 'not taken any remedial action to remove its infringing product from the marketplace or alter it to cease the infringement since the complaint was filed * * *

despite a jury verdict finding willful infringement.'" (Dkt. No. 269 at 12 (quoting *Veracode, Inc. v. Appthority, Inc.*, 137 F. Supp. 3d 17, 85-86 (D. Mass. 2015); citing *Bos. Sci. Corp. v. Cordis Corp.*, 838 F. Supp. 2d 259, 280 (D. Del. 2012), *aff'd*, 497 F. App'x 69 (Fed. Cir. 2013) (same); *Finjan Software, Ltd. v. Secure Computing Corp.*, No. 06-369 (GMS), 2009 U.S. Dist. LEXIS 72825, at *51 (D. Del. Aug. 18, 2009) ("[Defendant] has continued to manufacture and sell its accused * * * products in the marketplace, despite the pendency of this litigation. The court, therefore, finds that this factor weighs in favor of enhanced damages.").

NetScout does not argue that it has undertaken any remedial measures. (*See generally* Dkt. Nos. 277, 288). Accordingly, because there is no evidence of remedial action, only preventative action, this factor clearly weighs in favor of enhancement.

II.H. Motivation for *Harm* [*Read* Factor 8]

Packet Intelligence concedes that this factor is not present. (Dkt. No. 280 at 5 ("*Read* 1 (copying) and 8 (desire to harm) are not present")). Accordingly, this factor weighs against enhancement.

II.I. Concealment of Misconduct [*Read* Factor 9]

Packet Intelligence argues that NetScout attempted to conceal its misconduct by arguing that it "was not aware of the asserted patent * * * prior to this

case" when Tektronix, which NetScout owns, had previously cited one of the asserted patents in one of its own patents that issued in 2008. (Dkt. No. 269 at 12–13). Additionally, PI points to NetScout's press releases as being "designed to shift blame for its infringing conduct." (*Id.* at 13).

NetScout argues that it has, "at all times, openly sold and marketed the accused products as having the allegedly infringing features." (Dkt. No. 277 at 14–15 (citing *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, No. 09-CV-05235, 2017 WL 130236, at *5 (N.D. Cal. Jan. 13, 2017) (defendant "did not attempt to conceal its infringing conduct" where its "published datasheets describe the features [plaintiff] challenges"); *Illinois Tool Works, Inc. v. MOC Prods. Co.*, 09-CV-1887, 2013 WL 12064544, at *6 (S.D. Cal. Oct. 25, 2013) ("That MOC took no measures to conceal its infringement clearly weighs against enhancement of damages" because "MOC openly displayed and sold the infringing UIT")). As to the denial of pre-suit knowledge, NetScout did not somehow "conceal" the patent citations, nor did NetScout's press release, which publicly set out the position that NetScout maintained throughout this litigation, somehow constitute concealment. (Dkt. No. 277 at 15).

The Court agrees. Packet Intelligence has not demonstrated any concealment on NetScout's behalf; that a party does not admit to infringement does not mean they are to be charged with concealment of the same following a jury finding the opposite. This factor weighs against enhancement.

III. CONCLUSION

The *Read* factors provide "useful guideposts" in the court's exercise of discretion but are not binding or exhaustive. *Imperium*, 203 F. Supp. 3d at 763–64; *see also Finjan v. Blue Coat Sys.*, Case No. 13-cv-0399-BLF, 2016 WL 3880774, at *16 (N.D. Cal. July 18, 2016). "While the *Read* factors remain helpful to the [c]ourt's execution of its discretion, an analysis focused on egregious infringement behavior is the touchstone for determining an award of enhanced damages rather than a more rigid, mechanical assessment." *Imperium*, 203 F. Supp. 3d at 763; *accord Halo*, 136 S. Ct. at 1934 ("we eschew any rigid formula for awarding enhanced damages under § 284").

The Court has considered each of the *Read* factors as guideposts in its determination as to whether enhancement is appropriate in this case.[4] Having considered the factors, and mindful of the Court's obligation to focus its analysis on determining whether egregious infringement behavior is present, the Court finds that such behavior is present and enhancement is appropriate on that basis. "[W]hen only a subset of factors weigh in favor of enhanced damages a court should

[4] Summary of the *Read* factor holdings: (1) copying: "against enhancement"; (2) good faith belief: "against enhancement"; (3) litigation misconduct: "against enhancement, but only slightly"; (4) size and financial condition: "supports enhancement"; (5) closeness of the case: "in favor of enhancement"; (6) duration of misconduct "favors enhancement"; (7) remedial action: "clearly weighs in favor of enhancement"; (8) motivation for harm: "against enhancement"; (9) concealment of misconduct: "against enhancement".

award less than treble damages." *WCM Indus., Inc. v. IPS Corp.*, No. 2016-2211, 2018 WL 707803, at *10 (Fed. Cir. Feb. 5, 2018). As such, the Court finds that less than treble damages are appropriate in this case.

Accordingly, the Court hereby **GRANTS** Packet Intelligence's Motion for Enhanced Damages, having found enhancement to be appropriate in this case and **ORDERS** enhanced damages in the amount of $2.8 million dollars be awarded to Packet Intelligence, in addition to the jury's compensatory award.

The Court finds that Packet Intelligence's arguments regarding exceptionality, attorneys' fees, and costs are premature, and **DENIES** them without prejudice to be refiled following entry of Final Judgment. (Dkt. No. 269 at 15). The Court **GRANTS** the Motion as to the entry of Final Judgment and does so concurrently with this Order.

So ORDERED and SIGNED this 7th day of September, 2018.

/s/ Rodney Gilstrap
RODNEY GILSTRAP
UNITED STATES
DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

PACKET INTELLIGENCE LLC, *Plaintiff*, v. NETSCOUT SYSTEMS, INC., TEKTRONIX COMMUNICATIONS, TEKTRONIX TEXAS, LLC, *Defendants*.	§ § § § § § § § § § § §	CIVIL ACTION NO. 2:16-CV-00230-JRG

FINAL JUDGMENT

(Filed Sep. 7, 2018)

A jury trial commenced in this case on October 10, 2017 and evidence closed on October 13, 2017. (Dkt. Nos. 239-42.). Following submission of the evidence to the jury and while the jury deliberated, a bench trial was conducted as to the equitable issues and concluded on October 13, 2017. (Dkt. No. 242.) The jury returned a verdict on October 13, 2017, finding that Defendants NetScout Systems, Inc., Tektronix Communications, and Tektronix Texas, LLC (collectively "Defendant" or "NetScout") willfully infringed Claims 10 and 17 of U.S. Patent No. 6,665,725, Claims 1 and 5 of U.S. Patent No. 6,839,751, and Claims 19 and 20 of U.S. Patent No. 6,954,789 (collectively the "Asserted Claims"); that none of the Asserted Claims were invalid; and that

Plaintiff Packet Intelligence LLC ("Plaintiff' or "Packet Intelligence") was entitled to damages in the amount of $5.75 million dollars as a running royalty. (Dkt. No. 237.)

Pursuant to Rule 58 of the Federal Rules of Civil Procedure, in accordance with the jury's unanimous verdict and the entirety of the record, the Court hereby **ORDERS** and **ENTERS JUDGMENT** as follows:

1. Defendant NetScout has directly infringed the Asserted Claims.

2. The Asserted Claims are not invalid.

3. Plaintiff is hereby **AWARDED COMPENSATORY DAMAGES** against Defendant and shall accordingly have and recover from Defendant the sum of $5,750,000 U.S. Dollars.

4. Plaintiff Packet Intelligence is the prevailing party.

5. As explained in the concurrently issued Order on Plaintiff's Motion for Enhanced Damages and Entry of Judgment and pursuant to 35 U.S.C. § 284, Plaintiff is hereby **AWARDED ENHANCED DAMAGES** against Defendant and shall further have and recover from Defendant the sum of $2,800,000 U.S. Dollars.

6. As explained in the concurrently issued Order on Plaintiff's Motion for Pre- and Post-Judgment Interest and pursuant to 35 U.S.C. § 284, Plaintiff is **AWARDED PREJUDGMENT INTEREST** in the amount calculated at the five-year U.S. Treasury Bill rate,

compounded monthly, adjusting the effective rate with each and every change in said five-year U.S. Treasury Bill rate from the date of first infringement.

7. As explained in the concurrently issued Order on Plaintiff's Motion for Pre- and Post-Judgment Interest and pursuant to 28 U.S.C. § 1961, the Court **AWARDS PLAINTIFF POST-JUDGMENT INTEREST** on all sums awarded herein, at the statutory rate, from the entry of this Final Judgment until paid.

8. As explained in the concurrently issued Order on Plaintiff's Motion for Enhanced Damages and Entry of Judgment and pursuant to 35 U.S.C. § 285, the Court finds the case is **NOT EXCEPTIONAL.**

9. As explained in the concurrently issued Order on Plaintiffs Motion for Ongoing Royalty, **THE ONGOING ROYALTY RATE IN THIS CASE IS HEREBY SET AT 1.55%** of the revenue received by Defendant produced by the post-verdict infringing conduct (use, sales, offers for sale, or importation into the United States) of the accused G10 and GeoBlade products through the life of the asserted patents.

10. As reflected in the Court's previously issued Findings of Fact and Conclusions of Law (Dkt. No. 298), the Court concludes that Defendant has failed to show that the Asserted Claims are ineligible under § 101.

11. As explained in the concurrently issued Findings of Fact and Conclusions of Law, the Court concludes that Defendant has failed to show that the Asserted Claims are barred under the doctrines of either unclean hands or inequitable conduct, and accordingly the affirmative defenses of unclean hands and inequitable conduct are denied and dismissed.

12. All other relief requested by either party and not specifically awarded herein is **DENIED**. The Clerk is **DIRECTED TO CLOSE** the above referenced case.

So ORDERED and SIGNED this 7th day of September, 2018.

/s/ Rodney Gilstrap
RODNEY GILSTRAP
UNITED STATES
DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

PACKET INTELLIGENCE LLC,	§	
	§	
Plaintiff,	§	
	§	
v.	§	**CIVIL ACTION NO. 2:16-CV-00230-JRG**
NETSCOUT SYSTEMS, INC., TEKTRONIX COMMUNICATIONS, TEKTRONIX TEXAS, LLC,	§	
	§	
Defendants.	§	

MEMORANDUM OPINION AND ORDER

(Filed May 31, 2019)

Before the Court is Defendants NetScout Systems, Inc. and NetScout Systems Texas, LLC's (f/k/a Tektronix Texas, LLC d/b/a Tektronix Communications) (collectively, "NetScout") Rule 50(b) Renewed Motion for Judgment as a Matter of Law of No Infringement (Dkt. No. 314) and Rule 50(b) Renewed Motion for Judgment as a Matter of Law of Invalidity Under 35 U.S.C. §§ 102(a), 102(f), and 101 (Dkt. No. 317). The Court heard oral argument on the motions on May 21, 2019. (Dkt. No. 339.) Having considered the motions, briefing, the parties' oral arguments, and trial record, the Court is of the opinion that each motion should be and hereby is **DENIED**.

I. BACKGROUND

Plaintiff Packet Intelligence LLC ("PI") sued NetScout for patent infringement on March 15, 2016. (Dkt. No. 1.) PI alleged that NetScout's GeoProbe 10 ("G10") and GeoBlade (collectively, the "Accused Products") literally[1] infringe Claims 10 and 17 of U.S. Patent No. 6,665,725 (the "'725 Patent"); Claims 1 and 5 of U.S. Patent No. 6,839,751 (the "'751 Patent"); and Claims 19 and 20 of U.S. Patent No. 6,954,789 (the "'789 Patent") (collectively, the "Asserted Claims" or "Patents-in-Suit").[2] (*Id.*) PI also alleged willful infringement and sought pre-suit damages. (*Id.*) NetScout asserted several defenses, including invalidity under 35 U.S.C. §§ 101, 102, 103, and 112; failure to properly name all inventors under 35 U.S.C. § 102(f); inequitable conduct; and unclean hands. (Dkt. No. 205 at 9–11.) The case proceeded to trial, and the jury returned a verdict in favor of PI, finding that the Asserted Claims were willfully infringed, none of the Asserted Claims were invalid, and that PI was entitled to damages in the amount of $5.75 million as a running royalty. (Dkt. No. 237.) Following submission of the evidence to the jury, the Court conducted a bench trial as to the equitable issues and concluded that NetScout had failed to show that PI's claims were barred under the doctrines of unclean hands or inequitable conduct.

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[1] PI did not assert infringement under the theory of doctrine of equivalents.

[2] In the complaint, PI also alleged infringement of U.S. Patent Nos. 6,771,646 and 6,651,099, but withdrew its claims relating to those patents before trial. (Dkt. No. 132 at 13.)

(Dkt. Nos. 242, 306.) The Court entered final judgment on September 7, 2018, designating PI as the prevailing party. (Dkt. No. 307 at 2.)

NetScout now moves pursuant to Federal Rule of Civil Procedure 50(b) for an order that (1) the Accused Products, G10 and GeoBlade, do not infringe the Asserted Claims (Dkt. No. 314) and (2) the Asserted Claims are invalid under 35 U.S.C. §§ 102(a), 102(f), and 101 (Dkt. No. 317).[3]

II. LEGAL STANDARDS

A. Federal Rule of Civil Procedure 50(b)

Judgment as a matter of law is appropriate if "the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for [a] party" on an issue. Fed. R. Civ. P. 50(a)(1). "The grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district would usually lie." *Finisar Corp. v. DirectTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). The Fifth Circuit "uses the same standard to review the verdict that the district court used in first passing on the motion." *Hiltgen v. Sumrall*, 47 F.3d 695, 699 (5th Cir. 1995). Thus, "a jury verdict must be upheld unless 'there is no legally sufficient evidentiary basis for a reasonable jury to find as the jury did.'" *Id.*

[3] NetScout only raises 35 U.S.C. §101 "to remove any doubt that that [*sic*] its invalidity arguments based upon 35 U.S.C. § 101 are preserved for appeal." (Dkt. No. 317 at 20.)

at 700 (quoting Fed. Civ. R. P. 50(a)(1)). The jury's verdict must be supported by "substantial evidence" for each claim. *Am. Home Assurance Co. v. United Space All.*, 378 F.3d 482, 487 (5th Cir. 2004).

Under Fifth Circuit law, the court is to be "especially deferential" to a jury's verdict and must not reverse the jury's findings unless they are not supported by substantial evidence. *Baisden v. I'm Ready Prods., Inc.*, 693 F.3d 491, 499 (5th Cir. 2012). "Substantial evidence is defined as evidence of such quality and weight that reasonable and fair-minded men [and women] in the exercise of impartial judgment might reach different conclusions." *Threlkeld v. Total Petroleum, Inc.*, 211 F.3d 887, 891 (5th Cir. 2000). The moving party is entitled to judgment as a matter of law unless "the evidence points so strongly and so overwhelmingly in favor of the nonmoving party that no reasonable juror could return a contrary verdict." *Int'l Ins. Co. v. RSR Corp.*, 426 F.3d 281, 296 (5th Cir. 2005) (citing *Cousin v. Tran Union Corp.*, 246 F.3d 359, 366 (5th Cir. 2001)). However, "[t]here must be more than a mere scintilla of evidence in the record to prevent judgment as a matter of law in favor of the movant." *Arismendez v. Nightingale Home Health Care, Inc.*, 493 F.3d 602, 606 (5th Cir. 2007).

In evaluating a motion under Rule 50, the court must "draw all reasonable inferences in the light most favorable to the verdict and cannot substitute other inferences that [the court] might regard as more reasonable." *E.E.O.C. v. Boh Bros. Const. Co., L.L.C.*, 731 F.3d 444, 451 (5th Cir. 2013) (internal citation omitted).

"[T]he court must give credence to the evidence favoring the nonmovant as well as that 'evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that that evidence comes from disinterested witnesses.'" *See Ellis v. Weasler Eng'g Inc.*, 258 F.3d 326, 337 (5th Cir. 2001) (quoting 9A WRIGHT & MILLER § 2529). However, in doing so, the court may not make credibility determinations or weigh the evidence, as those are solely functions of the jury. *See id.* (quoting *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150–51 (2000)).

B. Infringement

To prove patent infringement under 35 U.S.C. § 271, a plaintiff must show by a preponderance of the evidence the presence of every element, or its equivalent, in the accused product or service. *Lemelson v. United States*, 752 F.2d 1538, 1551 (Fed. Cir. 1985). First, the claim must be construed to determine its scope and meaning; and second, the construed claim must be compared to the accused device or service. *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1129 (Fed. Cir. 2011) (citing *Carroll Touch, Inc. v. Electro Mech. Sys., Inc.*, 15 F.3d 1573, 1576 (Fed. Cir. 1993)). "A determination of infringement is a question of fact that is reviewed for substantial evidence when tried to a jury." *ACCO Brands, Inc. v. ABA Locks Mfr. Co.*, 501 F.3d 1307, 1311 (Fed. Cir. 2007).

C. Invalidity

An issued patent is presumed valid. 35 U.S.C. § 282(a). To rebut this presumption, a party must prove invalidity by clear and convincing evidence. *Id.* ("The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity."); *Microsoft Corp. v. 141 Ltd. P'ship*, 564 U.S. 91, 95 (2011) ("We consider whether § 282 requires an invalidity defense to be proved by clear and convincing evidence. We hold that it does.").

i. Anticipation

A patent claim is invalid as anticipated if "the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent." 35 U.S.C. § 102(a) (2012) (pre-AIA). "A claim is anticipated only if each and every element is found within a single prior art reference, arranged as claimed." *Virnetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1323 (Fed. Cir. 2014). Anticipation is a factual question reviewed for substantial evidence. *Id.*

ii. Inventorship

Under 35 U.S.C. § 102(f) (pre-AIA), "[a] person shall be entitled to a patent unless—he did not himself invent the subject matter sought to be patented." 35 U.S.C. § 102(f). "[T]his subsection mandates that a patent accurately list the correct inventors of a claimed

invention" and "failure to name them renders a patent invalid." *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1349–50 (Fed. Cir. 1998). The Federal Circuit has explained that "[d]etermining 'inventorship' is nothing more than determining who conceived the subject matter at issue." *In re VerHoef*, 888 F.3d 1362, 1365 (Fed. Cir. 2018) (internal citation omitted). "When an invention is made jointly, the joint inventors need not contribute equally to its conception." *Id.* at 1366. All that is required is that the joint inventor made a significant contribution to the conception or reduction to practice of the invention. *Id.* (quoting *Pannu*, 155 F.3d at 1351). Proper inventorship is reviewed for substantial evidence. *Id.* at 1365.

III. DISCUSSION

A. The Patents-in-Suit

The Patents-in-Suit are directed to monitoring and classifying information that is transmitted over a network. (Dkt. No. 245, 10/17/17 P.M. Trial Tr. at 102:12–14.) *See also* '789 Patent at 1:48–51 ("The present invention relates to computer networks, specifically to the real-time elucidation of packets communicated within a data network, including classification according to protocol and application program."); '751 Patent at 1:38–41 (same); '725 Patent at 1:41–44 (same). Information is generally transmitted over a network via groups of "packets" that flow from one connection point to another. (Dkt. No. 244, 10/17/17 A.M. Trial Tr. at 51:11–52:13.) For example, to display an

advertisement on a webpage, a request is sent over the Internet (the network) from the user's device (first connection point) to the server (second connection point). The server responds to the request by delivering the appropriate information in the form of packets back to the device. This singular flow of packets between the user and the server is called a "connection flow." *See, e.g.*, '789 Patent 2:41–43 ("The term 'connection flow' is commonly used to describe all the packets involved with a single connection."); (Dkt. No. 245, 10/17/17 P.M. Trial Tr. at 109:15–19 (Dr Almeroth, PI's infringement expert, explained that a "connection flow" is "kind of one sequence of requests and responses" and "can involve multiple requests over the same connection".).)

Transmitting information over a network usually involves transferring packets across multiple connection flows. (Dkt. No. 245, 10/17/17 P.M. Trial Tr. at 108:23–111:12.) For example, if a user opens Facebook on her phone, multiple requests will be sent from the phone to individual servers to access different pieces of information that are necessary to fill in the entire webpage—e.g., a request to display images of the user's news feed, a request to play a video, a request to display an advertisement. (*Id.*) The individual servers will then respond to those requests by sending the appropriate packets of information back to the phone. (*Id.*) Each of those requests and responses are different connection flows that are ultimately assembled for display as a single website by a browser. (*Id*.)

As the number of users and networks have grown over time, there has been a corresponding increase in

the number of services that require multiple servers—and hence, an increase in the number of connection flows transmitted over the network. '789 Patent at 1:55–67. (*See also* Dkt. No. 244, 10/17/17 A.M. Trial Tr. at 53:5–56:16.) To ensure the continued operation of such services, network providers need to determine which flows are related to the same application or online service. (Dkt. No. 244, 10/17/17 A.M. Trial Tr. at 53:5–56:16.) For example, Facebook may generate two different connection flows to display information on the user's device—a first flow in which Facebook is sending pictures and a second flow in which Facebook is sending videos. If the network monitor cannot associate those two flows as belonging to Facebook, then it will have an incomplete view of how much traffic is attributable to that particular online service. (*Id.* at 55:23–56:16 ("[T]hat web page that you're using [is] made up of lots of these different connection flows. And the problem is * * * how do I know that that's all related to that one app or * * * web page* * * *.").)

Network monitors that could recognize packets as belonging to the same connection flow were well-known in the prior art when the Patents-in-Suit were filed. *See, e.g.*, '789 Patent at 2:42–44. (*See also* Dkt. No. 245, 10/10/2017 P.M. Trial Tr. at 181:22–182:8.) However, these prior art monitors could not identify *disjointed* connection flows as belonging to the *same conversational flow. See, e.g.*, '789 Patent at 3:56–59 ("What distinguishes this invention from prior art network monitors is that it has the ability to recognize disjointed flows as belonging to the same

conversational flow."). (*See also* Dkt. No. 245, 10/10/2017 P.M. Trial Tr. at 189:1–5 ("Q. Would you agree that the prior art does not link, in your opinion, conversation—connection flows into conversation flows? A. Yes."); Dkt. No. 248, 10/11/2017 P.M. Trial Tr. at 132:17–138:16; Dkt. No. 250, 10/12/2017 P.M. Trial Tr. at 42:15–48:22.) This inability to associate different connection flows was a crucial limitation in the prior art because applications often transmit data via multiple connection flows. *See* '751 Patent at 3:2–5 ("[P]rior art systems cannot collect some important performance metrics that are related to a complete sequence of packets of a flow or to several disjointed sequences of the same flow in a network."); '725 Patent at 12:29–33 (explaining that using the disclosed inventions reveals "[w]hat may seem to prior art monitors to be some unassociated flow * * * to be a sub-flow associated with a previously encountered sub-flow"); '789 Patent at 15:31–34 (same).

The Patents-in-Suit address this problem and describe how disjointed connection flows can be associated with a single conversational flow to more precisely associate traffic with a particular application or protocol. *See* '789 Patent at 1:48–51 ("The present invention relates to computer networks, specifically to the real-time elucidation of packets communicated within a data network, including classification according to protocol and application program."); '751 Patent at 3:2–5 ("[P]rior-art systems cannot collect some important performance metrics that are related to a complete sequence of packets of a flow or to several

disjointed sequences of the same flow in a network."); '725 Patent at 1:66–2:6 ("Not only should all the packets be detected and analyzed, but for each of these packets the network monitor should determine the protocol (e.g., http, ftp, 11.323, VPN, etc.), the application/use within the protocol (e.g., voice, video, data, real-time data, etc.), and an end user's pattern of use within each application or the application context (e.g., options selected, service delivered, duration, time of day, data requested, etc.)."). (Dkt. No. 245, 10/10/2017 P.M. Trial Tr. at 12:7–23, 102:12–20 ("[W]hat we're talking about * * * [i]dentifying the underlying protocols, the applications that are being used, and the user activity that's caused those packets to flow through the network to try and achieve an understanding about how the network is being used.").)

B. Infringement

At trial, PI alleged, and the jury found, that NetScout's G10 and GeoBlade products practice the Asserted Claims. Specifically, the jury found that the Accused Products literally infringe Claims 10 and 17 of the '725 Patent; Claims 1 and 5 of the '751 Patent; and Claims 19 and 20 of the '789 Patent. (Dkt. No. 237 at 2.)

Pursuant to Rule 50(b), NetScout moves to vacate the verdict. It contends that the Accused Products do not practice what it calls the "conversational flow" limitations and is therefore entitled to judgment as a matter of law of no infringement. (Dkt. No. 314.) NetScout

argues that each Asserted Claim requires associating connection flows into conversational flows. This position stems from (1) PI's repeated assertions before trial that the Asserted Claims require associating packets into conversational flows; (2) this Court's decision finding the claims patent-eligible because they include this requirement; and (3) the Parties' agreed upon construction of "conversational flows," the elements and steps recited in the Asserted Claims, the patents' specifications and intrinsic record, and the named inventors' testimony. (*Id.* at 4–13.) NetScout asserts that PI failed to present any evidence that the Accused Products ever actually associate connection flows into conversational flows. (*Id.* at 16–20.) Instead, PI's infringement expert, Dr. Alermoth, allegedly presented a new theory at trial that the "Asserted Claims do not actually *require* associating or correlating flows of packets into 'conversational flows' and "that the Accused Products still infringe because they store information that '*can be used*' to associate connection flows into 'conversational flows.' " (*Id.* at 1 (emphasis added).) NetScout contends that "Dr. Alermoth's new interpretation, heard for the first time at trial, is not correct" and "impermissibly broadened the scope of the claims to read them onto the Accused Products." (*Id.* at 2.)

NetScout also argues that the only product that supposedly did correlate connection flows into conversational flows was an optional feature that was never used or sold with the Accused Products. (*Id.* at 18–22.) According to NetScout, PI presented evidence that the

Web Page Download Time KPI feature in the Accused Products associates connection flows into conversational flows. (*Id.*) However, Dr. Alermoth admitted at trial that this feature was never used or sold. (*Id.*) As a result, NetScout asserts that no reasonable jury could have found that the Accused Products infringe the Asserted Claims.

The Court has conducted a careful review of the trial record and concludes that "a reasonable jury would * * * have a legally sufficient evidentiary basis to find" infringement. Fed. R. Civ. P. 50(a). For each Asserted Claim, PI's infringement expert, Dr. Alermoth, applied the Court's claim constructions to determine their scope. (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 121:16–123:8.) He then provided the jury a claim-by-claim, element-by-element analysis of how each claim limitation, as construed, reads on the Accused Products. He explained that based on a review of source code, internal documents, and deposition testimony regarding the Accused Products, each element of the Asserted Claims is present in the Accused Products. He began his analysis with Claim 19 of the '789 Patent, which PI told the jury was an "exemplary claim" of the Asserted Claims. (Dkt. No. 244, 10/10/17 A.M. Trial Tr. at 14:23–25; Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 144:4–152:16 (Claim 19 of the '789 Patent).) Dr. Alermoth then testified about the remaining claims, referring back to his testimony on Claim 19 where the limitations were the same and providing additional evidence for new or different limitations. (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 152:17–153:19 (Claim 10 of

the '789 Patent), 155:14–165:20 (Claim 1 of the '751 Patent); 165:24–166:20 (Claim 5 of the '751 Patent), 167:3–176:7 (Claim 10 of the '725 Patent); 176:11–178:7 (Claim 17 of the '725 Patent).)

"For most of [the claim] elements * * * NetScout never challenged Dr. Alermoth's opinion during trial and does not appear to contest them now [on Rule 50(b)]." (Dkt. No. 323 at 2 (citing Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 127:8–134:1, 138:16–144:4).) Rather, NetScout challenges the sufficiency of Dr. Alermoth's testimony regarding "conversational flows" and asserts that such testimony does not support the jury's finding of infringement. (*See* Dkt. No. 314.) Having reviewed the trial record, however, the Court finds that substantial evidence supports the jury's finding that the Accused Products did meet the "conversational flow" limitations.

Most relevant here is Dr. Alermoth's testimony regarding elements 19(d)–(f) of Claim 19 of the '789 Patent. Those elements recite:

> * * * * (d) a memory for storing a database comprising none or more flow-entries for previously encountered conversational flows, each flow-entry identified by identifying information stored in the flow-entry;
>
> (e) a lookup engine coupled to the output of the parser subsystem and to the flow-entry memory and configured to lookup whether the particular packet whose parser record is output by the parser subsystem has a matching flow-entry, the looking up using at least some

> of the selected packet portions and determining if the packet is of an existing flow; and
>
> (f) a flow insertion engine coupled to the flow-entry memory and to the lookup engine and configured to create a flow-entry in the flow-entry database, the flow-entry including identifying information for future packets to be identified with the new flow-entry, the lookup engine configured such that if the packet is of an existing flow, the monitor classifies the packet as belonging to the found existing flow; and if the packet is of a new flow, the flow insertion engine stores a new flow-entry for the new flow in the flow-entry database, including identifying information for future packets to be identified with the new flow-entry* * * *

Claim 19, '789 Patent. Applying the Court's claim constructions, Dr. Alermoth explained what these elements require and how the Accused Products meet each of them.

With respect to element 19(d), Dr. Alermoth testified that "the idea would be that you're keeping track of not only the connection flows, but also the conversational flows. And you do that by keeping a copy of them in the memory." (Dkt. No. 245,10/10/17 P.M. Trial Tr. at 117:18–21.) He stated that the "flow state block" or "FSB" in the Accused Products is "the portion of the memory where the database is stored that contained the flow-entries." (*Id.* at 135:5–7.) He showed the jury "corresponding source code for this called Fsb.c," which "defines the source code in the computer that's used

to—to then track flows." (*Id.* at 135:8–10.) He explained that information stored in the FSB is "a whole number of fields that get associated with a particular flow-entry." (*Id.* at 136:2–5.) He concluded that "the requirement of the claim is to have a memory for storing a database comprising none or more flow-entries" and that he had "shown what the flow-entries are." (*Id.* at 136:21–23.) He further stated that the claim required that such flow-entries be "for previously encountered conversational flows" and that he had similarly "shown * * * some of the information in the flow record that can be used to correlate or associate flow-entries into conversational flows." (*Id.* at 136:24–137:2.) *To confirm that the Accused Products practice the claimed limitations*, Dr. Alermoth described an optional feature—not itself accused of infringement—called the Web Page Download Time Estimation, which generates data analytics based on information stored in the FSB. (*Id.* at 137:8–138:14.) He explained that this feature "demonstrate[s] that information in the flow record is *sufficient to identify* the flow-entry and also to allow it to associate with previously-encountered conversational flows," as required by the claim. (*Id.* at 138:8–11 (emphasis added).)[4]

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[4] Dr. Alermoth testified that for element 19(d), "the documentation and evidence that shows that the way that GeoBlade works is similar to the G10." (Dkt. No. 245,10/10/17 P.M. Trial Tr. at 149:20–21; *see also id.* at 150:19–22 ("So all of the evidence that I pointed to earlier about Fsb.c source code file, the flow header document, all of that is exactly the same evidence that I've relied on for the rest of this limitation."); *id.* at 150:3–22 (citing deposition testimony from Mr. Curtin, who testified about a

Dr. Alermoth engaged in a similar analysis for element 19(e). He explained that this element recites a "look-up engine. And the function of the look-up engine, as it's described in the words of the claim here, roughly is to look at packets that come in and determine whether they're for an existing flow or whether they're for a new flow." (*Id.* at 138:20–25.) He showed the jury a source code file, FSPP_G10.c, and testified that "on Page 3 of this source code file, there is a function to search the FSB, to search the flow state block, and determine if packets coming in match with an existing flow-entry or not." (*Id.* at 139:9–13.)[5]

Finally, Dr. Alermoth stated that element 19(f) requires a "flow insertion engine." (*Id.* at 139:23–24.) He explained that "once you looked up the flow, if it finds a flow, it can update that flow-entry with information from the packet that was just observed. If there isn't an existing flow that's found, then it can create a new flow-entry." (*Id.* at 139:24–140:3.) Based on source code for the FSB, he opined that the Accused Products practice these limitations. (*Id.* at 140:8–142:12 (explaining that source code says "[c]reate and initialize a new flow," "talks about monitoring and classifying the

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document that "show[ed] how the functions of the G10 map to the GeoBlade").)

[5] For the GeoBlade, Dr. Alermoth presented source code that met this limitation. (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 151:4–10.) *See also* PTX-203.

packet," and "looking at updating elements of that flow-entry," as required by element 19(f)).)[6]

The Court finds that the strength and sufficiency of record evidence, as discussed above, adequately supports the jury's verdict of infringement. NetScout contends that Dr. Alermoth presented a "new (and erroneous) interpretation of the Asserted Claims" at trial that contradicted his deposition testimony and expert report, and that had he provided testimony on the "proper interpretation" of the claims, no reasonable jury could have found infringement. (Dkt. No. 314 at 1, 22.) Even if true, NetScout never raised the issue during its cross-examination of Dr. Alermoth. Nor did it object at trial to his testimony as beyond the scope of his expert report. The argument was simply never raised prior to the return of the jury's verdict, and as such, is irrelevant and improper under Rule 50(b). *See Paez v. Gelboym*, 578 Fed. Appx. 407, 408 n.1 (5th Cir. 2014) ("We do not consider evidence that was not presented to the jury."); *see also West v. Media Gen. Operations, Inc.*, 250 F. Supp. 2d 923, 947 (E.D. Tenn. 2002) ("When deciding the plaintiffs' Rule 50(b) motion, the Court is limited to reviewing only the evidence presented to the jury at trial. The Court cannot grant a Rule 50(b) motion and set aside the jury's verdict based on information that was not introduced into evidence at trial and not taken into consideration by the jury.").

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[6] For the GeoBlade, Dr. Almeroth presented source code that met this limitation. (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 151:17–21.) *See also* PTX-203.

The Court's role in ruling on a Rule 50(b) motion is to determine whether there is a "legally sufficient evidentiary basis" from the trial record to support the jury's verdict. Fed. R. Civ. P. 50(a). "Where a jury [such as here] is presented with two conflicting positions at trial and there is reasonable evidence and argument to support both positions, the fact that the jury ultimately sided with one party over the other does not support entry of JMOL." *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, No. 2:14-cv-00911-JRG, 2016 WL 4440255, at *7 (E.D. Tex. Aug. 23, 2016), *aff'd*, 880 F.3d 1356 (Fed. Cir. 2018). Ultimately, the jury was entitled to credit Dr. Alermoth's testimony over NetScout's expert. *Id.* ("[T]he Court will not supplant the judgment of the jury."). Accordingly, the jury's verdict of infringement must stand undisturbed.

C. Invalidity

At trial, NetScout alleged that the Asserted Claims are invalid because (1) the claims are anticipated under 35 U.S.C. § 102(a) (pre-AIA) and (2) the Patents-in-Suit fail to name all inventors as required by 35 U.S.C. §102(f) (pre-AIA). Specifically, NetScout argued that its network monitor, the 6010 probe with software version 4.5 (the "NetScout Probe"), implemented the industry-standard "Track Sessions" functionality. (*Id.* at 1.) NetScout submits that it presented evidence and testimony from Rajeev Nadkarni, a NetScout engineer, and its expert, Mr. Waldbusser, which showed that Track Sessions "actually associated related connection flows into 'conversational flows,'

just like the invention described and claimed in the Asserted Patents." (*Id.*) NetScout also argued that the Asserted Claims are invalid because the Patents-in-Suit do not name the RMON working group as an inventor. The RMON working group "devised * * * 'Track Sessions' and "was the true source of the essential feature of the Asserted Claims, [which was] what Russel Dietz and the other named inventors claimed in the patents as 'conversational flows.' " (*Id.* at 2.)

NetScout asserts that PI' s attempts to rebut invalidity do not provide substantial evidence for the jury to find that NetScout failed to show anticipation or improper inventorship. (*Id.* at 1320; Dkt. No. 328 at 3–4.) First, PI's expert, Dr. Alermoth, testified that there were different versions of Track Sessions implemented in the NetScout Probe and that these differences cast doubt as to (1) whether Mr. Waldbusser "follow[ed] a proper methodology with respect to anticipation" and (2) whether the NetScout Probe with version 4.5 of Track Sessions actually functioned in the manner set forth in the claims. (Dkt. No. 250, 10/12/17 P.M. Trial Tr. at 40:9–42:12.) NetScout concedes that its fact witness, Mr. Nadkarni, did testify that there were two versions of Track Sessions—version 4.5 (the initial release) and version 4.5.3 (the patch release). (Dkt. No. 317 at 14.) NetScout argues, however, that Mr. Nadkarni confirmed at trial that Version 4.5.3 addressed "small problems, like bugs" and "would [not] have changed the functionality of 'Track Sessions' [in version 4.5]." (*Id.* (citing Dkt. No. 248, 10/11/17 P.M. Trial Tr. at 107:15–23).)

NetScout also argues that Dr. Alermoth's testimony about the differences between Track Sessions and the Asserted Claims was premised on "phantom claim limitations." (*Id.* at 15.) According to NetScout, Dr. Alermoth first told the jury that the claims require conversational flows to be comprised of separate connection flows and that every connection flow of a conversational flow had to be maintained in a *separate* flow-entry. (*Id.* at 16 (citing Dkt. No. 250, 10/12/17 P.M. Trial Tr. at 45:3–6).) He allegedly opined that the NetScout Probe does not anticipate because it maintained information about different connections all in *one* flow-entry and not in separate entries. (*Id.* at 16–17.) NetScout further characterizes PI's Opposition as stating that the claims require the tracking of simultaneous or parallel connection flows and that since the NetScout Probe describes a sequence of flows, there is no anticipation. (Dkt. No. 328 at 3–4.) NetScout claims that neither of these purported limitations is required by the Patents-in-Suit and that such an interpretation would exclude a preferred embodiment of the claims. (*Id.*) As a result, NetScout contends that no reasonable jury could have found that the Asserted Claims are not invalid, and moves to vacate the jury's finding of no invalidity. (*See* Dkt. No. 237 at 4.)

The Court has conducted a careful review of the trial record and finds no valid reason to depart from the jury's verdict. Judgment as a matter of law is granted only if the jury's verdict has no legally sufficient evidentiary basis. Fed. R. Civ. P. 50(a)(1). NetScout does not show this in its motion. Instead,

NetScout summarizes the competing evidence presented at trial and asks the Court to reweigh the evidence in its favor. For example, NetScout complains about Dr. Alermoth's testimony in response to its expert, Mr. Waldbusser. At trial, Mr. Waldbusser opined that the NetScout Probe with Track Sessions anticipated the Asserted Claims because it practiced the "conversational flow" limitation. He explained that Track Sessions "links together, ***join[s] together connections*** starting on well-known ports with second connections that—— that are on dynamically assigned ports." (Dkt. No. 248, 10/11/17 P.M. Trial Tr. at 156:6–9 (emphasis added).) In particular, he testified that the NetScout Probe with Track Sessions practiced the "conversational flow" limitation recited in element 19(d) of the '789 Patent:

> Well, this limitation also required that—evidence of conversational flows, and remember that's where we're going to remember the port number and ***join the connections together*** and so
>
> . . .
>
> So here we remember the port number. We—we put the port number in this port mapper packet, examine that packet, correlate the red key to the new purple key where we're—where we're remembering the port number. That's the process that I'm about to show you. So it—part of it is unsurprisingly in trackses.h with—for TrackSessions.
>
> . . .

> The pp.c has the—has the code that remembers the port. That Line 1817 actually remembers the port, and the highlighted comment above it tells a little bit about what it's doing. It's assigning the new port for the previously asked program, and then assigning the port. And then on the next slide it shows the—***the code that swaps the hash bucket***. And then it—
>
> . . .
>
> Well, it means that we're—it essentially means we're adding this new entry to the table.
>
> . . .
>
> Oh, when I found those things, I realized that I found all the elements for the conversational flow.

(*Id.* at 209:18–211:5 (emphasis added).)

PI's expert, Dr. Alermoth, disagreed. He opined that (1) Mr. Waldbusser's analysis was flawed because he focused only on two words in the claim—"conversational flow"—as a single limitation, when in fact the claims required much more, and (2) the NetScout Probe did not associate different connection flows with the same conversational flow and instead replaced one flow with another. He explained to the jury:

> But when Mr. Waldbusser did an analysis of this claim with respect to conversational flows, the only thing that he looked at was the two words "conversational flows" and one

limitation of Claim 19(d). Two words out of 29 words for that limitation and nothing for any of the other limitations

. . .

It's two words as part of a—— of other words in a single limitation. ***And it's important to read the rest of the words.***

. . .

So if you go to the next slide from Waldbusser, 211, he then talks about how—well, the first part was packets of a protocol start on a well-known port, and then transfer them to dynamically assigned ports. That means that it goes to this new port that's different than what the original port was.

So even though there's two different connections that are happening here, what TrackSessions is trying to do is put them into a single flow-entry. And that's what he's shown down here at the bottom. It's not two flow-entries. It's a single flow-entry.

. . .

So in this instance, you have one flow-entry. And, for example, all of the packets that were exchanged over these two different connections are counted as the one flow-entry. There aren't two separate flow-entries. They aren't—they then aren't tied together. So it's a very different concept.

On cross-examination, he was asked whether or not there was a way to determine, using

> ***this flow-entry, how many packets could be attributed to this first connection versus packets attributed to the second connection. And he answered that there was not. And I agree with that. Because there's the only one flow-entry, all of the packets are associated with that one flow-entry. And so there isn't the concept of a conversational flow that can relate different independent flows to each other.***
>
> . . .
>
> And ***so this idea of just having one flow-entry that's changed, as opposed to maintaining existing flow-entries, creating new flow-entries, and then correlating and relating those flow-entries together to create conversational flows is not what happens when you just swap out the port number and maintain one flow-entry.***

(Dkt. No. 250, 10/12/17 P.M. Trial Tr. at 21:7–19; 28:9–29:14; 45:11–16 (emphasis added).)

NetScout claims that Dr. Alermoth manufactured "phantom claim limitations" to side-step invalidation. (Dkt. No. 317 at 1–2.) However, Dr. Alermoth's opinions represent one fair reading of the claims. Each party's expert applied the Court's claim constructions to opine on what a person of ordinary skill in the art would understand the claims to require. (Dkt. No. 248,10/11/17 P.M. Trial Tr. at 202:11–203:8; Dkt. No. 250,10/12/17 P.M. Trial Tr. at 17:18–21.) In view of those competing opinions, the jury was entitled to credit the testimony

of Dr. Alermoth over Mr. Waldbusser and find that the NetScout Probe does not practice each limitation in the Asserted Claims. "The Court will not supplant the judgment of the jury." *Core Wireless*, 2016 WL 4440255, at *7.

Even in the absence of Dr. Alermoth's rebuttal testimony, PI has pointed to other evidence in the record that supports the jury's verdict of no invalidity:

- "Mr. Dietz [a named inventor] testified that the Track Sessions port-swapping technique was very different than the claimed technique—and those differences were intentional because RMON left implementation techniques open, and he further testified (consistent with Dr. Alermoth) that the NS Probe did not have application layer visibility and thus could not have classified conversational flows as claimed." (Dkt. No. 333 at 2; *see also* Dkt. No. 244,10/10/17 A.M. Trial Tr. at 89:22–25; 90:13–23; 99:24100:21; 109:13–110:5; 114:10–115:10; 125:14–127:5.)
- Mr. Waldbusser admitted on cross-examination that he initially "did not think PI' s claims were the same as the NS Probe with Track Sessions," (Dkt. No. 333 at 1), and that he concluded that "what the patent was describing was the same thing as TrackSessions" "during [his] work for this case." (Dkt. No. 249, 10/12/17 A.M. Trial Tr. at 40:13–16).) According to PI, this exposed Mr. Waldbusser to the jury

> "as being more of a hired gun than an objective expert." (Dkt. No. 333 at 1.)

Each of these are different reasons why the jury could have found that NetScout failed to prove invalidity by clear and convincing evidence. Nothing more is required to defeat a Rule 50(b) motion. Drawing all reasonable inferences in favor of the verdict and without making any credibility decisions, the Court finds that the verdict is supported by substantial evidence presented at trial. Accordingly, NetScout's motion for judgment as a matter of law of no invalidity should be denied.[7]

IV. CONCLUSION

For the reasons set forth above, NetScout's Rule 50(b) Renewed Motion for Judgment as a Matter of Law of No Infringement (Dkt. No. 314) and NetScout's Rule 50(b) Renewed Motion for Judgment as a Matter of Law of Invalidity Under 35 U.S.C. §§ 102(a), 102(f) and 101 (Dkt. No. 317) are each **DENIED**.

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[7] NetScout argues that the NetScout Probe with Track Sessions anticipates the Asserted Claims. NetScout also argues that since the RMON working group devised Track Sessions, it should have been a named inventor of the Patents-in-Suit per 35 U.S.C. § 102(f). Since the Court finds that the jury had a reasonable basis to find that the NetScout Probe with Track Sessions does not anticipate, the jury necessarily had a reasonable basis to reject NetScout's argument that RMON, the group that devised Track Sessions, should have been a named inventor on the Patents-in-Suit.

So ORDERED and SIGNED this 31st day of May, 2019.

/s/ Rodney Gilstrap
RODNEY GILSTRAP
UNITED STATES
DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

PACKET INTELLIGENCE LLC,	§	
	§	
Plaintiff,	§	
	§	
v.	§	**CIVIL ACTION NO. 2:16-CV-00230-JRG**
NETSCOUT SYSTEMS, INC., TEKTRONIX COMMUNICATIONS, TEKTRONIX TEXAS, LLC,	§	
	§	
Defendants.	§	

MEMORANDUM OPINION AND ORDER

(Filed Jun. 5, 2019)

Before the Court is Defendants NetScout Systems, Inc. and NetScout Systems Texas, LLC's (f/k/a Tektronix Texas, LLC d/b/a Tektronix Communications) (collectively, "NetScout") Motion for Judgment as a Matter of Law of No Pre-Suit Damages Pursuant to Fed. R. Civ. P. 50(b) (Dkt. No. 315) and Renewed Motion for Judgment as a Matter of Law of No Willful Infringement Pursuant to Fed. R. Civ. P. 50(b) (Dkt. No. 316). The Court heard oral argument on the motions on May 21, 2019. (Dkt. No. 339.) Having considered the parties' motions, briefing, oral arguments, and trial record, the Court is of the opinion that each motion should be and hereby is **DENIED**.

I. BACKGROUND

Plaintiff Packet Intelligence LLC ("PI") sued NetScout for patent infringement on March 15, 2016. (Dkt. No. 1.) PI alleged that NetScout's GeoProbe 10 ("G10") and GeoBlade (collectively, the "Accused Products") literally[1] infringe Claims 10 and 17 of U.S. Patent No. 6,665,725 (the "'725 Patent"); Claims 1 and 5 of U.S. Patent No. 6,839,751 (the "'751 Patent"); and Claims 19 and 20 of U.S. Patent No. 6,954,789 (the "'789 Patent") (collectively, the "Asserted Claims" or "Patents-in-Suit").[2] (*Id.*) PI also alleged willful infringement and sought pre-suit damages. (*Id.*) NetScout asserted several defenses, including invalidity under 35 U.S.C. §§ 101, 102, 103, and 112; failure to properly name all inventors under 35 U.S.C. § 102(f); inequitable conduct; and unclean hands. (Dkt. No. 205 at 9–11.) The case proceeded to trial, and the jury returned a verdict in favor of PI, finding that the Asserted Claims were willfully infringed, none of the Asserted Claims were invalid, and that PI was entitled to damages in the amount of $5.75 million as a running royalty. (Dkt. No. 237.) Following submission of the evidence to the jury, the Court conducted a bench trial as to the equitable issues and concluded that NetScout had failed to show that PI's claims were barred under the doctrines of unclean hands or inequitable conduct.

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[1] PI did not assert infringement under the theory of doctrine of equivalents.

[2] In the complaint, PI also alleged infringement of U.S. Patent Nos. 6,771,646 and 6,651,099, but withdrew its claims relating to those patents before trial. (Dkt. No. 132 at 13.)

(Dkt. Nos. 242, 306.) The Court entered final judgment on September 7, 2018, designating PI as the prevailing party. (Dkt. No. 307 at 2.)

NetScout now moves pursuant to Federal Rule of Civil Procedure 50(b) for an order that vacates (1) the jury's award of $3.5 million in pre-suit damages (Dkt. No. 315) and (2) the jury's finding of willful infringement (Dkt. No. 316).

II. LEGAL STANDARDS

A. Federal Rule of Civil Procedure 50(b)

Judgment as a matter of law is appropriate if "the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for [a] party" on an issue. Fed. R. Civ. P. 50(a)(1). "The grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district would usually lie." *Finisar Corp. v. DirectTV Grp., Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). The Fifth Circuit "uses the same standard to review the verdict that the district court used in first passing on the motion." *Hiltgen v. Sumrall*, 47 F.3d 695, 699 (5th Cir. 1995). Thus, "a jury verdict must be upheld unless 'there is no legally sufficient evidentiary basis for a reasonable jury to find as the jury did.'" *Id.* at 700 (quoting Fed. R. Civ. P. 50(a)(1)). The jury's verdict must be supported by "substantial evidence" for each claim. *Am. Home Assurance Co. v. United Space All.*, 378 F.3d 482, 487 (5th Cir. 2004).

Under Fifth Circuit law, the court is to be "especially deferential" to a jury's verdict and must not reverse the jury's findings unless they are not supported by substantial evidence. *Baisden v. I'm Ready Prods., Inc.*, 693 F.3d 491, 499 (5th Cir. 2012). "Substantial evidence is defined as evidence of such quality and weight that reasonable and fair-minded men [and women] in the exercise of impartial judgment might reach different conclusions." *Threlkeld v. Total Petroleum, Inc.*, 211 F.3d 887, 891 (5th Cir. 2000). The moving party is entitled to judgment as a matter of law unless "the evidence points so strongly and so overwhelmingly in favor of the nonmoving party that no reasonable juror could return a contrary verdict." *Int'l Ins. Co. v. RSR Corp.*, 426 F.3d 281, 296 (5th Cir. 2005) (citing *Cousin v. Tran Union Corp.*, 246 F.3d 359, 366 (5th Cir. 2001)). However, "[t]here must be more than a mere scintilla of evidence in the record to prevent judgment as a matter of law in favor of the movant." *Arismendez v. Nightingale Home Health Care, Inc.*, 493 F.3d 602, 606 (5th Cir. 2007).

In evaluating a motion under Rule 50, the court must "draw all reasonable inferences in the light most favorable to the verdict and cannot substitute other inferences that [the court] might regard as more reasonable." *E.E.O.C. v. Boh Bros. Const. Co., L.L.C.*, 731 F.3d 444, 451 (5th Cir. 2013) (internal citation omitted). "[T]he court must give credence to the evidence favoring the nonmovant as well as that 'evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that that evidence

comes from disinterested witnesses.'" *See Ellis v. Weasler Eng'g Inc.*, 258 F.3d 326, 337 (5th Cir. 2001) (quoting 9A WRIGHT & MILLER § 2529). However, in doing so, the court may not make credibility determinations or weigh the evidence, as those are solely functions of the jury. *See id.* (quoting *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150–51 (2000)).

B. Pre-Suit Damages

To obtain pre-suit damages, a patent owner must show either that it (1) provided the accused infringer with actual notice of infringement or (2) complied with the marking requirements of 35 U.S.C. § 287(a). If a patent owner fails to comply with the marking statute, then it may only recover damages from the time it provided actual notice of the alleged infringement. 35 U.S.C. §287(a).

The marking statute provides:

> Patentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States, may give notice to the public that the same is patented, either by [1] fixing thereon the word "patent" or the abbreviation "pat.", together with the number of the patent, or [2] by fixing thereon the word "patent" or the abbreviation "pat." together with an address of a posting on the Internet, accessible to the public without charge for accessing the address, that associates the patented article

> with the number of the patent, or when, from the character of the article, this cannot be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice. In the event of failure so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice.

35 U.S.C. § 287(a).

The marking statute applies to both the patentee and those who make and sell patented articles under the patentee's authorization. *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1111 (Fed. Cir. 1996). "[W]ith third parties unrelated to the patentee, it is often more difficult for a patentee to ensure compliance with the marking provisions. A 'rule of reason' approach is justified in such a case and substantial compliance may be found to satisfy the statute." *Id.* Thus, "[w]hen the failure to mark is caused by someone other than the patentee, the court may consider whether the patentee made reasonable efforts to ensure compliance with the marking requirements. The rule of reason is consistent with the purpose of the constructive notice provision—to encourage patentees to mark their products in order to provide notice to the public of the existence of the patent and to prevent innocent infringement." *Id.* at 1111–12.

"[A]n alleged infringer who challenges the patentee's compliance with § 287 bears an initial burden of production to articulate the products it believes are unmarked 'patented articles' subject to § 287." *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1368 (Fed. Cir. 2017). This initial burden is a "low bar" and "the alleged infringer need only put the patentee on notice that he or his authorized licensees sold specific unmarked products which the alleged infringer believes practice the patent. The alleged infringer's burden is a burden of production, not one of persuasion or proof." *Id.* "Once the alleged infringer meets its burden of production, however, the patentee bears the burden to prove the products identified do not practice the patented invention." *Id.* The patentee bears the ultimate burden of proving compliance with marking. *Id.*

C. Willful Infringement

Section 284 of the Patent Act provides that, in the case of infringement, courts "may increase the damages up to three times the amount found or assessed." 35 U.S.C. § 284. Whether enhanced damages are warranted and in what amount are within the sound discretion of the trial court. *Halo Elects., Inc. v. Pulse Elects., Inc.*, 136 S. Ct. 1923, 1932 (2016). The Supreme Court has explained that such damages "are not to be meted out in a typical infringement case, but are instead designed as a 'punitive' or 'vindictive' sanction for egregious infringement behavior." *Id.* at 1932. Conduct warranting enhancement has been variously

described as "willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." *Id.*

Willful infringement may justify, but does not mandate, an award of enhanced damages. *Read Corp. v. Protec, Inc.*, 970 F.2d 816, 816 (Fed. Cir. 1992). "To willfully infringe a patent, the patent must exist and one must have knowledge of it." *State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985); *see also WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1341 (Fed. Cir. 2016) ("Knowledge of the patent alleged to be willfully infringed continues to be a prerequisite to enhanced damages."). Willful infringement requires some sort of intentional conduct—whether it be subjective or objective. *Halo*, 136 S. Ct. at 1932; *see also Arctic Cat*, 876 F.3d at 137 (explaining that "*Halo* emphasized that subjective willfulness alone—i.e., proof that the defendant acted despite a risk of infringement that was 'either known or so obvious that it should have been known to the accused infringer,' can support an award of enhanced damages").

Willful infringement is a question of fact reviewed for substantial evidence. *WBIP*, 829 at 1341–42. It is "generally measured against the knowledge of the actor at the time of the challenged conduct" and "can arise pre- or post-suit." *Huawei Techs. Co. v. T-Mobile U.S., Inc.*, No. 2:16-cv-00052-JRG-RSP, 2017 WL 1129951, at *4 (E.D. Tex. Feb. 21, 2017), *report and recommendation adopted*, No. 2:16-cv-00052-JRG-RSP, 2017 WL 1109875 (E.D. Tex. Mar. 24, 2018) (quoting *Halo*, 136 S. Ct. at 1933). "Whether an act is 'willful' is by definition a

question of the actor's intent, the answer to which must be inferred from *all the circumstances*." *Indus., Inc. v. IPS Corp.*, 721 Fed. Appx. 959, 970 (Fed. Cir. 2018) (quoting *Gustafson, Inc. v. Intersystems Indus. Prods., Inc.*, 897 F.2d 508, 510–511 (Fed. Cir. 1990) (emphasis in original)).

III. DISCUSSION

A. Pre-Suit Damages

At trial, PI alleged, and the jury found, that PI was entitled to $3 5 million for NetScout's pre-suit infringement of the Asserted Claims. (Dkt. No. 237 at 5.) NetScout moves to vacate that finding. (Dkt. No. 315.) The Court denies the motion for the reasons set forth below.

i. The '789 Patent—Apparatus Claims

The Asserted Claims of the '789 Patent are apparatus claims and subject to the marking statute, 35 U.S.C. §287(a). *See* '789 Patent, Claims 19–20. NetScout contends that PI cannot recover pre-suit damages for those claims because it failed to mark products that practice the claimed inventions. (Dkt. No. 315 at 1.) Specifically, NetScout argues that PI failed to prove marking for (1) the Cisco and Huawei products and (2) the MeterFlow and MeterWorks products. (*Id.* at 4–10.)

a. Cisco and Huawei Products

With respect to Cisco and Huawei, NetScout argues that it identified products that practiced the Asserted Claims of the '789 Patent. (Dkt. No. 315 at 5 n.2.) It contends that PI submitted no evidence to the jury that such products do not practice the patent or that they were properly marked. (*Id.* at 4–5.) NetScout points to testimony from Brad Brunell, PI's corporate representative, who admitted that the Cisco and Huawei license agreements do not require marking products covered by the '789 Patent. (*Id.* at 4 (citing Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 45:10–11, 75:19–25, 89:5–14; PTX-320 (PI-Cisco license agreement); PTX-301 (PI-Huawei license agreement).))

PI argues that NetScout defaulted on its initial burden of production. (Dkt. No. 321 at 6.) According to the jury instructions, "NetScout [had to] first show the existence of a patented article" "that practices one or more of the claims of the '789 patent" and that failure to do so meant that "Packet Intelligence [was] permitted to collect damages going six years before the filing of the complaint." (*Id.* at 3 (citing Dkt. No. 252, 10/13/17 A.M. Trial. Tr. at 47:10–49:2).) PI states that "NetScout's citations to the trial record only establish that there were prior litigations and licenses." (*Id.* at 6.) It explains that NetScout directs the Court to products that were identified in the "summary judgment briefing and [in] the complaint filed in the Cisco and Huawei litigations." (*Id.* at 8.) Since "none of those materials were presented to the jury," PI contends that it had no burden to prove marking at trial. (*Id.*)

As an initial matter, the Court finds that NetScout bore the initial burden of production *at trial*. NetScout argues that it met this burden because it identified specific products in its *summary judgment* briefing, citing Magistrate Judge Payne's decision in *Semcon IP Inc. v. Huawei Device USA, Inc.*, 2:16-cv-00437-JRG-RSP, 2017 WL 6343771, at *1 (E.D. Tex. Dec. 12, 2017) ("Accordingly, because Huawei has met its initial burden of production of notifying Semcon of products covered by the '061 Patent that Huawei believes were not marked, Semcon must satisfy its burden of showing compliance with the marking statute at trial."). In *Semcon*, Judge Payne held that the defendant had met its initial burden of production at summary judgment and that the burden automatically shifted to the plaintiff at trial. *Semcon*, 2017 WL 6343771, at *1. Here, however, the Court denied NetScout's motion for summary judgment as to pre-suit damages *in totality* (Dkt. No. 228 at 13), and confirmed at the pretrial conference that marking was "a live issue" for trial. (Dkt. No. 225, 9/19/17 Pretrial Conf. at 101:13–17; *see also* Dkt. No. 221, 9/18/17 Pretrial Conf. at 165:18–20). As such, NetScout still had to identify for the jury specific patented articles that required marking.[3]

[3] This case was tried before the Federal Circuit decided *Arctic Cat Inc. v. Bombardier Recreational Prods., Inc.*, 876 F.3d 1350 (Fed. Cir. 2017). NetScout does not object to the marking instruction given to the jury and agrees that the instruction was consistent with *Arctic Cat*. (Dkt. No. 342, JMOL Hearing at 38:23–25 ("Now, this Court's marking instruction to the jury was consistent with that holding from the Federal Circuit"))

Having reviewed the trial record, the Court determines that the jury had a "sufficient evidentiary basis" to find that NetScout failed to identify specific Huawei or Cisco products that should have been marked for the '789 Patent. Fed. R. Civ. P. 50(a)(1). NetScout only presented the jury with evidence that PI had entered into prior litigations and license agreements with Huawei and Cisco that covered "products" under the '789 Patent. (*See* Dkt. No. 234, 10/10/17 P.M. Trial Tr. at 68:14–69:8, 71:15–72:10, 76:6–20, 88:20–89:12, 106:21–107:23; Dkt. No. 246, 10/10/17 P.M. Sealed Tr. 3:17–19; Dkt. No. 249, 10/12/17 A.M. Trial Tr. at 121:5–125:10; Dkt. No. 300, 10/11/17 A.M. Trial Tr. at 75:19–25.) The license agreements did not identify any specific licensed products (*See* PTX-301 (Huawei license); PTX-320 (Cisco License), and at no time during the trial did NetScout identify any for the jury. Consistent with the Court's instructions to the jury and given that no specific Huawei or Cisco products had been sufficiently identified, the jury had a reasonable basis to find that PI did not have to prove marking for those unidentified products. *Compare Arctic Cat*, 876 F.3d at 1368 (finding defendant met initial burden of production because it "introduced the licensing agreement between Honda and Arctic Cat" and identified "fourteen Honda PWCs from three versions of its Aquatrax series sold between 2002 and 2009"), *with Lexos Media IP, LLC v. Jos. A. Bank Clothiers, Inc.*, No. 14-cv-6544(KAM) (GRB), 2018 WL 2684104, at *2 (D. Del. June 5, 2018) (finding defendant had not met initial burden of production because "Defendant had not yet identified what licensees were

at issue, *or which 'specific unmarked products' those licensees sold* that Defendant believes read on the patents-in-suit") (emphasis added).

b. MeterFlow and MeterWorks Products

NetScout also argues that PI failed to mark the MeterFlow and MeterWorks products (collectively, the "Meter Products"). (Dkt. No. 315 at 5–10.) According to NetScout, Exar, a predecessor-in-interest to the Patents-in-Suit, sold "unmarked MeterFlow software products" that "practice the '789 Patent." (*Id.* at 5–7.) NetScout explains that the following evidence establishes the Meter Products as patented articles:

- Testimony from Mr. Ham, Exar's corporate representative, that the Patents-in-Suit "were underlying the technology that was being sold as MeterFlow and MeterWorks" and that those patents "were derived from the development work that was done to generate the products" of "MeterFlow, MeterWorks" and "were related [to] flow classification." (Dkt. No. 249, 10/12/17 A.M. Trial Tr. at 138:12–25, 141:1–23.)
- Testimony and evidence showing that the provisional application for the '789 Patent represented MeterFlow as a preferred embodiment of the invention. (Dkt. No. 244, 10/10/17 A.M. Trial Tr. at 106:21–107:23 (testimony of Mr. Dietz, named inventor of Patents-in-Suit); Dkt. No. 249, 10/12/17 A.M. Trial Tr. at 121:5–125:10

> (testimony of Mr. Rosenfeld, prosecuting attorney for the '789 Patent); PT-X010 (sworn declaration from Mr. Dietz for the '789 Patent); DX-274 (email from Mr. Dietz to the "MeterFlow team"); DX524 (email from Mr. Lazar, VP and CFO of Aptitude, another company that previously owned the Patents-in-Suit).)

(*Id.* at 5–7.) NetScout argues that PI provided no evidence that such products had been marked and that PI's own corporate representative, Mr. Burnell, "conceded that he was not aware of any prior owners of the Patents-in-Suit, including Exar, marking their products with any patent numbers." (*Id.* at 5 (citing Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 88:20–89:4); *id.* at 7–10.)

In response, PI argues that "there was substantial evidence before the jury showing that no version of the Meter [P]roducts practiced any claim of the '789 patent." (Dkt. No. 332 at 4.) PI identifies the following evidence from the trial:

- Testimony from Mr. Dietz, a named inventor of the Patents-in-Suit, that "MeterWorks never embodied the inventions." (Dkt. No. 244,10/10/17 A.M. Trial Tr. at 105:5–106:3.)
- Testimony from Mr. Dietz that (1) there were "many versions of MeterFlow;" (2) MeterFlow "differ[ed] in capability from version to version;" and (3) while the provisional application stated that

> MeterFlow was to be a preferred embodiment, the final application changed that; "Dr. Rosenfeld [the prosecuting attorney] knew * * * that [MeterFlow] was not to be * * * used as a preferred embodiment going forward, and it was removed from all of the patents that were actually filed and finally issued" because "[MeterFlow] was a piece of software * * * that evolved" and "it was going to give the wrong indication that all of those past versions that use that marketing term, MeterFlow, were – were the current version, and they weren't." (*Id.* at 122:6–124:1.)

(Dkt. No. 321 at 9–11; Dkt. No. 332 at 3–4.) PI also argues that "NetScout selectively quotes Mr. Ham to imply that the underlying technology for the patents was sold as MeterFlow and MeterWorks." (Dkt. No. 321 at 10.) PI argues that Mr. Ham "testified that he had not read the patents or compared the claims to any Meter [P]roducts":

> Q. Now, you mentioned that you weren't supporting any products anymore for the patents. Is it your understanding that certain products were covered by these patents?
>
> A. I can't draw a direct correlation because I don't—I haven't looked at the patents or—or read the patents, but I believe that they were underlying the technology that was being sold as MeterFlow and MeterWorks.
>
> * * *

Q. Now, I believe you testified—you mentioned earlier that—that certain products—at least it was your understanding that certain products sold by Hi/Fn were protected by at least some of the patents; is that right?

A. I believe that some of the patents were the basis—that they were derived from the development work that was done to generate the products.

Q. And these are patents that were ultimately sold by Exar to Packet Intelligence?

A. I—I don't know specifics of the patents, but I believe that they were related to those products, yes.

Q. Okay. And in—when you say related, what—what is your understanding of-

A. That they were basic flow classification—they were related [to] flow classification, which is what the product was based on.

Q. And when you say products, which products are you referring to?

A. MeterFlow, MeterWorks.

Q. But outside of kind of that general understanding, you—you haven't looked at the—at the patents themselves; is that right?

A. That's correct.

Q. And you haven't actually compared those products to the patent claims; that right?

A. That's correct.

> Q. And you haven't actually consulted any Markman orders or other documentation concerning how the claims of the patents are interpreted; is that right?
>
> A. That's correct.
>
> Q. So sitting here today, you can't actually make a representation that any of those products were actual commercial embodiments of the—of any of the patents; is that right?
>
> A. That's correct.

(Dkt. No. 321 at 10–11 (citing Dkt. No. 249, 10/12/17 A.M. Trial Tr., at 138:17–142:16).) PI submits that based on the foregoing, the jury had a reasonable basis to find that NetScout had not identified any patented articles for the '789 Patent that should have been marked.

The Court has conducted a careful review of the trial record and finds that the jury had a substantial evidentiary basis to conclude that PI was not obligated to mark the Meter Products. Mr. Ham, Exar's corporate representative, testified that he "[could not] actually make a representation that any of [the Meter] [P]roducts were actual commercial embodiments of the—of any of the patents." (Dkt. No. 249, 10/12/17 A.M. Trial Tr. at 142:12–16.) Similarly, Mr. Dietz, an inventor of the Patents-in-Suit, testified that none of those products practiced the claimed inventions. (Dkt. No. 244, 10/10/17 A.M. Trial Tr. at 105:14–16, 105:24–106:3.) In fact, PI presented *unrebutted* testimony that while the *provisional* application for the '789 Patent

referenced MeterFlow as a preferred embodiment, the *final* application omitted any such statements because the inventors did not think MeterFlow practiced the invention. (*Id.* at 122:6124:1.) The jury was entitled to credit this evidence over the competing testimony and evidence from NetScout, including Mr. Ham's competing testimony that he "believed" the MeterFlow and MeterWorks products were the "underlying technology" of the Patents-in-Suit, and that the Patents-in-Suit were "derived from" and "related to" those products. (Dkt. No. 249, 10/12/17 A.M. Trial Tr., at 138:17–142:16.)

In deciding a Rule 50(b) motion, the Court is careful to "draw all reasonable inferences in the light most favorable to the verdict," and to not substitute its own inferences for those made by the jury. *Boh Bros.*, 731 F.3d at 451; *Ellis*, 258 F.3d at 337. Ultimately, the Court finds that there is more than a "mere scintilla of evidence" favoring the nonmovant, and as such, denies NetScout's judgment as a matter of law of no pre-suit damages as it relates to the Meter Products. *Arismendez*, 493 F.3d at 606.

ii. The '725 and '751 Patents—Method Claims

The Asserted Claims of the '725 and '751 Patents are not subject to the marking statute because they are method claims. *See* '725 Patent, Claims 10, 17; '751 Patent, Claims 1, 5; *see also Active Video Networks v. Verizon Commc'ns*, 694 F.3d 1312, 1335 (Fed. Cir. 2012)

("[I]f the patent is directed only to method claims, marking is not required."). Since the Court granted NetScout's motion for summary judgment of no pre-suit indirect infringement, PI could only obtain pre-suit damages based on NetScout's direct infringement of those claims. (Dkt. No. 228 at 13.) NetScout argues that PI "presented no evidence of revenue or damages resulting from testing or internal use of [the] accused products by NetScout itself." (Dkt. No. 315 at 11.) Instead, PI's damages expert, Mr. Bergman, calculated the royalty base using only the U.S. *sales* of the Accused Products. (*Id.* at 11 (citing Dkt. No. 300, 10/11/17 A.M. Trial Tr. at 25:2–14) (emphasis added).) As a result, "there was no damages argument, theory, or evidence based on NetScout's own use of the asserted patents" that "supports any damages for pre-suit infringement of the '751 and '725 method patents." (Dkt. No. 329 at 5.)

Having reviewed the evidence at trial, the Court finds no reason to vacate the jury's damages award. PI has identified substantial evidence in the record showing that it is entitled to pre-suit damages based on NetScout's own use of the Accused Products:

- Dr. Alermoth testified that his infringement opinions were based on NetScout's admissions that it used the Accused Products in the United States, which he understood included "both testing * * * [and] instances where [NetScout] used those probes out in the field." (Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 156:425.)

- "Mr. Mawraha, NetScout's Product Manager, testified that NetScout technicians implement the infringing systems and methods at customer sites * * * through the NetScout Service Delivery Organization." (Dkt. No. 321 at 11 (citing Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 2:11:5–212:25).)
- "Mr. Lindahl, NetScout's Former Sr. Finance and Accounting Director, testified that NetScout 'customer[s] will pay [NetScout] to use [its] own equipment to monitor the network to do an analysis, a study, to help them solve some sort of issue' and that NetScout has "a business where [it] monitor[s]—where [it] test[s] cell phone towers, network-planning type work," which may include "tak[ing] one of [its] own probes and go[ing] into a network to perform service." (*Id.* at 11–12 (citing Dkt. No. 245, 10/10/17 P.M. Trial Tr. at 232:724).)

PI explains that its damages expert, Mr. Bergman, testified that the above activities "drive sales of the products and revenue to NetScout." (Dkt. No. 321 at 12 (citing Dkt. No. 300, 10/11/17 A.M. Trial Tr. at 57:22–59:6).) Such testimony was consistent with the Court's jury instructions, which provided that, in its damages calculation, the jury may consider "the effect of selling the patented specialty in promoting sales of other products of the licensee, the existing value of the invention to the licensee as a generator of sales of its non-patented items, and the extent of such derivative

or convoyed sales." (Dkt. No. 252, 10/13/17 All Day Trial Tr. at 42:34–43:3).) The jury, therefore, had a sufficient basis to find that NetScout's own use of the claimed methods drove U.S. sales of the Accused Products and justified an award of pre-suit damages for the '725 and '751 method patents. NetScout's failure to respond to the above evidence in its briefing only reinforces this conclusion.

B. Willful Infringement

NetScout argues that there is no substantial evidence to support the jury's finding of willfulness. First, NetScout states that in briefing on PI's motion for enhanced damages (Dkt. No. 269), "PI conceded there was no evidence of copying or motivation to harm" and "this Court determined that NetScout's noninfringement and invalidity defenses were in good faith." (Dkt. No. 316 at 1 (citing Dkt. No. 305 at 6 (Court's order granting PI's motion for enhanced damages)).) NetScout also argues that it had no pre-suit knowledge of the Patents-in-Suit and that "[o]nce apprised of PI's infringement claims, NetScout promptly investigated and, relying on technical experts and its counsel, formed noninfringement and invalidity defenses in good faith." (*Id.* at 3 (citing Dkt. No. 300, 10/11/17 A.M. Trial. Tr. at 110:11–12, 116:18–19; Dkt. No. 248, 10/11/17 P.M. Trial Tr. at 87:11–16).) Finally, NetScout argues that there was no willful infringement because it began to "phase out sales of the accused G10 and GeoBlade products before trial." (*Id.* at 4 (citing Dkt. No. 248, 10/11/17 P.M. Trial Tr. at 38:20–39:21; Dkt. No. 303 at

6 (Court's order granting-in-part PI's motion for an ongoing royalty)).) In view of the foregoing, NetScout submits that there "is no evidence in the record that shows infringement that 'was wanton, malicious, in bad faith, deliberate, consciously wrong, or flagrant," and is therefore entitled to judgment as a matter of law of no willful infringement. (*Id.* at 1.)

The Court disagrees. As an initial matter, NetScout's motion is partly based on material that was not before the jury. (*See* Dkt. No. 316 at 1 (citing Dkt. No. 305 at 6 (Court's order granting PI's motion for enhanced damages)).) Such evidence is irrelevant because under Rule 50(b), "the Court is limited to reviewing only the evidence presented to the jury at trial." *West v. Media Gen. Operations, Inc.*, 250 F. Supp. 2d 923, 947 (E.D. Tenn. 2002); *see also Paez v. Gelboym*, 578 Fed. Appx. 407, 408 n.1 (5th Cir. 2014) ("We do not consider evidence that was not presented to the jury."). NetScout also misstates the law. NetScout argues that there can be no willful infringement because it did not have pre-suit knowledge of the Patents-in-Suit. (Dkt. No. 316 at 3.) It claims that "'whether a willful infringement claim based solely on post-suit conduct is cognizable" "is an open question." (*Id.* (internal citations omitted).) It is well-settled, *at least in this District*, that post-conduct behavior can establish willful infringement. *See Ericsson Inc. v. TCL Commc'n Tech. Holdings, Ltd.*, No. 2:15-cv-00011-RSP, 2017 WL 5137401, at *5 (E.D. Tex. Nov. 4, 2017) ("The Federal Circuit, however, has at least suggested that there is no per se rule precluding a finding of willful infringement based

solely on conduct occurring after the lawsuit is filed) (citing *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1295–96 (Fed. Cir. 2017)).

Finally, notwithstanding the above, PI presented substantial evidence at trial that supports the jury's verdict of willful infringement. For example, Mr. Kenedi, NetScout's corporate representative, admitted that even though he had not read the Patents-in-Suit, his position was that Mr. Dietz lied and stole the claimed inventions. (Dkt. No. 300, 10/11/17 A.M. Trial. Tr. at 116:1822.) Similarly, NetScout's CEO, Mr. Singhal, testified that he could not remember if he had read the Patents-in-Suit or even a summary about them. (Dkt. No. 248, 10/11/17 P.M. Trial Tr. at 87:11–88:4.) NetScout argues that it presented testimony that it began to phase out the Accused Products before trial. However, as PI points out in its Opposition and Sur-Reply, Mr. Singhal confirmed that "if a customer demands the old product, we [i.e., NetScout] *will sell* to [the customer]." (*Id.* at 39:1–2 (emphasis added).) The jury was entitled to consider NetScout's decision to continue selling the Accused Products in its willfulness calculation. *See Milwaukee Elec. Tool Corp. v. Snap-On Inc.*, 288 F. Supp. 3d 872, 887 (E.D. Wis. 2017) ("Here, there was far more evidence that Snap-On carried on years of lucrative infringing sales after failing to respond to the October 2011 licensing letter with a minimally adequate analysis of whether a license would be necessary. Snap-On's knowledge of the existence of the patent was not the sole basis for the jury's finding [of willfulness]."); *Polara Eng'g, Inc. v. Campbell Co.*, 237

F. Supp. 3d 956, 978–79 (C.D. Cal. 2017), *aff'd in part, vacated in part, remanded sub nom.*, 894 F.3d 1339 (Fed. Cir. 2018) (holding that defendant Campbell's decision to continue sales "was among the 'totality of the circumstances' that was appropriately considered by the jury to assess the egregiousness of Campbell's conduct"); *see also Avocent Huntsville Corp. v. ClearCube Tech., Inc.*, No. 03-02875, 2006 WL 2109503, at *27 (N.D. AlA. July 28, 2006) (finding that defendant's continued sales of accused products "may fall under the rubric of the 'totality of the circumstances' test, tending to show [defendant's] infringement was (and continues to be) willful").

Accordingly, the Court finds that the jury's verdict of willfulness is more than adequately supported by the record. NetScout's motion to vacate the same is denied.

IV. CONCLUSION

For the reasons set forth above, NetScout's Motion for Judgment as a Matter of Law of No Pre-Suit Damages Pursuant to Fed. R. Civ. P. 50(b) (Dkt. No. 315) and Renewed Motion for Judgment as a Matter of Law of No Willful Infringement Pursuant to Fed. R. Civ. P. 50(b) (Dkt. No. 316) are each **DENIED**.

So ORDERED and SIGNED this 4th day of June, 2019.

/s/ Rodney Gilstrap
RODNEY GILSTRAP
UNITED STATES
DISTRICT JUDGE

NOTE: This order is nonprecedential.

United States Court of Appeals for the Federal Circuit

PACKET INTELLIGENCE LLC,
Plaintiff-Appellee

v.

NETSCOUT SYSTEMS, INC., NETSCOUT SYSTEMS TEXAS, LLC, FKA TEKTRONIX TEXAS, LLC DBA TEKTRONIX COMMUNICATIONS,
Defendants-Appellants

2019-2041

Appeal from the United States District Court for the Eastern District of Texas in No. 2:16-cv-00230-JRG, Judge J. Rodney Gilstrap.

ON PETITIONS FOR PANEL REHEARING AND REHEARING EN BANC

(Filed Oct. 16, 2020)

Before PROST, *Chief Judge*, NEWMAN, LOURIE, DYK, MOORE, O'MALLEY, REYNA, WALLACH, TARANTO, CHEN, HUGHES, and STOLL, *Circuit Judges*.

PER CURIAM.

ORDER

Appellants NetScout Systems, Inc. and NetScout Systems Texas, LLC and Appellee Packet Intelligence LLC separately filed combined petitions for panel rehearing and rehearing en banc. The petitions were referred to the panel that heard the appeal, and thereafter the petitions for rehearing en banc were referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petitions for panel rehearing are denied.

The petitions for rehearing en banc are denied.

The mandate of the court will issue on October 23, 2020.

FOR THE COURT

October 16, 2020
Date

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

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PACKET INTELLIGENCE LLC	) (	CIVIL DOCKET NO.
VS.	) (	2:16-CV-230-JRG
NETSCOUT SYSTEMS, INC. TEKTRONIX COMMUNICATIONS, AND TEKTRONIX TEXAS LLC	) (	MARSHALL, TEXAS
	) (	OCTOBER 10, 2017
	) (	12:30 P.M.

TRANSCRIPT OF JURY TRIAL

BEFORE THE
HONORABLE JUDGE RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE

APPEARANCES:

FOR THE PLAINTIFF: Mr. Paul J. Skiermont
Ms. Sadaf R. Abdullah
Mr. Steven K. Hartsell
Mr. Alexander E. Gasser
Mr. Steve J. Udick
SKIERMONT DERBY LLP
2200 Ross Avenue
Suite 4800W
Dallas, Texas 75201

COURT REPORTER: Ms. Shelly Holmes, CSR, TCRR
Official Court Reporter
United States District Court
Eastern District of Texas
Marshall Division
100 E. Houston Street

Marshall, Texas 75670
(903) 923-7464

* * *

[79/Appx1209] Q. In the current case, you did not approach Tektronix Texas before filing suit?

A. No, we did not.

Q. You did not identify the patents to Tektronix Texas before filing suit?

A. No, we did not. Other than the citation.

Q. And you have no information that Tektronix Texas or NetScout had any knowledge, whatsoever, of these patents before you filed suit; is that correct?

A. I would infer that there was some knowledge because of the citation; otherwise, no.

Q. You said that your job includes managing resources, that really means managing the law firms that are bringing lawsuits on your behalf; is that right?

A. No, there are also other people, technical people, researchers.

Q. Your principle potential expense is the cost of lawyers?

A. No.

Q. And is that a result of – well, I'll withdraw that.

In your opening, you said that – in the opening that your lawyer gave, you said that Packet Intelligence is building a licensing business. That doesn't actually mean preparing to manufacture, does it?

* * *

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PACKET INTELLIGENCE LLC	) (	CIVIL DOCKET NO.
VS.	) (	2:16-CV-230-JRG
NETSCOUT SYSTEMS, INC. TEKTRONIX COMMUNICATIONS, AND TEKTRONIX TEXAS LLC	) (	MARSHALL, TEXAS
	) (	OCTOBER 11, 2017
	) (	8:40 A.M.

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* * *

[110/Appx1491] sentence, yes.

Q. I don't think there's any interpretation here, sir. Doesn't it say "stolen"?

A. Yes.

Q. And you're also accusing Mr. Dietz of taking credit for what other people have done; is that correct?

A. That's correct.

Q. Okay. And, Mr. Kenedi, are you here to stand up – stand behind those allegations?

A. Yes.

Q. And it is your belief that Mr. Dietz has lied and stolen, is that your opinion?

A. It is my belief through my – through my Counsel that the claims against NetScout are false.

Q. And it's your belief, and your Counsel has apparently given you these beliefs, that Mr. Dietz has lied and that he's stolen and you're here to represent those – those accusations, aren't you?

A. My belief is formed from the experts within our company. My belief is also formed from both internal and external counsel that we've used for this case.

Q. Okay. And it's your belief and it's your accusation that Mr. Dietz is a liar and a thief, correct?

* * *

[116/Appx1497] Q. Okay. What about the United States Patent Office, the United States Patent Office have any reason to believe that Mr. Dietz lied or stole to get the inventions – about the inventions in his patents?

A. I would assume if the United States Patent Office received all the information necessary, they would have no reason to assume anywise.

Q. Well, and – but we do know that the United States Patent Office issued the patents, correct?

A. Yes, we do.

Q. And we do know that the Patent Office was aware of RMON, correct?

A. Just from what we heard yesterday.

Q. I mean, RMON is all throughout the patent, isn't it?

A. I understand it's referenced, yes, but I have not read the patent.

Q. Okay. So you haven't read the patent?

A. I have not.

Q. And yet you've come in here and you've decided that Mr. Dietz has lied and stolen about his inventions?

A. Yes.

Q. In fact, Mr. Anil Singhal, who's going to testify later, he hasn't read the patent either, has he?

A. I do not know.

* * *

[130/Appx1511] demonstrative in your redirect, Counsel?

MR. KRAEUTLER: No, why don't we –

THE COURT: If you're not, let's take it down.

MR. KRAEUTLER: Okay.

THE COURT: All right. Now let's proceed with redirect.

REDIRECT EXAMINATION

BY MR. KRAEUTLER:

Q. Mr. Kenedi, is troubleshooting important to telephone companies?

A. Yes.

Q. Is call tracing important to telephone companies?

A. Yes.

Q. Is identifying conversational flows important to telephone companies?

A. Not that I'm aware of.

Q. You were questioned about why you made no accusations about Mr. Dietz before this lawsuit. Had you ever heard of Packet Intelligence before March of 2016 when your company was sued?

A. No.

Q. Had you ever heard of the Dietz portfolio of patents before March 2016 when your company was sued?

[131/Appx1512] A. No.

MR. KRAEUTLER: No further questions. I'll pass the witness, Your Honor.

THE COURT: Is there further cross-examination?

MR. DAVIS: Briefly, Your Honor.

If I could have PTX-168, Page 1, please.

And if you could highlight starting in the section that says Powerful Platform Maximizes Capacity and Flexibility.

Q. (By Mr. Davis) Now, if you can read at the top here, sir, do you see where it says: Network traffic volumes are already at an all-time high with more growth on the horizon. At over a billion smartphone users worldwide, your subscribers' insatiable appetites for mobile data will quickly outpace your ability to cost-effectively monitor it – until now?

A. I do see that, yes.

Q. Is it still your opinion, sir, that the mobile telephone companies and their networks, that your products are not important to them?

MR. KRAEUTLER: Objection, mischaracterizes.

THE COURT: Overruled. Answer the question, please.

* * *

IN THE UNITED STATES DISTRICT COURT
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MARSHALL DIVISION

PACKET INTELLIGENCE LLC	) (	CIVIL DOCKET NO.
VS.	) (	2:16-CV-230-JRG
NETSCOUT SYSTEMS, INC. TEKTRONIX COMMUNICATIONS, AND TEKTRONIX TEXAS LLC	) (	MARSHALL, TEXAS
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* * *

[87/Appx1602] deposition a few months ago, that he had spent by that time 500 hours working on the case?

A. No.

Q. Did you know that Cisco retained Mr. Waldbusser in – during the litigation that resulted in Cisco licensing the Packet Intelligence patents?

A. I vaguely heard about it, but I was not sure whether he was officially involved with that.

Q. Did you ask him?

A. No.

Q. Mr. Singhal, have you – you have not read the patents that are at issue – the three patents that are at issue in this trial, have you?

A. I have not read the patents from cover to cover, but I have – I've read it at a high level and enough to have a good discussion with my Counsel.

Q. You just read a summary or an abstract of one of the patents; is that right?

A. I don't remember exactly.

Q. You don't remember one way or the other?

A. Yeah, I don't remember.

Q. You may have read the patent – the three patents in this case, you may not have read them?

A. I don't remember how many of them I read. And – but I know the general idea about – it's about [88/Appx1603] classification and monitoring of networks.

Q. The fact is, you haven't – you haven't read one of them cover to cover, right?

A. Yes.

MR. SKIERMONT: I don't have anything further, Your Honor.

THE COURT: You pass the witness?

MR. SKIERMONT: Pass the witness.

THE COURT: Redirect.

REDIRECT EXAMINATION

BY MR. KRAEUTLER:

Q. Mr. Singhal, did the LAN Vista probe include a packet acquisition device coupled to a connection point on the network where it could receive packets passing through the network?

A. Yes.

Q. Did the RMON1 device, the Model 6010, include a packet acquisition device coupled to a connection point where it could receive packets passing through the network?

MR. SKIERMONT: I'm going to object, Your Honor, and ask for a sidebar.

THE COURT: Approach the bench.

(Bench conference.)

MR. SKIERMONT: This is similar to

* * *

[204/Appx1719] gibberish out of the whole recognition process.

Q. Now, in doing your analysis of Claim 19, did Dr. Almeroth dispute all of the positions you've taken in this case?

A. No, he did not.

Q. And can you identify which parts of the claim you don't believe are disputed by Dr. Almeroth?

A. Well, the preamble to Claim 19 is undisputed, Limitations (b) and (c) are undisputed, and finally, the wherein clause, he did not have any reason to dispute those.

Q. So why don't we walk through your analysis of – of this claim, and using your – the example that you had, can you just explain your – your opinion about whether this element is met?

A. Sure. So we're going to walk through the diagram and – and match up some of the steps with what's happening in the NetScout probe.

So we're talking about SunRPC where Bob's computer sends an RPC request, and we find that a packet monitor for examining packets is met by the probe itself.

Q. And that – where is that shown on this diagram?

A. Well, it's the – both the red box and the [205/Appx1720] picture of the – of the NetScout probe.

Q. So that's the – the first element you believe that is met by the prior art probe?

A. That's right. That's its fundamental purpose.

Q. And what other evidence did you find for that?

A. Well, the – the manual says that the probe agents gather this information by examining each and every packet that is passed in the network segment that is attached to the probe's monitor interfaces. So that shows me that it is performing the preamble.

Q. So in your opinion, is this element met?

A. It is met.

Q. So I will check that.

Let me go to the next element of this claim, a packet acquisition device. Is that element met by the NetScout probe?

A. Yes, it is.

Q. Could you explain your opinion?

A. Well, the packet acquisition device is – are the interfaces on the back. And I've – when I was examining the source code, I also found elements of the source code that – that showed me that these were interfaces – that these interfaces were packet acquisition devices.

Q. Did you find other evidence?

[206/Appx1721] A. In the manual, the – that same section of the manual talked about examining each and every packet passed on the network segment.

Q. So based on the evidence that you've seen, does the prior art probe meet this element?

A. It does.

Q. Check that box.

Let me go to the next element, an input buffer memory. Is this element met by the NetScout probe?

A. Yes, the NetScout probe has an input buffer memory, and I found this in the source code. The input buffer memory is the place where the packet is stored so that it can be examined. And this shows the source code that I found that is – that implements that, that that buffer memory, that it refers to allocating the next received buffer. That's where the packets are received into.

Q. Now, can you just explain what the jury is seeing at the bottom of this slide?

A. This is –

Q. By the way, an excerpt from DX-67.

A. Yeah, this is an example of programming language source code. So this – these are instructions written by a programmer to tell a computer what to do. Though in – in – intermixed in the – in the computer [207/Appx1722] code, the programmer can write English comments just in their own freehand that describes what the code is going to do, and that's what I've highlighted here.

Q. And so based on the evidence you've seen, is the input buffer memory element met by the NetScout probe?

A. It is met.

Q. Check that.

Let's go to – the next element is a parser subsystem. Is this element met by the NetScout probe?

A. Yes, it is.

Q. And what is your – the basis for that opinion?

A. Well, first of all, the – this – the first thing I'd like to show you is the top of a file called the pp.c. And this is – where pp stands for protocol parser. And this is – the description of it is that it's a protocol parsing and configuration function. And this was written by Mr. Singhal.

Q. Is there other evidence that you considered in connection with this element?

A. Yes. This – this source code that I have highlighted here meets the elements of the claim that – that –

THE WITNESS: Can you go to the next [208/Appx1723] slide, please?

A. The – the – the – this part that says src port is – is parsing – is first of all, slicing and then – and then extracting that – that piece of the packet. And then it is – there we go – it's parsing it – it's – it includes a slicer, which is what divides it up and pulls – pulls the pieces out. It extracts the pieces in this – in Lines 1890 and 1891, and then in the combination of the four lines is what accomplishing – accomplishes the outputting of a parser record.

Q. (By Mr. Lyons) And so in your opinion, is this element met by the NetScout probe?

A. Yes, it is.

Q. Go to the next Element (D): A memory for storing a database comprising none or more flow-entries for previously encountered conversational flows.

Is this element met?

A. Yes, it is.

Q. Could you explain your opinion?

THE WITNESS: Could you go to the next slide, please?

A. This is – the step we're speaking of where the – the key from the packet is – is added – looked up and then added to the table.

[209/Appx1724] THE WITNESS: So next slide, please.

A. And this is the code that implements that table. So first of all, the title of the file is trackses.h, which is short for TrackSessions. And the – the lines that are highlighted at the top right now represents the key that is the portion of the database that stores the key.

And then the next line that was just highlighted, program number, this is where the application field of the table is stored.

And then finally, the last_activity_time is we – where we store some statistical information about the – about this connection, and that says, for instance, if we were to record seven seconds past 10:00 a.m.

Q. (By Mr. Lyons) Can you continue with your example?

A. Well, this limitation also required that – evidence of conversational flows, and remember that's where we're going to remember the port number and join the connections together and so –

THE WITNESS: Keep going with the animation, please.

A. So here we remember the port number. We – we put the port number in this port mapper packet,

examine [210/Appx1725] that packet, correlate the red key to the new purple key where we're – where we're remembering the port number. That's the process that I'm about to show you. So it – part of it is unsurprisingly in trackses.h with – for TrackSessions.

Then also part of it is in the –

THE WITNESS: Can you go back one slide, please?

A. The pp.c has the – has the code that remembers the port. That Line 1817 actually remembers the port, and the highlighted comment above it tells a little bit about what it's doing. It's assigning the new port for the previously asked program, and then assigning the port.

And then on the next slide it shows the – the code that swaps the hash bucket. And then it –

Q. What does that mean?

A. Well, it means that we're – it essentially means we're adding this new entry to the table.

Q. What's – what's –

A. In other words, adding the purple key to the – to the – to the hash table.

THE COURT: Gentlemen, please don't talk over each other.

THE WITNESS: Sorry, Your Honor.

[211/Appx1726] Q. (By Mr. Lyons) So can you explain how that informs your decision about – opinion about whether this element is met?

A. Oh, when I found those things, I realized that I found all the elements for the conversational flow.

Q. And so is this element met?

A. Yes, it is.

Q. Let's go to Element (E). And can you explain whether you have concluded that the look-up engine element is met?

A. Sure. I think – I think we have an animation on the look-up engine, or maybe not. We've seen that already.

But this is the code for the look-up engine, and it starts with a comment by the programmer, and – which says check the port number, protocol, interface number, and source and destination address. You might recognize those as the fields of the 5-Tuple. Those are the – those are the important parts of the key. And checking means matching. And the code underneath is the code that's actually doing the matching and – and forming it into the key.

Q. So based on – on that evidence, do you have an opinion about whether this element is met?

A. Yes, this element is met.

[212/Appx1727] Q. Let's go to Element (F), a flow insertion engine. Is this element of the claim met?

A. Yes, it is.

Q. Can you explain your – your analysis?

A. Well, when the – when we look for a key and don't find it, we need to add it to the table. And the code for that is here – in Line 1092, it says to add it at the – at the new – the new entry. And the code from 1102 to 1116 is the code that actually creates this new – initializes this new entry.

Q. Now, can you explain what happens after the – that sequence of steps?

A. Well, what's – what's happened there is that the – the new key has been added.

THE WITNESS: And then can you go to the next slide?

A. This is the code that – that's looking – that's – that's had – classifying the – the packet-based on the flow that it was just added to, based on the fact that the port information was matching.

Q. (By Mr. Lyons) So based on – on that, have you determined whether the flow insertion engine is present in the NetScout probe?

A. Yes, that – I found that it was there.

[213/Appx1728] Q. And, now, lastly, there's a wherein clause. Is this element met?

A. It is. This is the one that says that the – that the probe needs to depend on the protocols of the packet.

Q. And do you have an opinion about whether this element is met?

A. Yeah. There are many examples of code that meets this. This is just one of them. In fact, the protocol parser is littered with code that meets the element of – of being dependent on protocols. But this one is the code that – that runs when – when it's – when you can't discover the protocol.

Q. So based on that, do you have an opinion of whether this element is met?

A. Yes, this element is met.

Q. Check that off.

So could you just sort of sum up your opinions about this claim, please?

A. Well, in order to show invalidity through anticipation, I need to show that each of the limitations of a claim are met. And – and I've just walked through that process. And those are the steps that link two connection flows together into one conversational flows – one conversational flow.

[214/Appx1729] Q. Now, if we look at the claim as a whole with all the elements assembled together, can you explain your overall opinion, please?

A. That Claim 19 is invalid.

Q. Now, did you also consider Claim 20 of the – of this patent?

A. I did.

Q. And is this element met?

A. Well, Claim 20 is a lot easier because it depends on all the claims – all the limitations that I just showed you.

In addition, I need to show one more, which is that it's accepted by the packet buffer memory and examined by the monitor in real-time. And the key part there is that it happens in real-time.

Q. And do you have an opinion about whether that – that occurs?

A. Yes, it does.

THE WITNESS: Go to the next slide, please.

A. First of all, we'll show that it's examining, accepted by packet buffer memory and examined by the monitor in this manual section here.

Put in the memory and the next received buffer.

[215/Appx1730] And then with regards to the real-time component, this is Mr. Singhal's software code in a – in a – in a file called rtproc.c where rt stands for real-time. And the description says that it contains the top level real-time procedure.

Q. (By Mr. Lyons) Based on this evidence, do you have an opinion about whether this element is met?

A. This element is met.

Q. So if we go back to – to both claims for – both asserted claims in the '789 patent, do you have an opinion about whether these are valid?

A. Both of these are invalid.

Q. Let's go to the – the next asserted patent, the '751.

Once again, was the Patent Office aware of the NetScout probe when they were evaluating whether to grant this patent?

A. No, it was not amongst the disclosure for this patent.

Q. So let's turn to Claim 1 and go through these elements.

The first element is a method of analyzing a flow of packets. Is this element met by the – the NetScout probe?

A. Yes, it is.

[216/Appx1731] Q. And why do you – why did you conclude that?

A. Well, this is a fundamental activity of any probe.

Q. So your opinion is this element is met?

A. Yes, it's – probes analyze flows of packets.

Q. And why don't we go to the next element of the claim, receiving a packet from a packet acquisition device, is this element met?

A. Yes, this is standard procedure for a probe.

Q. And did you see any evidence to support your conclusion?

A. Yeah, the probe manual says that it does exactly that.

Q. So is this element met?

A. Yes.

Q. Let's look at the next element of the claim, Element (B) for each received packet, looking up a flow-entry database, is this element of the claim met?

A. Yes, it is.

Q. And first of all, did you consider the Court's construction in analyzing this element?

A. Yeah, this element has a definition that was decided by the Court that says that a flow-entry database is a database configured to store entries where each entry describes a flow. And so when I analyzed [217/Appx1732] this, I used this definition as – as part of the analysis.

Q. And what did you conclude?

A. That I found this flow-entry database.

Q. And what was that based upon?

A. Well, this code here, which we just saw earlier, you know, showed matching the keys with – and, there – therefore, looking up the entries in the flow table.

Q. Now, what opinion did you reach regarding the highlighted portion of the claim, a set of one or more states, including an initial state?

A. The code that I have highlighted here on the very bottom we have a comment that talks about initializing the port info fields. And right below it is a section of code where we're doing the actual initialization to a variable called curr_state. In other words, current state. The state is – it says what's the state of this flow. And we're initializing it in this code.

Q. Now, this limitation also has the conversational flow element. Did you have an opinion about whether that's met in this claim?

A. Yes, I – I found the conversational flow limitation here.

[218/Appx1733] Q. And can you explain, again, what that was based on?

A. Yeah, this is, like before, the references to tracksession.h. The – the remembering the port code that is on Line 1817 and describe – described up above.

And then finally, the – the code on 1835 and 1836 that takes the remembered port and adds it to the table.

Q. And based on this evidence, have you concluded whether this element is met?

A. Yes, it is met.

Q. So let's go to the next element, (C). Do you have an opinion about whether this element is met?

A. I found that it is met.

Q. Can you explain your analysis?

A. Sure.

Now, this has – this one has several components, but they're grouped in the same section of code.

The first step is to find the code that identifies the last encountered state, and that's where we find that last encountered state in the variable well-known port. That's the state that was remembered from the well-known connection, the first connection.

Then in green we perform the state operation [219/Appx1734] specified for the state, and that state operation is to assign the old well-known port into the – into the subid and hash_id variables.

And then finally, we want to store a statistical measure, and that is done in the orange highlighted text at the bottom. This code is just writing down the current time of day. Marking this connection with the last time of day so that we can keep track of the time of the packets.

Q. And what part of this matches the requirement to show the statistical measure?

A. Well, the last – the last two lines. The – the updating the last activity time meets the patent's definition of a statistical measure.

Q. Does the patent give any indication whether the time is related to statistical measures?

A. Yeah, it does. And that was a pop-up here. It says that each flow-entry includes one or more statistical measures. For example, the packet count related to the flow, we've seen that, the time of arrival of a packet, and that's exactly what this is, or the time differential. Time differential is something that we've seen also in the packet – in the – in the – in the code.

Q. And so based on all of this analysis do you [220/Appx1735] have an opinion about whether this element is met?

A. This element is met.

Q. Let me go to the next element in the claim, and is this element met?

A. Yes, Limitation (D) is met.

Q. And could you explain your analysis, please?

A. Yeah.

THE WITNESS: Can you go to the next slide, please?

A. So this is also separated by color. Now, the code comes from that protocol parser file, and so the green text says to – that we want to perform state

operations required for the initial state of the flow. And you can see that I've highlighted 1102 and 1103 where we're initializing the port info fields, in particular the curr_state field.

Then where in yellow we get to store new flow-entry for the new flow in the flow-entry database. And this ADD_TO_HASH function is the – is the code that adds the – the flow-entry to what's called a hash table. That's why it says ADD_TO_HASH.

Q. (By Mr. Lyons) And based on that analysis, did you consider any other code in your analysis?

A. Well, this one also required storing one or more statistical measures in this new flow. And so the [221/Appx1736] code snippet below, I point out that it's a new flow. And we're actually initializing the statistical measures on 887.

Q. So based on that evidence and this additional information, did you – can you explain what other evidence you considered for this element?

A. This – these were more statistical measures. The frame time is another timer. And also, the request count where we're updating the counter, it's how many packets were received.

Q. And this code is from DX-48. And based on your analysis of this, did you include – what did you conclude about this element?

A. I found that this element – this limitation was met.

Q. And why don't we go to the next one.

The element wherein every packet passing through the connection point is received by the packet acquisition device, is that element met?

A. It is.

Q. And can you explain why you concluded that?

A. And this one simply meant by showing that it is – has an interface – a packet acquisition device that is receiving packets.

Q. And so based on that, is this element met?

[222/Appx1737] A. Yeah, the manual shows that.

Q. The next element is wherein at least one step of the set consisting of, and it lists a step (a) and a step (b)?

A. Uh-huh.

Q. Is it your opinion this element is met?

A. Yes.

Q. Can you explain your analysis?

A. Where the text below or the source code below shows a – a protocol being used in the case – in this case, it's the well-known port from the first connection is – does identify a protocol – for example, email – and it's – it's part of a plurality of protocols. Plurality means more than one. And it means that it is selected

from many protocols. It could be email. It could be port mapper. So this limitation is met.

Q. Let's go to the next element or the last element. Such that the flow-entry database is to store flow-entries for a plurality of conversational flows.

Is this element met?

A. Yes, it is.

Q. And can you explain your analysis?

A. Yeah. There are two key parts here. In yellow, we need to store flow entries. And I've pointed to this ADD_TO_HASH function because we're storing flow [223/Appx1738] entries in this hash table. And then the disc_rpc_children here is an example of – of the plurality of layer levels because RPC refers to the RPC protocol that's part of SunRPC that's a part of a protocol called TCP which is part of IP. So it's – there are many protocols involved in – in that – in that protocol.

And finally, that it's above the network layer.

Q. And you also analyzed the limitation requiring conversational flows?

A. I did. And this was met by the same code that I showed earlier from tracksessions.h, the one that – the – the part that's remembering the port, adding it to the assigned port variable, and then adding the key to the table in – which is the hash table variable.

Q. And so do you have an opinion about whether this element is met?

A. This one is met.

Q. Check that off.

And in light of – we'll assemble all the checkmarks here on one page. Can you just give a summary of your opinion for Claim 1 of the '751 patent, please?

A. In – yeah. In light of the fact that there [224/Appx1739] are – that each of the limitations is met, I found that this claim is invalid.

Q. Let's go to Claim 5 of the '751 patent. Do you have an opinion about whether this element is met?

A. This element is met. It's a dependent claim, so it only – it incorporates all the limitations from before which I've already shown are met, but then we have the one new limitation.

Q. Now, first of all, is there any dispute between you and Dr. Almeroth about whether this element is met by the NetScout probe?

A. There is not any dispute.

Q. And can you explain your analysis for this claim?

A. Well, this claim element – element adds the need to report one or more metrics and that these metrics be related to one or more statistical measures in the flow-entry. And the – the reporting, as well as the statistical metrics, are found in Line 991 and 992, which performs – it actually keeps track of the

difference in time between two packets, and that is an example of a time differential.

And then that – that's reported through a subsystem that's going to send them to SNMP.

Q. So is this element met?

[225/Appx1740] A. Yes.

Q. And going back to – looking at both of the asserted claims for the '751 patent, based on your analysis, do you have opinion about whether Claim 5 is valid?

A. Claim 5 is – I found that to be invalid.

Q. And so both – and what is your opinion about both claims?

A. Well, both – both claims – asserted claims from this patent are invalid.

Q. So why don't we go to the last patent, the '725. And once again, when you reviewed the file history, did you see any indication that the NetScout probe had been considered by the Patent Office before it issued this patent?

A. No, there was no record of that.

Q. And so let's turn to Claim 10. First of all, are there any areas where you and Dr. Almeroth are not in dispute with regard to this claim?

A. Yeah. For this claim there's a lot where we're not in dispute, a lot where – well – Limitations (B) and

it's sub-limitations, as well as (C), which together account for a lot of this claim, are not disputed.

Q. All right. Let's start with the preamble [226/Appx1741] here. A method of performing protocol specific operations. Is this preamble met by the prior art NetScout probe?

A. It is met.

Q. And can you explain your analysis?

A. Well, it's – this is a standard thing that an RMON probe does, performing protocol specific operations on a packet passing through a connection point.

Q. And so this element is met?

A. It is.

Q. And let's look at the next element, receiving the packet. Is that element met?

A. Yes, it is.

Q. What's the basis for this patent?

A. Well, once again, the manual shows it, and it's – and I also know it to be a standard part of a probe. This is something that – that is typical.

Q. So this element is met?

A. Yes.

Q. And let's go to the next element in the claim, Claim (B) – Element (B), receiving a set of protocol descriptions. Is this element met?

A. It is.

Q. Please explain your analysis.

A. Well, this – this part is a little bit [227/Appx1742] different. So we need to show that – that the – that there's a set of protocol descriptions following a layered model, and nearly all the protocols do follow later – layered model.

What I show here is that PP_ID_TCP, which refers to the TCP protocol on Line 295 – I'm told I can mark these. And PP_ID_IP, this shows the layered model. It says: The TCP is a child of IP. That's the relationship there.

And – and we also have another – another entry for IP here. So this is a layered model, and a plurality – plurality of protocols, because there's more than one. There's both TCP, and there's IP.

Q. And did you consider any other evidence with regard to this element?

A. Yes.

Q. Can you explain?

A. Well, the other part of the element requires that these be received by the – by the device. And the protocol descriptions I showed you on the previous page, they're compiled into firmware. And the firmware can be loaded into the probe through the TFTP protocol.

And this – the manual talks about how that's done. The highlighted part says that it loads the new agent code from a TFTP server into the probe. So that [228/Appx1743] agent code includes the firmware that includes those protocol descriptions I just showed you. And this TFTP process is loading it into – or receiving it into the probe.

Q. And based on your analysis of this evidence, is this element met?

A. Yes.

Q. Go to this next section of the claim. And can you – do you have an opinion about whether this element is met?

A. Yes, it is.

Q. And can you explain, please?

A. So here, there was a – a Court's claim construction to – to take into account. The child protocol was construed to be a protocol that is encapsulated within another protocol. And I took that into account in this analysis.

Q. Can you explain your opinion on this element?

A. Well, essentially there were two things I needed to show. One was the protocol layering, like I had shown earlier, where TCP is a child of IP. And that shows child protocols.

And then that – there's in blue information at one or more locations. And the information is the value 0, 0, 0, 6.

[229/Appx1744] Q. Based on that analysis, did you conclude this element was met?

A. I did.

Q. So let's check that box.

And go to the next element, (ii), the one or more locations in the packet. Is this element met?

A. It is.

Q. And can you explain your analysis?

Mr. Waldbusser, I think you may be able to clear your screen.

A. Oh, yes.

Okay. So the – so the code here needs to show the one or more locations in the packet. And the – the blue-colored section in the code below in Line 1871 is code that actually reaches into a packet and pulls out a particular location of the packet, it's a particular port of the packet, the destination port. That's a location in the packet just like the limitation is looking for. And it's related to a child protocol because this code is part of the code that looks at tcp_children – children of the TCP PROTOCOL and, therefore, it meets both of these limitations.

Q. So we'll check that box.

Why don't we go to the next element? If there is at least one protocol specific operation to be [230/Appx1745] performed, is this element met?

A. It is.

Q. And please explain your analysis.

A. Well, the – the protocol specific operation in this case is to extract the – the destination port and then to put it into the subid variable in – in Line 1870. And this is dependent on a particular protocol or it's for a particular protocol because it's for the TCP_PROTOCOL. It's an activity for the TCP_PROTOCOL.

Q. So is this element met?

A. Yes, it is.

Q. Let's go to Element (C), performing the protocol specific operations. Is – is this element met?

A. Yes, it is.

Q. Can you explain your analysis, please?

A. Well, this is the same code because the – the first one was to show that the – that we have a list of protocol specific operations. And then Claim (C) says to do it, to perform them. And this is – this code does both. It actually – this is code that shows the protocol specific operation and then also includes it – or – or, I'm sorry, performs it.

Q. So is this element met?

A. Yes.

[231/Appx1746] Q. Go to the back to the claim, go to the wherein clause, wherein the protocol specific operations include, is this element met?

A. It is.

Q. Can you please explain your analysis?

A. Okay. So there's – there's three important things going on here. This limitation requires that we're parsing the packet, that we're extracting things from the packet, and that we're forming a function of the – of the selected portions.

So the – the parsing is the – are the source port and the destination port references on the right. We're pulling the – parsing those – actually, that's the extracting part, we're extracting those out. We're parsing them on those same lines and GET_PORT information and the GET_PORT function call.

And then finally, all of these together form a function, Lines 1889 through 1892. When we call the track_session check, that's – that's what's called forming a function of these – of this information. And that meets each of these three limitations, or these subelements of this limitation.

Q. This limitation also requires conversational flow; is that right?

A. Right. This is the same type of – same code [232/Appx1747] before that referenced the tracksession.h, the – the remembering the port portion of – of where we – we're putting it in the assigned port. And

then we're storing the new purple key by the ADD_TO_HASH function in 1835.

Q. So in your opinion is this element met?

A. Yes.

Q. So if we go back to the claim as a whole, what is your opinion about whether Claim 10 is – whether Claim 10 is valid?

A. I found that Claim 10 is not valid because each of the limitations has been found.

Q. In the NetScout probe?

A. In the NetScout probe.

Q. So why don't we go to the last claim, Claim 17.

And –

THE COURT: Counsel, approach the bench, please.

(Bench conference.)

THE COURT: How much longer do you think you're going to be, Mr. Lyons?

MR. LYONS: Almost done with validity. And then infringement should go a lot faster. I would say 15 or 20 minutes.

THE COURT: Okay. I think we'll recess

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PACKET INTELLIGENCE LLC	) (	CIVIL DOCKET NO.
VS.	) (	2:16-CV-230-JRG
NETSCOUT SYSTEMS, INC. TEKTRONIX COMMUNICATIONS, AND TEKTRONIX TEXAS LLC	) (	MARSHALL, TEXAS
	) (	OCTOBER 12, 2017
	) (	8:30 A.M.

TRANSCRIPT OF JURY TRIAL

BEFORE THE
HONORABLE JUDGE RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE

APPEARANCES:

FOR THE PLAINTIFF: Mr. Paul J. Skiermont
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Mr. Steven K. Hartsell
Mr. Alexander E. Gasser
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* * *

[5/Appx1755] Mr. Lyons, you may return to the podium.

MR. LYONS: Thank you, Your Honor.

THE COURT: And once they're situated, Mr. Johnston, you may bring in the jury.

COURT SECURITY OFFICER: All rise for the jury.

(Jury in.)

THE COURT: Please be seated.

Welcome back, ladies and gentlemen.

If you'll recall, we concluded yesterday's portion of the trial with the Defendant examining the witness in direct examination. We'll continue with the Defendants' direct examination of Mr. Waldbusser at this time.

Mr. Lyons, you may proceed.

MR. LYONS: Thank you, Your Honor.

STEVEN WALDBUSSER, DEFENDANTS' WITNESS, PREVIOUSLY SWORN
DIRECT EXAMINATION (CONTINUED)

BY MR. LYONS:

Q. Good morning, Mr. Waldbusser.

A. Good morning.

Q. Before we get started, could I just ask you if – if you're married?

A. I am.

Q. And do you have any children?

[6/Appx1756] A. I do. I have a boy and a girl. They're – they're twins. They're both 15.

Q. Now, when we left off yesterday, we were discussing invalidity of the '725 patent, do you recall that?

A. Yes.

MR. LYONS: And if we could look at Slide 431, please?

Q. (By Mr. Lyons) Could you please remind the jury – could you remind the jury about the basis of your – what was the focus of your opinion of validity with regard to – to this patent?

A. Could you –

Q. What was the product that you were focused on and you're analyzing?

A. Okay. Yeah. So the '725 patent, I was comparing it to the NetScout probe with TrackSessions in the 4.5 release.

Q. And was that a product that the Patent Office had considered when it was evaluating whether to issue any of the asserted patents?

A. No, the inventors didn't disclose that product to the examiners, so they didn't have a chance to – to look at it.

Q. Yesterday, we had already discussed Claim – [7/Appx1757] Claim 10. And can you just remind the jury about what your opinion was with regard to that claim?

A. That Claim 10 was – was anticipated. All the elements of Claim 10 were in the NetScout probe that – and that was – I – I found that by examining the probe carefully, finding each of the – each of the limitations.

MR. LYONS: And if I could ask Mr. – oh, thank you.

Q. (By Mr. Lyons) And so what is your opinion about the validity of Claim 10?

A. That it's invalid.

Q. Did you also consider whether the other asserted claims from the '725 patent, Claim 17, whether that's valid?

A. Yes, I did.

Q. And what was your conclusion?

A. That it was also invalid.

Q. Can you explain your analysis by comparison to – to Claim 10, please?

A. Sure. Well, Claim 17 is a lot – is very similar to Claim 10. It – the beginning of the claim is exactly the same, and that's the – the part shaded in yellow here. The only part that differs is what we call the wherein clause at the very end. And so all of [8/Appx1758] the analysis that I did for Claim 10, or most of it, applies to – to Claim 17.

Q. So referring to the – the Slide on the screen, can you explain the implications of what you just stated?

A. Well, essentially, where I found that the limitations matched in Claim 10, I can use that same analysis for the beginning of my analysis for Claim 17. And that leaves me with only the need to examine the wherein clause at the end, and that's the part that's different.

Q. And did you examine whether this element was also met –

A. Yeah.

Q. – by the – the accused product – or by the NetScout probe?

A. Yes, I did.

Q. Can you explain your analysis of that element, please?

A. Well, the one key part of this is that it – is that the flow has a set of one or more states, and I found that code in the Track – in the TrackSessions check function of the protocol parser file, pp.c. And you can see it highlighted here, this is where the curr_state – or current state variable is – is – [9/Appx1759] is – is accessed and compared.

Q. The claim language also refers to a conversational flow; is that right?

A. It does.

Q. And do you have an opinion about whether that's met by the NetScout probe?

A. Yes. This is met in the same way that I was showing yesterday with the three elements that are probably familiar by now, that the – the flows – the flow table is described in the tracksession.h file.

The – then the remember, the core element, remember that's the linchpin to both the – both the RMON TrackSessions, as well as the patent. The remember the port function happens on Line 1817.

And then finally, the – the key with the remembered port is stored in – in Line 1835, it's stored in a hash table with the ADD_TO_HASH function.

Q. Now, did you also analyze the remaining portions of this element of the claim?

A. Yes.

Q. Can you explain your analysis, please?

A. Well, the – the part from the patent that I've highlighted above talks about the state processing operations that are a function of the state of the conversational flow of the packet. And – and the – [10/Appx1760] the – Line 1817 here where we pull the – the assigned port, we remember the – we remember the port. Well, that's part of the state of the flow. And so we're adding it to the state of the flow when we – when we perform this operation.

Q. Based on your analysis, did you conclude whether this element is met by the NetScout probe?

A. I did.

Q. What is your opinion?

A. That – that this – that this limitation is met and that the – that the – since it's the last limitation of the claim, that the whole claim is – is – has been found in the NetScout probe.

Q. Do you have an opinion about whether Claim 17 of the '725 patent is valid?

A. Yes, it is invalid.

And the – so this was the last of the claims. There were six asserted claims. And, you know, I've gone through each of them to show that each of them is invalid. And this makes sense because the – if the NetScout probe copied the TrackSessions function

from the – from the RMON group's TrackSessions, and the patent also copied the Track – TrackSessions function from the RMON stuff, it makes sense that these two are the same and that I found that they're the same in – [11/Appx1761] for each and every one of these claims.

And the only difference is that we asked vendors like NetScout to implement TrackSessions. We didn't ask somebody to come along and pass their – our invention off as their own in a patent.

Q. Mr. Waldbusser, in addition to your invalidity opinions that you – you've offered in this case, did you consider any other issues?

A. I did.

Q. What was that?

A. The issue of whether or not the accused products infringe.

Q. And can you explain what exactly you were asked to do on this issue?

A. I was asked to determine whether the accused products, and remember, that's the – the G10 and the GeoBlade, and their – their pictures are shown here – whether these products infringe any of the asserted patent claims.

Q. What did you consider in making this evaluation?

A. A lot of things. I had a lot of information at my disposal to – to do this, and to – you know, to do the proper analysis.

First, there are the patents. And I looked at

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