

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JUNIPER NETWORKS, INC.,
Petitioner,

v.

CORRECT TRANSMISSION, LLC,
Patent Owner.

IPR2021-00571
Patent 7,127,523 B2

Before BRYAN F. MOORE, JOHN R. KENNY, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Case Posture

Juniper Networks, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–6 and 10–15 (“Challenged Claims”) of U.S. Patent No. 7,127,523 B2 (Ex. 1001, “the ’523 patent”). Petitioner identifies itself as a real party in interest. Pet. ix. Correct Transmission, LLC (“Patent Owner”) identifies itself as a real party in interest (Paper 4, 1), and timely filed a Preliminary Response to the Petition (Paper 6, “Prelim. Resp.”). In addition, with prior authorization from the Board, the parties filed supplemental briefing concerning the Preliminary Response. Paper 8 (“Reply”); Paper 9 (“Sur-Reply”).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b) (2018); 37 C.F.R. § 42.4(a) (2020). We may not institute an *inter partes* review “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

Applying those standards, and upon consideration of the information presented in the Petition, Preliminary Response, and supplemental briefing, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to any of challenged claims 1–6 and 10–15 of the ’523 patent. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Accordingly, constrained by the record before us, we deny institution of an *inter partes* review of the ’523 patent.

B. Related Proceedings

The parties indicate that the '523 patent is involved in two U.S. district court actions, namely, *Correct Transmission, LLC v. Juniper Networks, Inc.*, No. 6:20-cv-670 (W.D. Tex.); and *Correct Transmission, LLC v. Adtran, Inc.*, No. 6:20-cv-669 (W.D. Tex.). Pet. ix; Paper 4, 1.

Patent Owner also indicates that the following matters may affect, or be affected by, a decision in this case: *Juniper Networks, Inc. v. Correct Transmission, LLC*, IPR2021-00469 (PTAB); and *Juniper Networks, Inc. v. Correct Transmission, LLC*, IPR2021-00682 (PTAB). Paper 4, 1; see Pet. ix (Petitioner indicating that it filed a petition for *inter partes* review of U.S. Patent No. 7,983,150 (IPR2021-00469)).

C. The '523 Patent

The '523 patent is titled "Spanning Tree Protocol Traffic in a Transparent LAN," and issued on October 24, 2006, from U.S. Patent Application No. 10/057,332, filed January 25, 2002. Ex. 1001, codes (10), (21), (22), (45), (54). The '523 patent claims priority to U.S. Provisional Patent Application No. 60/308,410, filed July 27, 2001. *Id.* at code (60).

The '523 patent generally relates to "methods and systems for enabling spanning tree protocol traffic over a network using label switching." Ex. 1001, 1:13–16. The '523 patent summarizes the invention as follows:

[A] spanning tree protocol (STP) is implemented in a TLS [i.e., "transparent LAN service"] network by sending STP signaling along the data paths through the MPLS [i.e., "multi-protocol label switching"] tunnels making up the network. In other words, STP frames are sent through the same tunnels as the user traffic, but are distinguished from the user data frames by a special STP label. Loop removal is carried out in this way for each one of the

TLSs, so that each TLS has its own loop-free topology. Using this method, the TLS network operator is able to ensure that there are no loops in the core network, irrespective of loops that users may add when they connect their own equipment to the network.

Id. at 5:65–6:9; *see id.* at 3:42–45 (MPLS), 4:23–25 (TLS).

Figure 1 of the '523 patent is reproduced below.

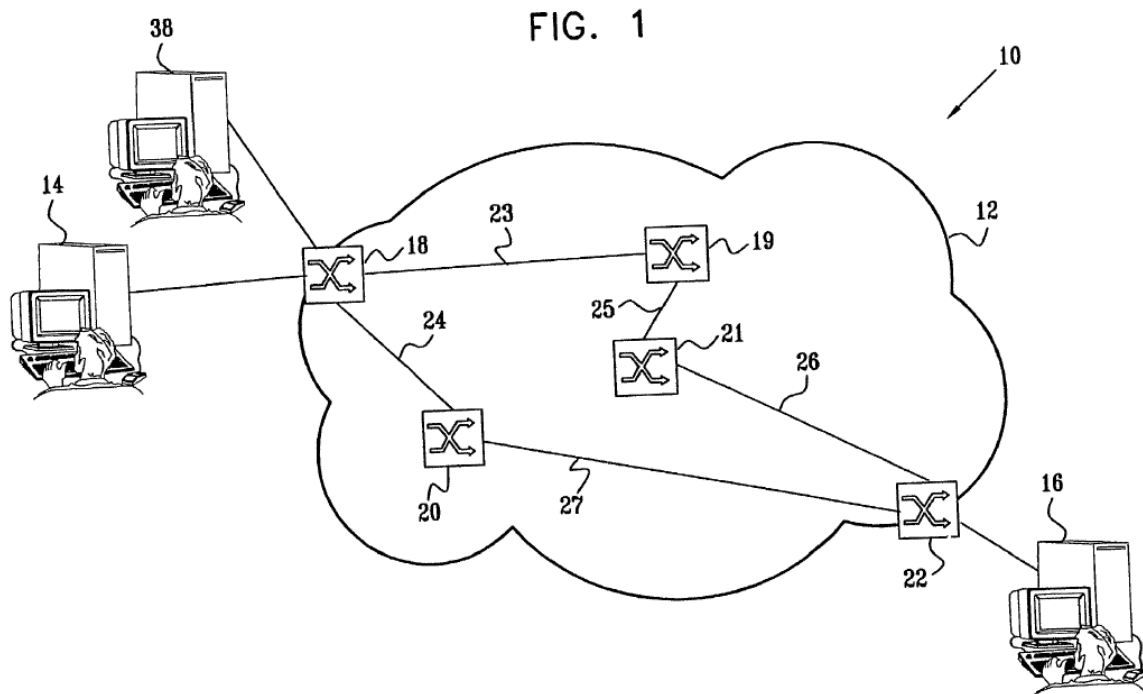


Figure 1 is a block diagram depicting a multi-protocol label switching (MPLS) system configured for transparent LAN service (TLS).

Ex. 1001, 7:52–55, Fig. 1. As shown in Figure 1 above, multi-protocol label switching (“MPLS”) system 10 includes point-to-point transparent LAN service (“TLS”) network 12 connecting between first user 14 and second user 16. *Id.* at 8:16–23. Users 14 and 16 are connected by label switching routers (LSRs) 18, 19, 20, 21, and 22 across label switching paths (“LSPs”) 23, 24, 25, 26 and 27. *Id.* at 8:23–26. Labeled packets originating from user 14 and destined for user 16 cross a set of the LSPs. *Id.* at 8:26–28.

According to the '523 patent, MPLS system 10 transmits “encapsulated configuration bridge protocol data units (BPDU),” which prevent “loops” in TLS network 12. *Id.* at 5:62–64, 8:16–20.

Figure 3 of the '523 patent is reproduced below.

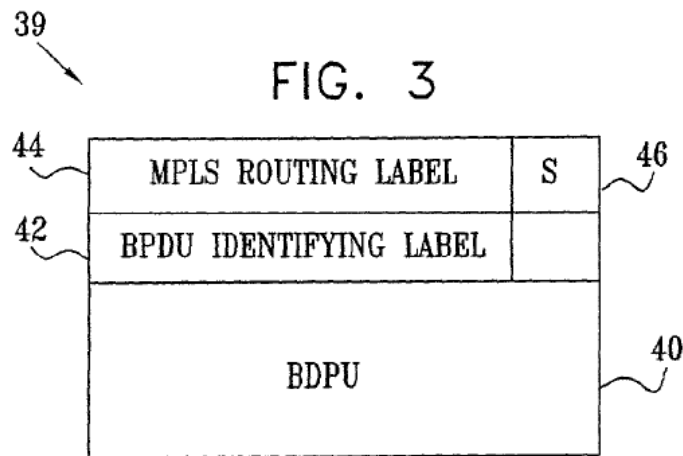


Figure 3 is a schematic diagram depicting encapsulation of a configuration bridge protocol data unit (BPDU) used in a spanning tree protocol (STP).

Ex. 1001, 7:60–62, Fig. 3. As shown in figure 3 above, MPLS frame 39 encapsulates configuration BPDU 40 used in STP with MPLS routing labels pushed onto a label stack above BPDU 40. *Id.* at 8:58–62. “The first label is a specialized BPDU identifying label 42, comprising an agreed upon value signifying that the underlying data is a BPDU. This label will enable LSRs in system 10 to identify frame 39 as a STP frame, rather than a normal data frame.” *Id.* at 8:63–67. “A further MPLS destination label 44 is pushed onto the label stack at each LSR, in accordance with conventional MPLS routing procedures. This is the same label as is used for user data frames carried between users of TLS network 12.” *Id.* at 8:67–9:4. “A stack flag bit 46 is set in destination label 44 to indicate that the receiving LSR should pop the next level label off the label stack and examine it, in order to

discover the BPDU identifying label and perform the required STP processing.” *Id.* at 9:4–8.

According to the ’523 patent, “[a]lthough the method of encapsulating BPDU 40 in frame 39 [with BPDU identifying label 42] . . . is novel, both [pushing MPLS routing label 44 with label stacking bit 46 onto BPDU frame 40 and sending BPDU frame 40 to a destination] . . . are part of normal MPLS processing, as is known in the art.” Ex. 1001, 9:20–23, Figs. 3, 4A.

D. Illustrative Claim

The ’523 patent includes 19 claims, of which claims 1–6 and 10–15 are challenged. Claims 1 and 10 are the challenged independent claims. Claim 1 is illustrative and reproduced below.

1. A method for communication, comprising:
defining a topology of a transparent local area network service (TLS), comprising a system of label-switched tunnels between label-switched routers (LSRs) through a communication network, the TLS having at least first and second endpoints to which first and second user equipment is connected so that the TLS acts as a virtual bridge between the first and second user equipment;
transmitting control frames among the LSRs in the TLS via the label-switched tunnels, each control frame comprising a control traffic label and a bridge protocol data unit (BPDU) in accordance with a spanning tree protocol (STP), the control traffic label indicating to the LSRs that the STP is to be executed by the LSRs without transmission of the BPDU to the user equipment; and
upon receiving the control frames at the LSRs, processing the BPDU, responsively to the control traffic label, so as to remove loops in the topology of the TLS irrespective of the user equipment.

Ex. 1001, 10:55–11:7.

E. Applied References

Petitioner relies upon the following references:

Fine et al., U.S. Patent No. 6,188,694 B1 (Ex. 1005, “Fine”), filed December 23, 1997, issued February 13, 2001.

Rekhter et al., U.S. Patent No. 6,339,595 B1 (Ex. 1006, “Rekhter”), filed December 23, 1997, issued January 15, 2002.

E. Rosen and Y. Rekhter, “BGP / MPLS VPNs” – Network Working Group – Request for Comments: 2547 (March 1999) (Ex. 1007, “RFC-2547”). Petitioner submits RFC-2547 was “published no later than March 1999,” citing, *inter alia*, the Declaration of Sandy Ginoza. Pet. 2 (citing Ex. 1034 ¶¶ 6–10, 14).

Pet. 2–3.

F. Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–6 and 10–15 of the ’523 patent based on the following grounds.

Claims Challenged	35 U.S.C. §	Reference(s)
1–6, 10–15	103(a) ¹	Fine, Rekhter
1–6, 10–15	103(a)	Fine, RFC-2547

Pet. 2. Petitioner relies upon the Declaration of Yaling Yang, Ph.D. (Ex. 1003).

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the ’523 patent was filed before March 16, 2013, the effective date of the relevant amendment, the pre-AIA version of § 103 applies.

II. ANALYSIS

A. Applicable Law

Petitioner challenges the patentability of claims 1–6 and 10–15 of the ’523 patent on grounds that the claims would have been obvious under 35 U.S.C. § 103 in light of various references including: Fine, Rekhter, and RFC-2547. “In an [*inter partes* review], the petitioner has the burden from the onset to show *with particularity* why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)) (emphasis added). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review).

A claim is unpatentable under 35 U.S.C. § 103 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). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when of record, objective evidence of obviousness or non-obviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Secondary considerations may

include the following: “commercial success, long felt but unsolved needs, failure of others, etc.”² *Id.* The totality of the evidence submitted may show that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984).

When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art, at the time of the effective filing date of the ’523 patent:

would have had a bachelor’s degree in electrical engineering, computer engineering, computer science, or a closely related field, and one to two years of experience in the design and development of network communication systems. Alternatively, a POSITA would have a Master’s degree or similar post-graduate work in electrical engineering, computer engineering, computer science, or a closely related field, and less years of design and development experience.

Pet. 11 (citing Ex. 1003 ¶¶ 75–79). Patent Owner does not present an alternative definition at this stage of the proceeding. Prelim. Resp. 34.

We regard Petitioner’s proposed definition as reasonable, and consistent with the prior art before us. *See In re GPAC Inc.*, 57 F.3d 1573,

² At this stage of the proceeding, Patent Owner has not presented objective evidence of non-obviousness.

1579 (Fed. Cir. 1995) (determining that the Board of Patent Appeals and Interferences did not err in concluding that the level of ordinary skill in the art was best determined by the references of record). Accordingly, we apply the level of skill set forth above, which also is consistent with the testimony of Dr. Yang (Ex. 1003 ¶¶ 75–79).

C. Claim Construction

Neither Petitioner nor Patent Owner proposes any claim terms for construction. Pet. 12 (“Juniper construes each of the ’523 claim terms as having its ordinary and customer meaning.”); Prelim. Resp. 10 (“Patent Owner does not propose any claim term departs from its ordinary and customary meaning.”). We do not find that the express construction of any term is necessary for this decision. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review).

D. Obviousness of Claims 1–6 and 10–15 over the Combination of Fine and Rekhter (Ground 1)

Petitioner contends claims 1–6 and 10–15 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Fine (Ex. 1005) and Rekhter (Ex. 1006). Pet. 13–55. Patent Owner opposes Petitioner’s contentions. Prelim. Resp. 1–3, 34–51. Based on our review of the Petition and Preliminary Response, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing that

claims 1–6 and 10–15 are unpatentable as obvious over the combination of Fine and Rekhter, as discussed below. We begin with an overview of Fine.

1. Overview of Fine

Fine generally relates to “a shared spanning tree protocol for defining a plurality of loop-free paths within a computer network.” Ex. 1005, 1:5–8.

Fine discloses:

A shared spanning tree protocol (SSTP) creates a plurality of spanning trees (i.e., loop-free paths) which are shared among one or more virtual local area network (VLAN) designations for data transmission within a computer network. Each shared spanning tree includes and is defined by a primary VLAN and may be associated with one or more secondary VLANs. In order to associate VLAN designation(s) with a single shared spanning tree, network devices exchange novel shared spanning tree protocol data units (SST-PDUs). Each SST-PDU corresponds to a given primary VLAN and preferably includes one or more fields which list the secondary VLAN designations associated with the given primary VLAN. The association of VLAN designations to shared spanning trees, moreover, preferably depends on which path traffic is to follow as well as the anticipated load characteristics of the various VLANs. The association of VLAN designations to shared spanning trees thus provides a degree of load balancing within the network. Data messages tagged with a particular VLAN designation are then distributed by the devices only along the shared spanning tree to which that VLAN has been associated by SSTP.

Id., Abstract.

Figure 3B of Fine is reproduced below.

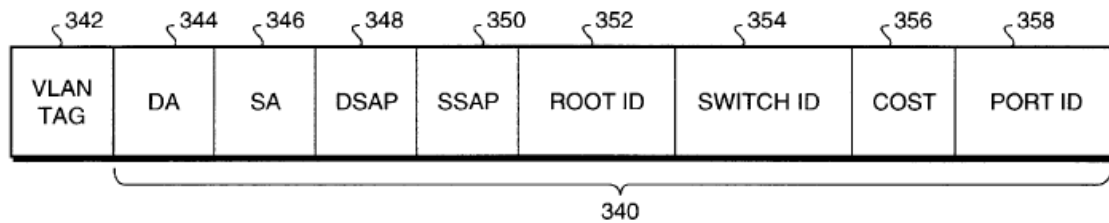


FIG. 3B

Figure 3B is a block diagram of a tagged bridge protocol data unit (BPDU).

Ex. 1005, 5:60–61. As shown in Figure 3B above, Fine’s bridge protocol data unit (BPDU) 340 includes VLAN tag field 342 to form a tagged BPDU. *Id.* at 10:6–9. BPDU 340 also includes, among other fields, destination and source MAC (“Media Access Control”) address fields 344, 346. *Id.* at 10:9–18, 8:55. Fine discloses that VLAN tag field 342 identifies a primary VLAN designation, which is used to direct the tagged BPDU through each port of a switch associated with that VLAN designation. *Id.* at 11:39–54.

2. *Independent Claims 1 and 10: “the control traffic label indicating to the LSRs that the STP is to be executed by the LSRs without transmission of the BPDU to the user equipment”*

The parties dispute, *inter alia*, whether Petitioner’s cited evidence adequately supports Petitioner’s contention that Fine discloses “the control traffic label indicating to the LSRs that the STP is to be executed by the LSRs without transmission of the BPDU to the user equipment,” as recited in both challenged independent claims 1 and 10. *See, e.g.*, Prelim. Resp. 41–48; Pet. 33–35, 44; Ex. 1001, 10:67–11:3, 11:62–65.

Petitioner contends “Fine *explains* its LSRs execute the tagged BPDU and *this BPDU isn’t transmitted to the user equipment,*” but Petitioner does not cite any evidentiary support for this statement, let alone direct us with particularity to where this is *explained* in Fine. Pet. 33 (emphases added); *see* Pet. 33–34.³ Petitioner then contends, again without citing any evidentiary support, “[b]ecause [Fine’s] switches 118, 121 will have executed spanning tree protocol calculations based on the tagged BPDUs, *[the skilled artisan] would have understood that Fine’s tagged BPDUs don’t reach the entities of the LANs 102, 109.*” Pet. 34 (emphasis added); *see* Pet. 35. Petitioner further contends “the entities of LANs 102, 109 don’t execute spanning tree protocol calculations or consider this information, so *[the skilled artisan] would have appreciated Fine’s switches don’t transmit this information to entities of LANs 102, 109.*” Pet. 34; *see* Pet. 34–35.

Patent Owner argues “Petitioner fails to address how or why Fine’s purported ‘control traffic label,’ which Petitioner discloses as the VLAN Tag Field, performs the required limitation of ‘indicating to the LSRs that the STP is to be executed by the LSRs without transmission of the BPDU to the user equipment.’” Prelim. Resp. 47. Patent Owner argues “Petitioner states Fine’s ‘VLAN tag field 342 in combination with [the] special multicast address in the destination address field 344 to be a disclosure of the claimed “control traffic label,”’ but “Petitioner fails to even mention this VLAN Tag Field or Destination Address Field in the portion of the Petition dedicated to ‘a *control traffic label indicating* to the LSRs.’” *Id.* at 47–48 (citations

³ For each quote in this paragraph, Dr. Yang makes a similar statement, but Dr. Yang’s declaration also does not cite any evidentiary support for those statements. Ex. 1003 ¶ 135.

omitted). Patent Owner argues “Petitioner does not even mention the term ‘indicating’ or its equivalent, not to mention any purported control traffic label,” and “[a]s a result, Petitioner has failed to meet its burden for this limitation under 37 C.F.R. § 42.104(b)(4).” *Id.* at 48. We are persuaded by Patent Owner’s argument.

Notably, although Petitioner understands that the Examiner allowed the Challenged Claims based on this “indicating” limitation (Pet. 33), Petitioner fails to direct us *with particularity* to any disclosure or teaching in Fine of a “control traffic label” itself “indicating” to LSRs that the STP is to be executed by the LSRs without transmission of the BPDU to the user equipment. *See* Pet. 33–35. As argued by Patent Owner (Prelim. Resp. 47–48), Petitioner does not explain with particularity how or why Fine’s VLAN Tag field 304 or Destination Address field 306 (or both) indicates to LSRs that the STP is to be executed by the LSRs without transmission of the BPDU to user equipment (or teaches such “indicating”). Instead, Petitioner merely leaps from arguing that Fine teaches that tagged BPDUs do not reach user equipment (Pet. 34), to averring that this constitutes or teaches the claimed “indicating” limitation, without providing particular support and explanation for such a leap. *See* Pet. 33–35; 35 U.S.C. § 312(a)(3) (The *petition* must identify supporting evidence “with particularity.” (emphasis added)); 37 C.F.R. § 42.104(b)(4) (“The *petition* must specify where each element of the claim is found in the prior art” (emphasis added)).

For the foregoing reasons, and constrained by the Petition, we are not persuaded that the cited evidence adequately supports Petitioner’s contention that Fine discloses “the control traffic label indicating to the LSRs that the

STP is to be executed by the LSRs without transmission of the BPDU to the user equipment,” as recited in independent claims 1 and 10.

3. *Summary*

For the foregoing reasons, we determine that Petitioner has not demonstrated a reasonable likelihood of success in establishing the unpatentability of any of independent claims 1 and 10, and claims 2–6 and 11–15, which depend therefrom, as obvious over the combination of Fine and Rekhter.

E. Obviousness of Claims 1–6 and 10–15 over the Combination of Fine and RFC-2547 (Ground 2)

Petitioner contends claims 1–6 and 10–15 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Fine (Ex. 1005) and RFC-2547 (Ex. 1007). Pet. 55–74. Patent Owner opposes Petitioner’s contentions. Prelim. Resp. 1–3, 34–51.

Petitioner again relies solely on Fine for allegedly teaching “the control traffic label indicating to the LSRs that the STP is to be executed by the LSRs without transmission of the BPDU to the user equipment,” as recited in both challenged independent claims 1 and 10. *See* Pet. 66 (“As discussed with respect to claim element 1.4 in Ground 1 [i.e., the “indicating” limitation], Fine discloses this claim element”), 68. Petitioner does not offer any additional arguments under this ground directed to the deficiencies noted above regarding Fine (*see* Section II.D.2, *supra*). *See generally* Pet.

Accordingly, for the reasons set forth above in Section II.D, we determine that Petitioner has not demonstrated a reasonable likelihood of success in establishing the unpatentability of any of independent claims 1

and 10, and claims 2–6 and 11–15, which depend therefrom, as obvious over the combination of Fine and RFC-2547.

F. Discretionary Denial Under 35 U.S.C. §§ 314(a) and 325(d)

Because we deny institution upon consideration of the merits of Petitioner’s challenges, Patent Owner’s arguments that we should exercise our discretion under 35 U.S.C. §§ 314(a) and 325(d) to deny institution are moot.

III. CONCLUSION

Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to any of claims 1–6 and 10–15 of the ’523 patent under either of proffered Grounds 1 and 2.

IV. ORDER

For the reasons given, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is not instituted for claims 1–6 and 10–15 of U.S. Patent No. 7,127,523 B2.

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Patent 7,127,523 B2

For PETITIONER:

Joseph Edell
Kyle Tsui
FISCH SIGLER LLP
joe.edell.IPR@fischllp.com
kyle.tsui@fischllp.com

For PATENT OWNER:

Bradley Liddle
Seth Lindner
Scott Breedlove
CARTER ARNETT PLLC
bliddle@carterarnett.com
sbreedlove@carterarnett.com
slindner@carterarnett.com