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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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 extraction 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 498, 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." *EEOC 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 material 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 Meter-Flow 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. Instead, 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.

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.

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. 14. 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 explains 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,' 'controlling,' '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. 15, 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 innovation of the claim that "simply restates what we have

[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").

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 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.