

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner,

v.

ORCKIT CORPORATION,
Patent Owner.

IPR2023-00554
Patent 10,652,111 B2

Before KRISTEN L. DROESCH, NATHAN A. ENGELS, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

DOUGAL, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. *Background and Summary*

Petitioner, Cisco Systems, Inc., requests that we institute an *inter partes* review challenging the patentability of claims 1–9, 12–24, and 27–31 (the “challenged claims”) of U.S. Patent 10,652,111 B2 (Ex. 1001, “the ’111 patent”). Paper 1 (“Petition” or “Pet.”). Patent Owner, Orckit Corp., argues that Petitioner’s request is deficient and should not be granted. Paper 6 (“Preliminary Response” or “Prelim. Resp.”).

Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we institute an *inter partes* review.¹

B. *Related Matters*

The parties identify the following related district court litigation: *Orckit Corp. v. Cisco Systems, Inc.*, No. 2:22-cv-00276 (E.D. Tex.) (“parallel district court proceeding”). Pet. 78; Paper 7, 2.

C. *The ’111 Patent*

The ’111 patent is titled “Method and System for Deep Packet Inspection in Software Defined Networks.” Ex. 1001, code (54). Deep Packet Inspection (“DPI”) is a technique for examining network communications that can be used to extract data patterns from a data communication channel. *Id.* at 1:21–25. The extracted data patterns are useful for a variety of purposes, including network security and data analytics. *Id.*

¹ Our findings and conclusions at this stage are preliminary, and thus, no final determinations are made.

A software defined network (“SDN”) is a networking architecture that provides for centralized management of the nodes in a network, as opposed to the distributed architecture utilized by conventional networks. *Id.* at 1:30–38. For example, a SDN may utilize a controller to manage network nodes such as vSwitches. *Id.* SDN-based architectures typically decouple the data forwarding (*e.g.*, data plane) from control decisions (*e.g.*, control plane), such as routing, resources, and other management functionalities. *Id.* at 1:39–49. The decoupling may allow the data plane and the control plane to operate on different hardware, in different runtime environments, and/or operate using different models. *Id.*

Figure 1 shows a method for DPI in an SDN.

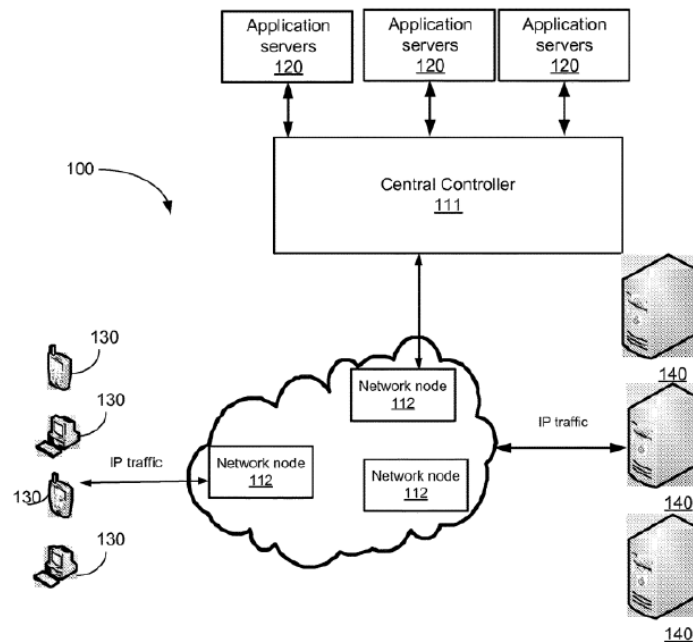


FIG. 1

In the embodiment of Figure 1, above, a network system 100 includes a controller 111 “configured to perform deep packet inspection on designated packets from designated flows or TCP sessions” by “instruct[ing] each of the network nodes 112 which of the packets and/or sessions should be directed to the controller 111 for packet inspections.” *Id.* at 4:5–11. The

network node may be instructed to either redirect the packet to controller 111 or send the packet to the destination server 140. *Id.* For example, the controller may send a “probe” instruction to a network node such that, when the network node receives a packet that matches a “packet-applicable criterion,” the network node will “mirror” (i.e., send) some or all of the packet to a security component for inspection. *Id.* at 2:3–44.

D. Illustrative Claim(s)

Of the challenged claims, claim 1 is the only independent:

1. A method for use with a packet network including a network node for transporting packets between first and second entities under control of a controller that is external to the network node, the method comprising:

sending, by the controller to the network node over the packet network, an instruction and a packet-applicable criterion;

receiving, by the network node from the controller, the instruction and the criterion;

receiving, by the network node from the first entity over the packet network, a packet addressed to the second entity;

checking, by the network node, if the packet satisfies the criterion;

responsive to the packet not satisfying the criterion, sending, by the network node over the packet network, the packet to the second entity; and

responsive to the packet satisfying the criterion, sending the packet, by the network node over the packet network, to an entity that is included in the instruction and is other than the second entity.

Ex. 1001, 10:52–11:4.

E. Evidence

Petitioner’s grounds of unpatentability rely on the following evidence:

Name	Patent Document	Exhibit
Lin	US 9,264,400 B1 (Feb.16, 2016)	1005
Swenson	US 2013/0322242 A1 (Dec. 5, 2013)	1007
Shieh	US 2013/0291088 A1 (Oct. 31, 2013)	1006

F. Prior Art and Asserted Grounds

Petitioner asserts the following grounds of unpatentability (Pet. 4–5), supported by the declaration of Samrat Bhattacharjee, Ph.D. (Ex. 1004):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–9, 12–24, 27–31	103	Lin, Swenson
1, 5–9, 12–24, 27–30	103	Shieh, Swenson

II. DISCRETION UNDER 35 U.S.C. § 314(A)

Patent Owner contends the Board should exercise its discretion to deny institution under 35 U.S.C. § 314, citing the discretionary-denial factors articulated in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). *See* Prelim. Resp. 23–36. More specifically, Patent Owner contends that consideration of the *Fintiv* factors weigh in favor of discretionary denial. *Id.* Petitioner disagrees. Pet. 74–77.

Under § 314(a), the Director has discretion to deny institution of an *inter partes* review, and that discretion has been delegated to the Board. *See* 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”); *SAS Inst. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (“[Section] 314(a) invests the Director with discretion on the question whether to institute review” (emphasis omitted)).

In *Fintiv*, the Board articulated the following factors for consideration when determining whether to exercise discretion to deny institution in view of a parallel proceeding:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

Fintiv at 5–6. “These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Id.* at 6. In evaluating these factors, we take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* (citing Patent Trial and Appeal Board Consolidated Trial Practice Guide November 2019, 58).

Subsequently, the Director issued additional guidance on the application of *Fintiv*. See Vidal, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022) (“*Fintiv* Memo”). The application of this guidance is further guided by the precedential decisions of the Director in *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102, 49–50 (Oct. 4, 2022) (precedential) and *CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-

01242, Paper 23 (Feb. 27, 2023) (precedential) (“*CommScope*”).

Accordingly, we are instructed to consider compelling merits under the sixth *Fintiv* factor only after a determination that the first five *Fintiv* factors favor discretionary denial. *CommScope*, 4–5. “Compelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Fintiv* Memo 4.

For the reasons that follow, although we find that the considerations of the first five *Fintiv* factors weigh in favor of denying institution in this case, we determine that the Petition presents compelling merits as to the challenged claims, and thus, we decline to exercise our discretion to deny the Petition.

A. Factor 1: Whether the Court Granted a Stay

Patent Owner contends that Petitioner’s motion to stay filed in the parallel district court proceeding was promptly denied, which strongly favors discretionary denial. *See* Prelim. Resp. 25–26; Ex. 2005, 3. According to *Fintiv*, the existence of a district court stay pending Board resolution of an *inter partes* review has weighed strongly against discretionary denial, although a denial of such a request sometimes weighs in favor of discretionary denial. *Fintiv* at 6–8. Due to the denial of Petitioner’s motion to stay in the parallel district court proceeding, we determine that the considerations of the first *Fintiv* factor weigh in favor of discretionary denial.

B. Factor 2: Proximity of Trial Date

Patent Owner asserts that the second *Fintiv* factor weighs heavily in favor of discretionary denial because trial in the parallel district court proceeding is scheduled to begin March 4, 2024 and a final written decision

is expected no later than September 26², 2024. *See* Prelim. Resp. 26–27 (citing Ex. 2001, 1). Patent Owner further indicates that the most recent statistics indicate a time-to-trial in the Eastern District of Texas of 19 months, and using these statistics, the projected trial date would be around February 2024, which is roughly 7 months before an expected final written decision. *See id.* at 27–29.

Due to the projected trial date based on time-to-trial statistics and the actual trial date being more than six months before an expected final written decision, we determine that the considerations of the second *Fintiv* factor weigh in favor of discretionary denial.

C. Factor 3: Investment in the Parallel Proceeding

Petitioner contends that the third *Fintiv* factor favors institution because the parallel district court proceeding is in its very early stages and the investment in it has been minimal. *See* Pet. 76. Petitioner also asserts that it filed preliminary invalidity contentions on February 2, 2023 and that the claim construction hearing is not scheduled until September 7, 2023. *See id.*

Patent Owner asserts that the third *Fintiv* factor favors denial of institution because significant work in the parallel district court proceeding has already taken place, noting that the parties have produced over 2.4 million pages of discovery and, that infringement and invalidity contentions have been served and supplemented several times. *See* Prelim. Resp. 30 (citing Exs. 2002, 2003, 2007, 2011, 2012, 2014, 2015–2020). Patent Owner contends that by the time of institution, discovery will be nearly complete, and the Markman hearing is scheduled for September 7, 2023. *See id.* at 30–31 (citing Ex. 2001, 3–4).

² Patent Owner mistakenly lists September 13 instead of September 26.

After consideration of the substantial investment in the parallel district court proceeding by the parties and district court, we determine that the considerations of the third *Fintiv* factor weigh in favor of discretionary denial.

D. Factor 4: Overlap Between the Issues Raised in the Petition and in the Parallel Proceeding

Patent Owner contends that the fourth *Fintiv* factor weighs in favor of denying institution because each claim at issue in the parallel district court proceeding is at issue in the Petition, and same references (Lin, Shieh, and Swenson) are identified in Petitioner's invalidity contentions. Prelim.

Resp. 32.

The Petition includes the following stipulation:

if the Board institutes trial, Petitioner will cease asserting in the parallel litigation the combination of references on which trial is instituted for the claims on which trial is instituted.

Pet. 77.

Patent Owner correctly contends that this stipulation is a *Sand Revolution* – style stipulation, which the Board has routinely found to weigh only marginally in favor of not exercising discretion to deny institution. Prelim. Resp. 33 (case citations omitted). Accordingly, we determine the considerations of the fourth *Fintiv* factor weigh only marginally against discretionary denial. *See Sand Revolution II LLC v. Continental Intermodal Group–Trucking LLC*, IPR2019 01393, Paper 24 at 12 (PTAB June 16, 2020) (informative)).

E. Factor 5: Whether Petitioner and Defendant are the Same Party

There is no dispute that Petitioner and the defendant in the parallel district court proceeding are the same. Pet. 77; Prelim. Resp. 35. Thus, we determine that the fifth *Fintiv* factor weighs in favor of discretionary denial.

F. Factor 6: Other Circumstances, Including the Merits

In view of the above, we determine that the first five *Fintiv* factors favor discretionary denial. Thus, under the sixth factor we must consider whether the Petition presents compelling merits. *CommScope*, 4–5.

Neither party addresses the compelling merits standard in any detail. Petitioner asserts that “the analysis in Grounds 1-2 provides a compelling unpatentability challenge.” Pet. 77. Patent Owner argues that the grounds are not compelling because they do not show how the combination of prior art teaches all of the elements of the claims. Prelim. Resp. 35–36.

We agree with Petitioner that the Petition presents compelling merits at least as to unpatentability of claim 1 over Lin and Swenson. As part of our analysis below in Section III.D, we discuss the merits of the Petition under the standard required for institution and then discuss our conclusion that the merits are compelling.

G. Conclusion

Under the Director’s guidance, we cannot “discretionarily deny institution in view of parallel district court litigation where a petition presents compelling evidence of unpatentability.” *Fintiv* Memo 2. Because that is the case here, as explained below in Section III.D.4, we determine that we should not exercise discretion to deny institution in this proceeding under 35 U.S.C. § 314(a).

III. ANALYSIS

A. Legal Standards

Petitioner bears the burden to demonstrate unpatentability. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). At this preliminary stage, we determine whether the information

presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing that at least one of the challenged claims would have been obvious over the proposed combinations of prior art. *See* 35 U.S.C. § 314(a).

A claim is unpatentable as obvious if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). We resolve the question of obviousness based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the prior art and the claims; (3) the level of skill in the art; and (4) when in evidence, objective indicia of nonobviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We apply these principles to the Petition’s challenges.

B. Level of Ordinary Skill in the Art

We review the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time of the invention. *Id.* at 13, 17. Petitioner asserts that a person of ordinary skill in the art (POSA)

would have had a bachelor’s degree in computer science, computer engineering, or an equivalent, and two years of professional experience, and a POSA would have had a working knowledge of hardware and software for packet-switched networking. EX1004, ¶¶48-49. Lack of work experience can be remedied by additional education and vice versa. *Id.*, ¶48.

Pet. 5.

“Patent Owner does not dispute Petitioner’s definition, except noting that other majors, such as electrical engineering and other similar majors could be equivalent to computer science or computer engineering.” Prelim. Resp. 14.

We are persuaded, on the present record, that Petitioner’s proposal is consistent with the problems and solutions in the ’111 patent and prior art of record. We adopt Petitioner’s definition of the level of skill for the purposes of this Decision.

C. Claim Construction

In *inter partes* review, we construe claims using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2022).

Petitioner provides constructions of “controller” and “instruction.” Pet. 5–8. Patent Owner “takes no positions regarding these constructions,” and does not offer any other constructions. Prelim. Resp. 13.

We determine that no terms need to be construed at this time. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. 35 U.S.C. § 103 – Lin and Swenson

Petitioner argues that the combination of Lin and Swenson renders obvious the subject matter of claims 1–9, 12–24, and 27–31. Pet. 13–54. Patent Owner argues Petitioner has not demonstrated a reasonable likelihood

of success in showing that at least claim 1 is unpatentable. Prelim.
Resp. 14–17.

For the reasons expressed below, we determine that Petitioner has established a reasonable likelihood of succeeding in showing that at least claim 1 is unpatentable over the combination of Lin and Swenson.

In the below analysis, we first review the cited prior art of Lin and Swenson, and then address the parties’ arguments with respect to the claims.

1. Lin

Lin is titled “Software Defined Networking Pipe for Network Traffic Inspection.” Ex. 1005, code (54). Lin teaches an “SDN controller inserts flow rules in a flow table of [an] SDN switch to create an SDN pipe between a sender component and a security component.” *Id.* at 1:60–62. “The SDN pipe allows outgoing packets sent by the sender component to be received by the security component” for inspection. *Id.* at 1:64–2:2. Further the SDN controller includes a flow policy database with flow policies that are enforced by the controller on network traffic transmitted over the SDN computer network. *Id.* at 4:12–16.

2. Swenson

Swenson discloses a system and method for “selectively monitoring traffic in a service provider network.” Ex. 1007, Abstr. Swenson teaches “[t]he network 120 is a communication network that transmits data between the user devices 110, the steering devices 130 and the origin server 160 and/or the video optimizer 150.” *Id.* ¶ 23. In one embodiment, “the network controller 140 interfaces with the steering device 130 to coordinate the monitoring and characterization of network traffic.” *Id.* ¶ 26. “[T]he steering device 130 receives instructions from the network controller 140 based on

the desired criteria for characterizing flows of interest for further inspection.” *Id.*

3. *Claim 1*

Petitioner argues that independent claim 1 is taught by the combination of Lin and Swenson. Pet. 13–33.

The preamble of claim 1 defines the physical components of claim 1, namely “a packet network including a network node for transporting packets between first and second entities under control of a controller that is external to the network node.” Ex. 1001, 10:52–55. We determine that Petitioner has shown by a reasonable basis that both Lin and Swenson disclose the physical components of claim 1. Pet. 13–23. For example, Petitioner identifies Lin as teaching a software defined network that transmits packets over the network with the use of an SDN controller (610) and an SDN switch (620) (i.e., the network node), where the packets pass between two entities (sender 622 and Next hop). *Id.* at 13–17 (citing e.g., Ex. 1005, 1:7–9, 4:8–31, 4:33–67, Figs. 1, 6; Ex. 1004 ¶¶ 75–78); *see also id.* at 20–22 (discussing similar teachings in Swenson). Petitioner further argues that Lin and Swenson have “substantially similar . . . architecture” and function in similar ways. *Id.* at 19–22.

The first method step of claim 1 requires “sending, by the controller to the network node over the packet network, an instruction and a packet-applicable criterion.” Ex. 1001, 10:56–58. Concerning this limitation, Patent Owner argues that that “[t]he Petition . . . fails to explain how Lin’s SDN controller 610 and SDN switch 620 are discrete elements on a packet network such that controller 610 sends the instruction and criterion to switch 620 *over the packet network* as claimed.” Prelim. Resp. 15. In making this argument, Patent Owner cites to page 25 of the Petition which states: “Lin

explains that a controller (i.e., the SDN controller) controls network nodes (i.e., the SDN switches) in a packet network for the reasons stated above for Element [1.0].” Pet. 25. Patent Owner does not address the discussion of the packet network in the prior section (e.g., Pet. 13–17 (discussing Lin) and 20–25 (discussing Lin in combination with Swenson)). Thus, Patent Owner’s argument amounts to an assertion that does not address the positions outlined in the Petition.

The Petition identifies that Lin teaches that in its system, “[t]he SDN controller 610 and the SDN switch 620 are logically separate components.” Pet. 17 (quoting Ex. 1005, 3:51–52). The Petition identifies that Lin teaches the “transmission of packets over the SDN computer network 600.” *Id.* at 14 (quoting Ex. 1005, 4:19–21). And the Petition provides evidence that one of skill in the art “would have known that [Lin’s] computer network is a packet network.” *Id.* (citing Ex. 1004 ¶¶ 75–76). The Petition further specifies how the controller provides instructions and criterion to the switch (*id.* at 25–27), which are separate components connected over the network (*id.* at 14, 17). In view of these arguments and evidence, we determine that the Petition provides a reasonable basis to find that the prior art teaches a packet network where the controller sends the instruction and criterion to a network node *over the packet network* as claimed.

Patent Owner does not otherwise contest Petitioner’s arguments that independent claim 1 is taught by the combination of Lin and Swenson.

We also determine that Petitioner has shown by a reasonable basis that the combination of Lin and Swenson discloses the remaining method steps of claim 1. *See* Pet. 25–33 (citing e.g., Ex. 1005, 1:58–2:4, 4:14–31, 4:33–67, 7:24–8:18, Figs. 6–9; Ex 1004 ¶¶ 88–114). For example, for the first “receiving” step, the Petition relies on the same teachings of Lin

discussed above with respect to the “sending” step. *Id.* at 27–28. Concerning the second “receiving” step, the Petition discusses how both Lin and Swenson receive packets in accordance with the claim language. *Id.* at 28–29; *see also id.* at 14–24 (discussing Lin and Swenson with respect to similar language in the preamble, addressed above). Finally, concerning the “checking” and two “responsive” steps, the Petition identifies how Lin teaches that the SDN switch implements flow rules which check if the rules are met and then “responsive” to the answer, controls the flow of packets accordingly. *Id.* at 29–33.

We have reviewed the Petition and supporting evidence and determine that the Petition demonstrates a reasonable likelihood that Petitioner would prevail in showing claim 1 unpatentable over the combination of Lin and Swenson.

4. *Compelling Merits*

Having determined that Petitioner is likely to succeed in its challenge to claim 1, and that the first five *Fintiv* factors favor discretionary denial, we now consider whether the Petition presents compelling merits. *CommScope*, 4–5.

“Compelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Fintiv* Memo, 4. We determine that Petitioner’s challenge as to claim 1 based on Lin and Swenson meets this standard. As set forth in the previous section, Petitioner demonstrates that at this stage all elements of claim 1 are disclosed, taught, or suggested by the combination of Lin and Swenson. If unrebutted at trial, we would conclude by a preponderance of the evidence

that at least claim 1 is unpatentable over the combination of Lin and Swenson.

Petitioner relies on various portions of Lin and Swenson for disclosing, teaching, or suggesting the limitations of claim 1. *See* Pet. 13–33; *see also infra* § III.D.3 (detailing Petitioner’s arguments). At this stage, Patent Owner has not produced persuasive rebuttal evidence. For most of the claim limitations, Patent Owner provides no rebuttal to Petitioner’s analysis. Patent Owner’s arguments addressed above do not even address the full arguments made in the Petition. Further, most, if not all, of the positions set forth in the Petition for claim 1 are based on the explicit teachings in the prior art. In short, we determine that, on this preliminary record, Petitioner’s challenge to claim 1 meets the “compelling merits” standard as set forth in the *Fintiv* Memo.

5. *Claims 2–9, 12–24, 27–31*

Claims 2–9, 12–24, and 27–31 all depend from claim 1. The Petition provides argument and supporting evidence to support its position that these claims are also unpatentable over the combination of Lin and Swenson. Pet. 33–54. Patent Owner does not separately address these claims. *See generally*, Prelim. Resp.

We have reviewed the Petition and supporting evidence and determine that the Petition demonstrates a reasonable likelihood that Petitioner would prevail in showing these claims unpatentable over the combination of Lin and Swenson.

E. 35 U.S.C. § 103 – Shieh and Swenson

Petitioner argues that the combination of Shieh and Swenson renders obvious the subject matter of claims 1, 5–9, 12–24, and 27–30. Pet. 54–73.

Patent Owner argues Petitioner has not demonstrated a reasonable likelihood of success showing that at least claim 1 is unpatentable. Prelim. Resp 17–23.

For the reasons expressed below, we determine that Petitioner has not established a reasonable likelihood of succeeding in showing that at least claim 1 is unpatentable over the combination of Shieh and Swenson.

In the below analysis, we first review Shieh, and then address the parties’ arguments with respect to the claims.

1. Shieh

Shieh is titled “Cooperative Network Security Inspection.” Ex. 1006, code (54). Shieh relates to a network security system where a network access device inspects a packet received from a source node which is destined to a destination node. *Id.* at Abstr. If the network access device determines the packet needs to “undergo security processing” it “is transmitted to a security device . . . to perform content inspection.” *Id.* Alternatively, “[t]he packet is routed to the destination node without forwarding . . . to the security device.” *Id.*

2. Claim 1

Petitioner argues that independent claim 1 is taught by the combination of Shieh and Swenson. Pet. 54–66. Similar to the ground based on Lin and Swenson, Petitioner argues that Shieh and Swenson have similar architecture and function in similar ways. *Id.* at 55–62.

Concerning the “packet-applicable criterion,” which is relevant to almost all of the method steps, the Petition relies on Shieh for “disclos[ing] separate packet-applicable criterion to determine which packets should be forwarded to the security device pursuant to the filtering rules.” *Id.* at 62 (citing Ex. 1004 ¶ 224). The Petition then states that specific examples in Shieh include the identification of “TCP FIN or TCP RST packets” and that

“These correspond to the claimed packet-applicable criterion.” *Id.* at 63 (citing Ex. 1006³ ¶¶ 35, 36, 49) (emphasis omitted).

Petitioner’s position concerning the “packet-applicable criterion” is unclear. For example, it is unclear how identification of “TCP FIN or TCP RST packets” corresponds to the teachings surrounding filtering rules in Shieh. Further, Shieh does not appear to teach what happens to a packet in a special event such as a TCP FIN or TCP RST packet is identified. *See* Ex. 1006 ¶ 36. As discussed by Patent Owner, “Shieh discloses that packet destinations are determined by the bypass flag—which is separate from the TCP FIN or TCP RST packet.” Prelim. Resp. 19 (citing Ex. 1006 ¶¶ 36–37); *see also id.* at 19–21. The Petition asserts that they are related, but does not explain how. *See e.g.*, Pet. 62–63, 65.

As the Petition relies on identification of TCP FIN and TCP RST packets in Shieh for the “packet-applicable criterion,” we cannot say that Petitioner at this time has provided a reasonable basis for us to determine that claim 1 is unpatentable over the combination of Shieh and Swenson.

3. Claims 5–9, 12–24, 27–30

Claims 5–9, 12–24, and 27–30 all depend from claim 1. Thus, the Petition does not provide a reasonable basis for us to determine that these claims are unpatentable over Shieh and Swenson for the same reasons as claim 1.

³ The citation in the Petition uses “*id.*” in error, pointing to Ex. 1004 instead of listing Ex. 1006.

IV. CONCLUSION

For the foregoing reasons, we have determined that there is a reasonable likelihood that the Petitioner would prevail with respect to at least one claim challenged in the Petition. We, therefore, institute trial as to all challenged claims on all grounds stated in the Petition.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, *inter partes* review as to claims 1–9, 12–24, and 27–31 of U.S. Patent 10,652,111 B2 is instituted; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this decision.

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