

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner,

v.

CORRIGENT CORPORATION,
Patent Owner.

Case IPR2023-00447

Patent 9,118,602

PATENT OWNER SUR-REPLY

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Raz Does Not Render the Claims Obvious for Ground 1	2
A.	Raz Does Not Teach or Render Obvious a “LAG”	2
1.	Petitioner’s New Arguments Fail	2
2.	Petitioner Fails to Rebut the POR’s Arguments	7
B.	Raz Does Not Teach or Render Obvious Sending a Packet Between MPLS/LAG Switches Via a Single Physical Tunnel Port Assigned and Encoded in a Label by the First MPLS/LAG Switch.....	8
C.	A POSA Would Not and Could Not Have Implemented Raz’s Teachings of Internal Subports Between Two MPLS/LAG Switches.....	14
D.	The Petition Fails to Establish Motivation to Modify Raz	18
E.	The Petition Fails to Establish a Reasonable Expectation of Success	21
F.	Raz Does Not Teach or Render Obvious Independent Claim 15	22
III.	Raz and Ferguson Do Not Render the Claims Obvious for Ground 2...23	
A.	Raz Would Not Have Been Modified In View of Ferguson’s Disclosures	23
B.	The Petition Fails to Establish a Reasonable Expectation of Success.....	25
C.	Ground 2 Fails Even If Raz Is Modified Based on Ferguson	25
IV.	Conclusion	26

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012)	25
<i>Ariosa Diagnostics v. Verinata Health, Inc.</i> , 805 F.3d 1359 (Fed. Cir. 2015)	4
<i>Cutsforth, Inc. v. MotivePower, Inc.</i> , 636 Fed. App'x 575 (Fed. Cir. 2016)	5
<i>DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.</i> , 567 F.3d 1314 (Fed. Cir. 2009)	14
<i>FanDuel, Inc. v. Interactive Games LLC</i> , 966 F.3d 1334 (Fed. Cir. 2020)	5
<i>In re Gal</i> , 980 F.2d 717 (Fed. Cir. 1992)	5
<i>Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.</i> , 821 F.3d 1359 (Fed. Cir. 2016)	4
<i>Ex parte Maeda</i> , Appeal No. 2010-009814, Decision on Appeal (PTAB Oct. 23, 2012)	5
<i>Netflix, Inc. v. Avago Technologies International Sales Pte. Ltd.</i> , IPR2021-00542, Paper 34 (PTAB Sept. 6, 2022).....	4, 21
<i>PersonalWeb Techs., LLC v. Apple, Inc.</i> , 848 F.3d 987 (Fed. Cir. 2017)	14
<i>Univ. of Strathclyde v. Clear-Vu Lighting LLC</i> , 17 F.4th 155 (Fed. Cir. 2021)	6
<i>Virtek Vision Int'l ULC v. Assembly Guidance Sys., Inc.</i> , ___ F.4th ___, 2024 U.S. App. LEXIS 7185 (Fed. Cir. Mar. 27, 2024)	6

Other Authorities

37 CFR § 42.23(b)	4
-------------------------	---

Patent Owner Corrigent Corporation (“Patent Owner”) respectfully submits this Sur-Reply to Petitioner’s Reply (Paper 21, “Reply”) regarding U.S. Patent No. 9,118,602 (Ex.1001, “’602 patent”).

I. Introduction

The Petition was deficient, as the record in this case confirms. It is undisputed that Petitioner’s primary reference, Raz, utilizes internal subports that are not a LAG that externally connects routers or switches. The record through the Patent Owner Response (Paper 14, “POR”) confirmed as much, whereby Patent Owner identified numerous deficiencies and arguments that were not presented in the POPR. Petitioner’s Reply ran away from these issues and from Petitioner’s original obviousness theory, which could not address them, by shifting to new improper arguments and evidence. Indeed, the Reply is accompanied by an extensive new expert declaration. *Compare* Ex.1004 at 42-63, 81-98 (“original declaration,” containing 39 pages addressing claims 1 and 15 for Ground 1, with 1½ pages for limitation 1.5) *with* Ex.1021 at 4-59 (“new declaration,” containing 55 pages addressing claims 1 and 15 for Ground 1, with 10 pages for limitation 1.5). But Petitioner’s new arguments and evidence cannot and do not cure the Petition’s and prior art’s problems, and only highlight their weaknesses.

The fully-developed record demonstrates that Raz (alone or in combination with Ferguson) does not render the challenged claims obvious. Raz uses a single

high-speed link to communicate streams between LSRs, and Raz’s internal multiplexing of subports is opposite to, and incompatible with, an external LAG—which teaches away from using a LAG. Moreover, Raz does not include claim 15’s “mapper.” For these and other reasons, Petitioner has not met its burden.

II. Raz Does Not Render the Claims Obvious for Ground 1

A. Raz Does Not Teach or Render Obvious a “LAG”

1. Petitioner’s New Arguments Fail

The Petition relied on Raz’s internal subports as purportedly disclosing a LAG. Pet. 13-15, 17, 19-21, 23, 25. The Board’s Institution Decision recognized this, noting that “Petitioner contends” that: “Raz discusses ... subports in a LAG” and teaches assigning “one subport of a LAG,” encoding a “subport of the LAG into the label,” and sending the packet between LSRs “via a ... subport.” Paper 8 at 7-9. The POR explained that this argument was deficient as a LAG is multiple links *between* two MPLS/LAG switches, whereas Raz teaches multiple processors (subports) *within* an LSR and only a *single* link between LSRs. POR 6-8, 25-28. The Reply recognizes these points. Reply 2-4, 7-9. Thus, to argue that Raz renders a LAG obvious, the Reply pivots, and asserts for the first time that Raz’s “single high-speed link ... between LSRs ... is merely a design choice,” that Raz’s single high-speed link had “bandwidth limitations,” that LAGs were “well-known,” and that a LAG would have been an obvious “alternative” to Raz’s single high-speed

link to “increase[] ... bandwidth” between LSRs. Reply 3-4 (citing Ex.1021 ¶¶14-17). These arguments fail for several reasons.

First, they are improper new argument and evidence. Unlike the Reply and new declaration, the Petition’s arguments never mentioned that LAGs were “well-known” and never mentioned or addressed Raz’s teaching of a “single” high-speed link between LSRs, much less asserted that Raz’s single link was a “design choice,” that it had “limit[ed]” bandwidth, or that a LAG was an obvious “alternative” or would “increase[]” the link bandwidth between Raz’s LSRs. Reply 3-4; Ex.1021 ¶¶14-17. Also, unlike the Reply, the Petition never relied on Ferguson for Ground 1 or Raz at 1:40-46 regarding “aggregate link speeds” and “larger capacity links.” Reply 3 (citing Ex.1007; Ex.1006 at 1:40-46); Ex.1021 ¶¶14-15, 17 (same). Indeed, the Reply and new declaration do not and cannot cite the Petition or original declaration for these new arguments. Reply 3-4.

These new arguments¹ and evidence should be disregarded. PTAB Consolidated Trial Practice Guide (Nov. 2019) (“PTAB-TPG”) at 73-74. In fact, the Federal Circuit has upheld the Board’s decisions to disregard new reply arguments and accompanying declarations, like the ones presented here. *See, e.g.,*

¹ “New argument” is used herein synonymously with “new theory” and “new rationale.”

Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd., 821 F.3d 1359, 1369-70 (Fed. Cir. 2016). In *Intelligent Bio-Systems*, the Court affirmed the Board’s decision excluding petitioner’s reply and accompanying declaration for presenting a new obviousness argument supported by new evidence not relied upon in the Petition. *Id.* Similarly, in *Ariosa Diagnostics v. Verinata Health, Inc.*, the Court approved “the Board’s rejection of [petitioner’s] reliance, in its Reply submissions, on previously unidentified portions of a prior-art reference to make a meaningfully distinct contention.” 805 F.3d 1359, 1367-68 (Fed. Cir. 2015). In *Netflix, Inc. v. Avago Technologies International Sales Pte. Ltd.*, the Board explained that petitioner’s reply cannot advance new theories “not explicitly offered or explained in the [p]etition,” as this would impose an unfair and improper burden on patent owner. IPR2021-00542, Paper 34 at 36-40 (PTAB Sept. 6, 2022) (Droesch, ALJ) (denying to consider new reply theories), *aff’d*, Nos. 2022-1800, 2022-2208, 2024 U.S. App. LEXIS 5749 (Fed. Cir. Mar. 11, 2024). Here, too, Petitioner’s shift in theories and new expert opinions prejudice Patent Owner, who cannot respond to them with new expert evidence at this late stage. *See* 37 CFR § 42.23(b).

Second, even if considered, the new arguments fail on the merits. Raz’s use of a single high-speed link is not “merely a design choice” that could have or would have been modified by the POSA. Reply 3. It is a critical aspect of Raz, as Raz is premised on how to handle a single high-speed link with slow-speed processors

(subports), and does so using multiple subports for processing such a single high-speed link and then multiplexing the subports' outputs into a single stream for transmission across such a single high-speed link. Ex.1006 at Title, Abstract, 1:1-8, 1:40-2:3, 6:24-38; POR 7-9, 12-13, 15-16. Replacing Raz's single high-speed link with the claimed LAG would result in a different structure and, as Petitioner recognizes, a different function than Raz's single link—and is thus not just an obvious “design choice.” Ex.1001 at claim 1; Reply 9, 13; POR 15-16.

In similar situations, the Federal Circuit has held that such significant modifications—where structure and function differed—were not simply obvious design choices. *See, e.g., In re Gal*, 980 F.2d 717, 719-720 (Fed. Cir. 1992). In *Gal*, a finding of “obvious design choice” was precluded because the claimed structure and the function it performed were different from the prior art. *Id.* Similarly, in *Ex parte Maeda*, the Board found the “proposed modification of Meserole is not an obvious design choice” because it “would result in a different function than that shown by Meserole,” much like how the new proposed modification of Raz (even if possible) would result in an entirely different structure and function. Appeal No. 2010-009814, Decision on Appeal, at 6-7 (PTAB Oct. 23, 2012) (Informative); *see also Cutsforth, Inc. v. MotivePower, Inc.*, 636 Fed. App'x 575, 578 (Fed. Cir. 2016) (“Merely stating that a particular placement of an element is a design choice does not make it obvious.”); *FanDuel, Inc. v. Interactive Games LLC*, 966 F.3d 1334,

1343-44 (Fed. Cir. 2020) (rejecting argument that missing element was “well-known” and simply an “obvious design choice”).

The Reply’s new obviousness argument also fails because it does not identify any LAG establishing an external connection between routers in Raz. *Univ. of Strathclyde v. Clear-Vu Lighting LLC*, 17 F.4th 155, 160 (Fed. Cir. 2021). The Reply concedes that Raz’s internal subports are “within an LSR” and recognizes that a LAG must be between network devices. Reply 2-3.

The Reply’s new argument further fails because it does not provide motivation for modifying Raz to use the claimed LAG. The Reply’s statement that a LAG “was an alternative that offers increased ... bandwidth” “[i]f a given high-speed transmission requires more bandwidth than the physical limit of the high-speed link” (Reply 3-4) fails to explain why a POSA would have sought “more bandwidth” between Raz’s LSRs, much less establish a need for a *LAG*. At most, it establishes that a POSA might have wanted additional bandwidth for the single high-speed link already discussed in Raz, nothing more. *See Virtek Vision Int’l ULC v. Assembly Guidance Sys., Inc.*, __ F.4th __, 2024 U.S. App. LEXIS 7185, at *6-9 (Fed. Cir. Mar. 27, 2024) (knowledge of “alternative” is insufficient for motivation).

Indeed, the Reply cites nothing demonstrating why a POSA would have modified Raz in a manner that would fundamentally alter its function of multiplexing internal subports for transmission over a single high-speed link. While the Reply

cites testimony from Dr. Rouskas regarding (i) Raz’s background statement about demand for bandwidth, which relates to Raz’s premise of needing more processing capacity *within* LSRs, and (ii) the mere possibility of increasing link bandwidth—neither (i) nor (ii) establishes a motivation to increase link bandwidth *between* Raz’s LSRs. Reply 3-4 (citing Ex.1022 at 21:19-22:6 (regarding Ex.1006 at 1:40-41), 27:20-28:16 (regarding what was “[technically] possible”)). There is no motivation for utilizing a LAG for increased link bandwidth between LSRs because Raz’s single high-speed link between LSRs already exceeds the processing capacity of the LSRs, and Raz’s internal subports facilitate transmissions across that single link. POR 12-13, 7-9, 15-16, 28-29.

2. Petitioner Fails to Rebut the POR’s Arguments

Petitioner also fails to rebut the deficiencies raised in POR section II.E.1 regarding Petitioner’s seemingly now-abandoned argument about Raz’s subports purportedly constituting a LAG. The POR explained that (i) subports are *processors within* an LSR, not *links between* LSRs, (ii) subports are not “aggregated” in the sense of a LAG, (iii) Raz distinguishes between subports and a LAG, and (iv) Raz teaches away from a LAG. POR 25-29. The Reply’s attempt to summarily dismiss these arguments with ambiguous cross-references fails. Reply 13.

To save face, the Reply again pivots and raises an improper new argument that Raz’s subports “act functionally like a LAG.” *Compare* Pet. 13-17, 19-21, 23,

25 *with* Reply 13 & Ex.1021 ¶¶58-60. But, the Reply and new declaration do not and cannot cite to the Petition or original declaration for this new “function” argument, and instead rely on Ferguson, which the Petition cited only for Ground 2. Reply 13; Ex.1021 ¶¶58-60. Petitioner’s new “function” argument should be disregarded. PTAB-TPG at 73-74; *see supra*, pp. 3-4.

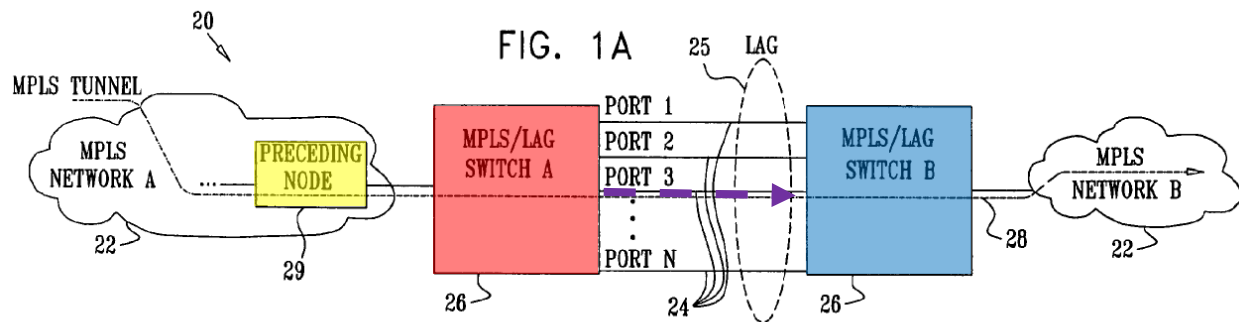
Even if considered, Petitioner’s new argument is incorrect because Raz’s subports are processors, not links, and their outputs are multiplexed, which is the opposite of a LAG (inverse multiplexing). POR 26-28. Also, while Petitioner asserts that Dr. Rouskas “admits” to Petitioner’s new “function” argument, citing deposition testimony, , Petitioner mischaracterizes Dr. Rouskas’ testimony and opinion in this proceeding, in which Dr. Rouskas is clear that Raz’s reference to a LAG in the context of a repurposed switch shows the distinction between subports and a LAG. Reply 13 (citing Ex.1022 at 31:21-34:5); Ex.2007 ¶93.

B. Raz Does Not Teach or Render Obvious Sending a Packet Between MPLS/LAG Switches Via a Single Physical Tunnel Port Assigned and Encoded in a Label by the First MPLS/LAG Switch

The POR explained how the claims recite a first MPLS/LAG switch assigning a tunnel port of a LAG between that first MPLS/LAG switch and a second MPLS/LAG switch, and then *sending* a data packet between the first and second MPLS/LAG switches via that particular tunnel port that was assigned. POR 9-

10, 39. An exemplary embodiment of this was shown in '602 patent Figure 1A, annotated below. *Id.*

(1) first switch (red) assigns subport 3 and sends label encoding subport 3 to preceding node (yellow), which then sends to the first switch (red) a packet with the label;
 (2) first switch (red) **sends** the packet via subport 3 to second switch (blue)



Ex.1001 at Fig. 1A (annotated).

The POR explained that Raz, however, teaches an LSR selecting, and generating a label indicating, a subport used for packets **received** by that LSR—as shown in Raz’s Figure 3, annotated below. POR 10-12, 31, 39-42. The subport used for packets **sent** from that LSR is independently selected by, and indicated in a label generated by, the next downstream LSR. *Id.*

(1) LSR B (red) selects subport 0 and sends label indicating subport 0 to LSR A (yellow), which then sends to LSR B (red) a packet with the label;
 (2) LSR B (red) **receives** the packet via subport 0 from LSR A (yellow)

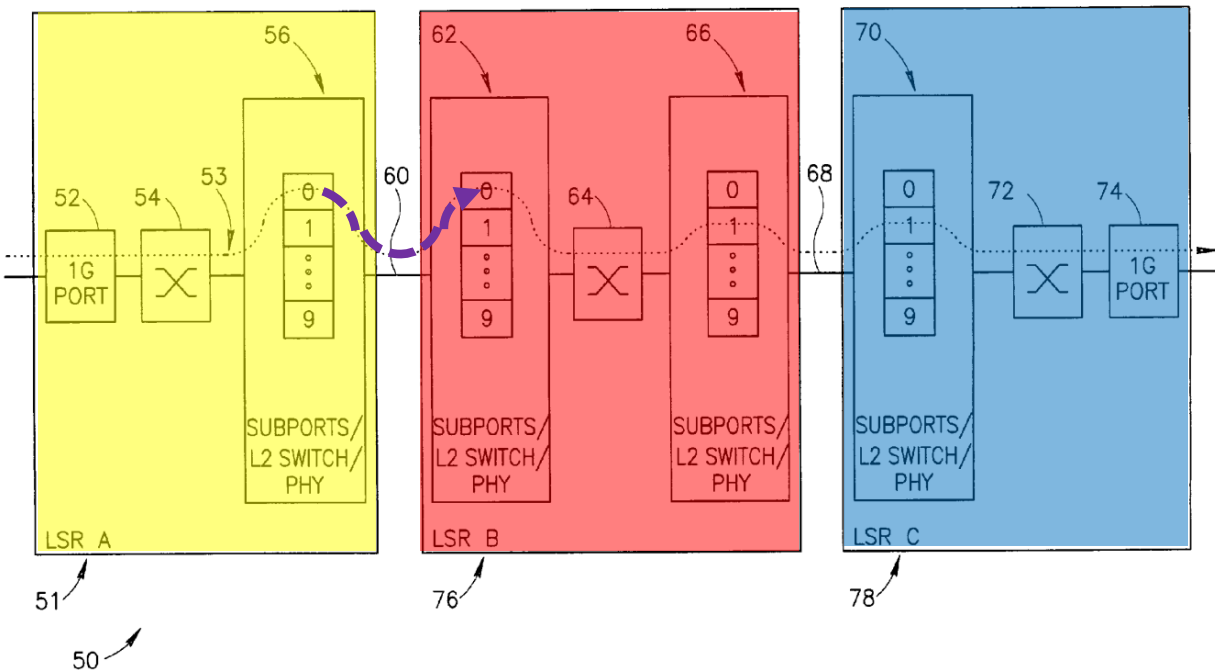


FIG.3

Ex.1006 at Fig. 3 (annotated).

First, the Reply argues that the POR “improperly imports a limitation into the claims” because “[t]he claims do not require that the first [MPLS/LAG] switch **assign** the single physical tunnel port ... used to send a data packet to the second [MPLS/LAG] switch.” Reply 4-5 (emphasis in original). But this misreads the claims. The claim language and antecedent bases in claims 1 and 26 require “assigning, by a first MPLS/LAG switch, **a** single physical tunnel port” and then sending a packet between first and second MPLS/LAG switches “via **said** single physical tunnel port.” Ex.1001 at claims 1, 26 (emphases added). The Reply argues

that the “the claims ... require only that ... packets are sent to the second MPLS/LAG switch through the single physical tunnel port having the port serial number encoded in the data packet label” (Reply 5), but this ignores that “*said* single physical tunnel port” indicated in the label must be the same “single physical tunnel port” assigned by the first MPLS/LAG switch. Ex.1001 at claims 1, 26. Petitioner’s expert in this proceeding and the petitioner’s expert in IPR2023-00839 (likewise challenging the ’602 patent) agree that the single physical tunnel port via which the packet is sent between first and second MPLS/LAG switches in limitation 1.5 must be assigned by the first MPLS/LAG switch per limitation 1.1. Ex.2008 at 97:1–98:13; IPR2023-00839, Ex.1003 ¶¶131-32; IPR2023-00839, Ex.2013 at 49:25–50:9, 51:25–53:1. Additionally, the Reply’s argument that this claim requirement does not exist signifies that **the Petition failed to address this claim requirement.**

Second, the Reply argues in a footnote that “[e]ven if the claims ... require that the first MPLS/LAG switch assign the single physical tunnel port ... used to send a data packet to the second MPLS/LAG switch, this would have been a straightforward design choice” Reply 5 n.1 (citing Ex.1021 ¶21). But, again, this is improper new argument and evidence, does not cite to the Petition or original declaration, and should be disregarded. PTAB-TPG at 73-74; *see supra*, pp. 3-4.

Even if considered, this new argument is conclusory and fails to explain why or how a POSA would have modified Raz’s method such that a subport is assigned

by a sending LSR instead of a receiving LSR as Raz teaches. Reply 5 n.1; POR 10-11. Petitioner’s allegation that it was a “design choice” is both insufficient and wrong because the proposed modification would result in a different function than Raz discloses. *See supra*, pp. 5-6. Moreover, a POSA would not have been motivated to make such a modification, as Raz establishes that its LSRs assign subports for receiving, not sending, packets. POR 10-11, 31-33, 39-42.

Third, the Reply argues that the POR “oversimplifies the example embodiment in Figure 3 of Raz” because “it would have been obvious ... that the same subport could have been used ... for the transmission of a data packet from the preceding [LSR A] to the first [LSR B] to the second [LSR C].” Reply 5-6 (citing Ex.1021 ¶¶20, 22). That is, the Reply argues that although Raz teaches that LSR B prepares a label indicating the numbered subport used for packets sent between LSRs A and B, a subport with the “same subport number” “could have” been used for packets sent between LSRs B and C. Reply 5-6. But this argument was not raised in the Petition or original declaration. In fact, neither the Petition or original declaration even mention *subport numbers*. Thus, this improper new argument should be disregarded. PTAB-TPG at 73-74; *see supra*, pp. 3-4.

Even if considered, this new argument fails. In Raz’s Figure 3 embodiment—as shown annotated below—LSR B (red) selects, and generates a label indicating, the subport (green) used for receiving packets from LSR A (yellow), whereas the

subport (purple) used for transmitting packets from LSR B to LSR C (blue) is independently selected by, and indicated in a label generated by, LSR C. POR 10-11, 33, 39-41. There is no record evidence to the contrary. So, despite having similar numbering, the subports for receiving (green) are not the same as the subports for sending (purple).

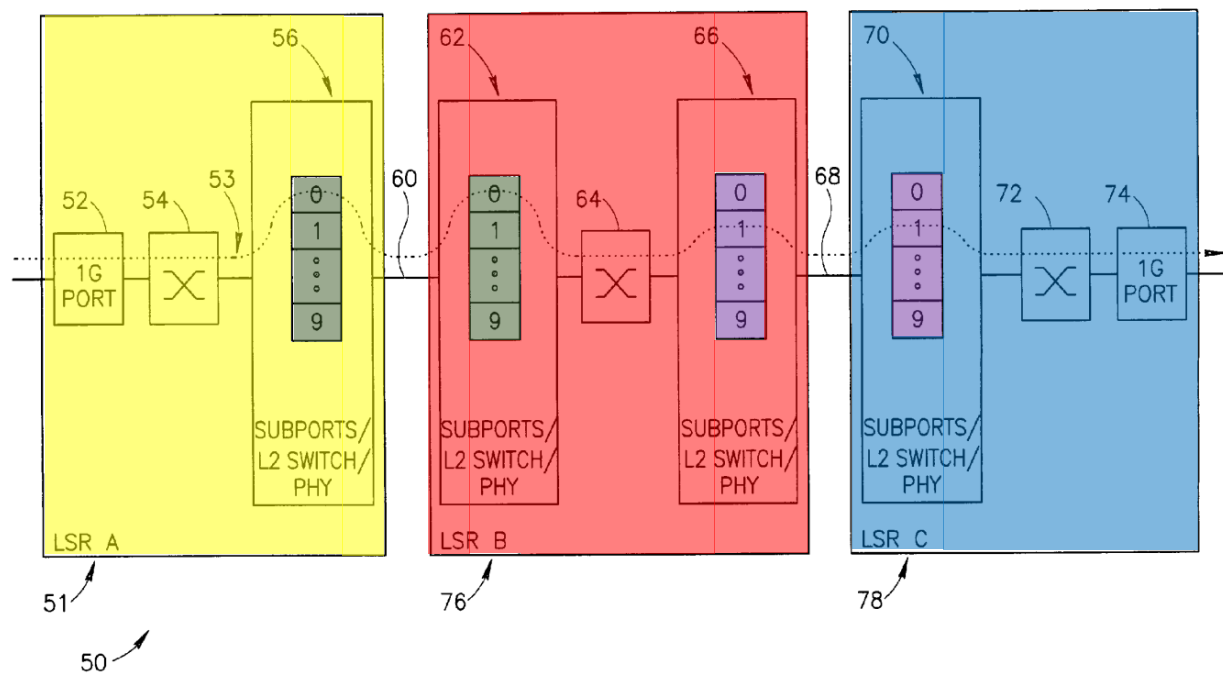


FIG.3

Ex.1006 at Fig. 3 (annotated).

Additionally, the Reply's argument regarding Raz's Figure 3 embodiment fails because it does not address or meet the claim requirement discussed above that the single physical tunnel port for sending a packet between first and second MPLS/LAG switches must be assigned by the first MPLS/LAG switch. That embodiment of Raz teaches that the subport for packets transmitted between

LSRs B and C is assigned not by LSR B (the alleged “first MPLS/LAG switch”) but rather LSR C. Ex.1006 at 9:29-10:4; POR 10-11, 33, 39-41.

Moreover, the Reply’s argument fails because it merely asserts that the same subport number “could have” been used, without establishing motivation, which is insufficient for obviousness. Reply 5-6; *PersonalWeb Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 993-94 (Fed. Cir. 2017).

C. A POSA Would Not and Could Not Have Implemented Raz’s Teachings of Internal Subports Between Two MPLS/LAG Switches

The POR explained that Raz’s mechanism is specifically for inside an LSR, and Raz teaches away from applying it externally. POR 12-13; *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009). The Reply responds by referencing “the reasons discussed above” (Reply 6), but reference to those “reasons” is ambiguous and underscores Petitioner’s inability to articulate a coherent basis for obviousness based on Raz.

The Reply argues that a POSA would have used a LAG and Raz’s techniques to increase link bandwidth between LSRs. Reply 6-7 (citing Ex.1021 ¶25). As explained above in section II.A.1, however, this is new argument and evidence and should be disregarded. For example, the Reply cites testimony regarding a statement in Raz about demand for bandwidth (Reply 7, citing Ex.1022 at 21:19-22:6, discussing Ex.1006 at 1:40-41), but the Petition does not cite or discuss that

disclosure in Raz. *See supra*, pp. 3-4. Even if considered, this new argument fails for the reasons in section II.A.1, including Petitioner’s failure to establish motivation for increased bandwidth between Raz’s LSRs, let alone motivation to modify Raz to meet the claim requirements. Indeed, the Reply here refers to “additional capacity” but fails to explain why additional capacity would be needed between Raz’s LSRs. Reply 7. The only evidence the Reply cites (besides the new declaration) is Dr. Rouskas’s testimony regarding bandwidth, which, as explained above in section II.A.1, fails to establish such motivation. Reply 7 (citing Ex.1022 at 21:19-22:6, 27:20-28:16).

The POR also explained that Raz and the ’602 patent address different problems. POR 13-14. The Reply responds that both Raz and the ’602 patent aim to “maximize available bandwidth,” but this conflates capacity of internal processors (i.e., Raz’s subports) with bandwidth of links between devices (e.g., in the context of the claimed LAG). Reply 7. Internal processing by subports and external transmission via links are distinct concepts. *See* Ex.2007 ¶¶49-50, 55-63, 71-72; Ex.1004 ¶59. The Reply itself, and Petitioner’s expert, acknowledges that “[s]ubports ... are different from the link between LSRs” and concedes that Raz is about maximizing capacity of “*processors within* the LSR” whereas the ’602 patent instead concerns “*links between* MPLS/LAG switches.” Reply 9, 7 (emphases

added); Ex.2021 ¶¶13,100. The Reply fails to rebut that Raz’s problem is entirely unrelated to the ’602 patent’s claimed LAG.

The POR also explained that Raz’s internal operation does not pertain to an MPLS network handling a LAG. POR 14-15. The Reply responds that Raz’s invention “operates in an MPLS network.” Reply 7-8. But this misses the point. Raz merely accommodates an MPLS network and does not improve MPLS network engineering as in the ’602 patent claims. POR 14-15. The Reply also asserts that Raz “improve[s] ... bandwidth in a MPLS network.” Reply 8. But this mischaracterizes Raz, which is specifically directed to improving bandwidth management *within* LSRs, and this internal operation is outside the purview of MPLS. POR 12-15; Ex.1006 at Abstract, 1:40-2:3, 6:24-27.

The POR further explained that applying Raz’s method between MPLS/LAG switches would render Raz inoperable for its intended purpose because Raz is directed to *multiplexing* subport outputs into a single stream, which is the opposite of a LAG (inverse multiplexing) and which would not and could not have done with data transmitted over a LAG. POR 15-16. The Reply does not deny that Raz’s multiplexing is the opposite of a LAG and that multiplexing would not and could not have been used with data transmitted over a LAG. Instead, it asserts that Raz’s multiplexing is a “design choice,” that “it would have been an obvious alternative ... to use a LAG between LSRs ... to increase the bandwidth of the link between

LSRs,” and that then “there would be no need to multiplex.” Reply 8-9 (citing Ex.1021 ¶¶30-32).

First, however, Raz’s multiplexing is not merely a “design choice” because it is a core aspect of Raz, as Raz’s title includes “Multiplexing” and Raz states that the “present invention” relates to a “link multiplexing mechanism,” and removing Raz’s multiplexing as Petitioner alleges would result in a different function. Ex.1006 at 1:1-8, 1:65-66; POR 15-16, 27-29; *see supra*, pp. 5-6. Second, Petitioner’s assertion about a LAG being an obvious alternative to increase link bandwidth between Raz’s LSRs fails for the reasons explained in section II.A.1, including because this is improper new argument and the Reply fails to establish motivation. Indeed, the Reply here relies on Ferguson, which the Petition never cited for Ground 1, and again fails to establish motivation for increased link bandwidth in Raz, as it merely hypothesizes about “*if* there is a need to increase [link] bandwidth.” Reply 9 (citing Ex. 1007) (emphasis added). Third, the Reply itself admits that “if a LAG were ... between LSRs, there would be no need to multiplex the packet streams transmitted between LSRs”—that is, a LAG would obviate the need for Raz’s invention altogether. Reply 9.

The POR also explained that Raz uses the same subport on both sides of a link, which cannot be done if Raz’s method is applied to the link itself. POR 16. The Reply responds that Raz’s “[s]ubports ... are different from the link between

LSRs,” and that “use of a LAG ... between LSRs would not affect the subports within the LSRs.” Reply 9. But that misses the point, which is that Raz’s subport-related method cannot be applied to a LAG between LSRs as Petitioner alleges. POR 16. The Reply does not and cannot explain how Raz’s method, which uses the same subport on both sides of link, would purportedly apply to the link itself. Moreover, the Reply’s response contradicts the Petition’s repeated reliance on Raz’s subports for the LAG. Pet. 13-17, 19-21, 23, 25.

D. The Petition Fails to Establish Motivation to Modify Raz

The POR explained how the Petition contains no discussion of “modify[ing]” and only threadbare discussion of “motivat[ions],” each of which already assumes a LAG between Raz’s LSRs. POR 17. The Reply responds that “the Petition ... had extensive discussion of the motivation,” but fails to identify or explain any such motivation. Reply 9. Indeed, the Reply cannot point to any motivation in the Petition for modifying Raz to add a LAG between LSRs.

Preamble (“LAG”) — The POR explained that Raz’s subports are for internal processing, not communicating streams like a LAG. POR 18. The Reply responds that such internal processing “includes communicating.” Reply 9-10. But the subports are *internal processors*, not *links* for communicating between LSRs, such as the *links* of a LAG. POR 18, 26-27. Petitioner admits that “[s]ubports ... are different from the link between LSRs.” Reply 9.

The POR also explained that the Petition does not explain *why* or *how* a POSA would have been motivated to modify Raz’s specific teachings to include a LAG between LSRs. POR 18. First, regarding *how* Raz would be modified, the Reply’s response alleges modifications regarding “select[ing]” a port, communicating to a “preceding node” a “label” indicating that selection, and “forward[ing]” a packet through that selected port. Reply 10. But this fails to explain how Raz’s specific teachings would have been modified, as it does not discuss Raz’s teachings, like Raz’s assignment and labeling methods discussed in section II.B. above. Second, regarding motivation for *why*, the Reply asserts “these modifications would have been made [] to increase available bandwidth.” Reply 10 (citing Ex.1021 ¶¶38). But this fails for the reasons discussed in section II.A.1 above, including because it is new argument. The Reply here contains no citation to the Petition for this alleged motivation. *Id.*

The POR also explained that the Petition’s argument that communication both within and between LSRs is done the “same way” is wrong, including for the reasons in section II.C above and “technical reasons” in Dr. Rouskas’s declaration. POR 18-20 (citing Ex.2007 ¶¶71-72), 15-16. Petitioner’s expert concedes that there are indeed “technical differences between how packets [] move within a [device] [versus] between [devices].” Ex.1021 ¶¶40, 43-44. The Reply responds that those “technical differences” are not recited in the claims and not relevant to Raz’s

teachings. Reply 11. But this ignores the point, which is that Petitioner does not explain how Raz (even if somehow modified) would account for inevitable differences in communication *within* versus *between* LSRs. Moreover, the Reply fails to address the POR’s “first” and “second” arguments or incompatibility arguments. POR 19-20; *see* Reply 10-11.

The POR also explained that (i) the Petition’s assertion regarding “desire” fails, (ii) the Petition’s limitation 1.0 section failed to establish why or how Raz would have been modified to apply between MPLS/LAG switches, and (iii) regardless, Petitioner’s limitation 1.0 section cannot establish motivation for limitations 1.1–1.5. POR 20-21. The Reply does not address these arguments. *See* Reply 9-11.

Limitation 1.1 — The POR explained that the Petition’s assertion of what “could have been” is insufficient. POR 21. The Reply’s response does not specifically address that assertion or rebut the POR’s case law. *See* Reply 11-12.

The POR also explained again that Petitioner’s “same way” argument fails. POR 21. The Reply does not respond. *See* Reply 11-12.

The POR also explained that the Petition’s other assertions for limitation 1.1 neither establish motivation for a LAG to begin with nor explain specifically how Raz’s mechanism—which is incompatible with communications between LSRs—

would be modified to apply to a LAG. POR 21-22. The Reply does not respond. See Reply 11-12.

Limitations 1.2–1.5 — The POR explained why the Petition’s assertions for limitations 1.2–1.5 fail to establish motivation for those limitations. POR 22-23. The Reply does not directly address these arguments and instead refers ambiguously to “earlier” or “later” portions of the Reply. Reply 11 n.2.

E. The Petition Fails to Establish a Reasonable Expectation of Success

The POR explained that the Petition contains no argument regarding reasonable expectation of success, which is separate from motivation to modify. POR 24-25. In response, Petitioner recognizes that “reasonable expectation of success” is never mentioned in the Petition and then vaguely asserts that despite this, the Petition and original declaration discussed why a reasonable expectation of success existed. Reply 12 (citing Pet. 15, 19-20, 22-25; Ex.1004 ¶¶82, 90-91, 107-108; Ex.1021 ¶¶53-54). But the random Petition pages and declaration paragraphs to which Petitioner points not only fail to establish a reasonable expectation of success but also should be disregarded as new evidence of reasonable expectation of success because Petitioner’s reliance on them is clearly a backdoor attempt to repurpose previous unrelated arguments to cure the Petition’s deficiencies. PTAB-TPG at 73-74; *see supra*, pp. 3-4, including *Netflix*, IPR2021-00542, Paper 34 at 36-40 (denying theories “not explicitly offered or explained” in the petition). Moreover,

the Reply references only two generic modifications to Raz and does not discuss or cite any evidence establishing a reasonable expectation of success for the specific modifications needed to meet all limitations of the independent claims. Reply 12. Ultimately, the Reply does not and cannot remedy the Petition’s deficiencies.

The POR also argued there *would be* no reasonable expectation of success, as Raz would be inoperable when modified as alleged. POR 25 (citing Ex.2007 ¶86). The Reply ignores this.

F. Raz Does Not Teach or Render Obvious Independent Claim 15

The POR explained that the Petition fails to show that Raz’s subport forwarding module—the purported “mapper” recited in limitation 15.5—performs limitations 15.6–15.8. POR 43-44. While Petitioner asserts this is incorrect, Petitioner’s response does not cite the Petition and instead provides only improper new argument and evidence seeking to cure the Petition’s deficiencies. Reply 17-18 (citing Ex.1021 ¶¶82-88). This should be disregarded. PTAB-TPG at 73-74; *see supra*, pp. 3-4.

Even if considered, however, the Reply’s new argument fails. For example, the Reply asserts for limitation 15.8 that Raz’s forwarding module “forward[s]” a packet to a subport. Reply 17-18 (citing Ex.1006 at 7:51-52, 7:42-45). But, as the POR explained, Raz’s subport forwarding module cannot both “receive a data packet from an upstream node” (limitation 15.6) and also send the packet to a *different LSR*

(limitation 15.8). POR 44-48. Instead, the evidence Petitioner cites for limitation 15.8 relates to sending the packet to a subport within the same LSR. POR 44-46, 31-33.

The Reply also alleges Raz's subport forwarding module renders the claimed "mapper" obvious, but this obviousness argument also amounts to improper new argument that should be disregarded. Reply 18-19 (citing Ex.1021 ¶¶85-88). While the Petition may include one statement mentioning Raz's "forwarding module," it is not in relation to any obviousness argument; the Petition's obviousness arguments never mention Raz's subport forwarding module. Reply 18-19 (citing Pet. 46); POR 48-49; PTAB-TPG at 73-74; *see supra*, pp. 3-4. Even if considered, the Reply's new obviousness argument fails because it is conclusory and does not explain specifically why or how Raz's forwarding module would be modified to apply to a LAG. Reply 18.

III. Raz and Ferguson Do Not Render the Claims Obvious for Ground 2

A. Raz Would Not Have Been Modified In View of Ferguson's Disclosures

The POR explained that there is no motivation for Ground 2 because Raz's mechanism is specifically for inside an LSR and teaches away from application between LSRs. POR 52-53. The Reply ignores Raz's teachings and responds in conclusory fashion that Raz "could be applied ... between LSRs." Reply 19-20.

However, the Reply never explains *why* or *how* Raz would be modified in view of Ferguson.

For example, the POR explained that a POSA would have understood that while Ferguson discloses its techniques could be applied within or between routers, the same would not be true for Raz, which is solely dedicated to communications within an LSR. POR at 53, 60-64. Petitioner's response is to cite to a single conclusory paragraph of its expert's declaration that does nothing to clarify why a POSA would have looked to, or implemented, Ferguson's disclosures. Reply 20 (citing POR 53, 60-64; Ex.1021 ¶97). By contrast, Patent Owner has explained, using Raz's and Ferguson's disclosures and expert testimony, that Raz would not have been modified based on Ferguson to meet the claims. POR 51-56.

The POR also explained that Raz and Ferguson address different problems and use fundamentally different methods. POR 53-56. The Reply does not directly address these differences, which it asserts are irrelevant. Reply 20-22. Instead, it pivots to the issue of bandwidth, asserting that Ferguson and Raz both seek to improve "bandwidth when using a LAG." Reply 20-21, 23 (citing Ex.1006 at 10:60-11:12). But, as shown by Petitioner's cited disclosure, Raz's bandwidth concern relates to allocating bandwidth of subports *within* an LSR, not between LSRs. Ex.1006 at 10:60-11:12; Ex.2007 ¶160. Even if bandwidth is relevant, moreover, Petitioner's generic references to "bandwidth" are conclusory and do not show how

Raz would have been modified or combined with Ferguson “in the way the claimed invention” operates—either with respect to the use of a LAG, or the use of assignment and labeling for transmission of a packet from a preceding node and then subsequently *between* label switched routers. *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012). In fact, Petitioner’s expert concedes that he “ha[s] not provided an opinion that Raz’s method of label provisioning should be changed in light of Ferguson” (Ex.1021 ¶104), and Petitioner does not explain what the label provisioning would look like in the version of Raz modified in view of Ferguson.

B. The Petition Fails to Establish a Reasonable Expectation of Success

Consistent with the lack of a specific motivation, the Petition contains no argument regarding reasonable expectation of success of modifying Raz in view of Ferguson. POR 64-65. While the Reply asserts that “the Petition explains why a POSA reasonably would have expected success” (Reply 23-24), this argument fails to remedy the Petition’s shortcomings, and even if considered, the relied upon testimony from Petitioner’s expert is conclusory. *See* Ex. 1021 ¶120.

C. Ground 2 Fails Even If Raz Is Modified Based on Ferguson

The POR explained that even if Raz is modified based on Ferguson, as alleged, Ground 2 still fails for reasons discussed for Ground 1. POR 65-66. The Reply does not deny that those reasons apply to Ground 2. Reply 24.

IV. Conclusion

For the foregoing reasons, the Board should reject all grounds in the Petition and affirm the patentability of the challenged claims.

Date: April 2, 2024

Respectfully submitted,

/ James R. Nuttall, Reg. No. 44,978 /

James R. Nuttall, Reg. No. 44,978

STEPTOE & JOHNSON LLP

227 West Monroe, Suite 4700

Chicago, Illinois 60606

Tel: (312) 577-1260

Fax: (312) 577-1370

Katherine D. Cappaert, Reg. No. 71,639

Christopher A. Suarez, Reg. No. 72,553

Benjamin R. Holt, Reg. No. 78,605

Heather P. Hildreth, Reg. No. 75,978

STEPTOE & JOHNSON LLP

1330 Connecticut Avenue, NW

Washington, DC 20036-1795

Tel: (202) 429-3000

Fax: (202) 429-3902

Counsel Corrigent Corporation

CERTIFICATION UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24, the undersigned hereby certifies that the foregoing document contains 5,585 words, and thus complies with the word-count limits of 37 C.F.R. § 42.24.

Date: April 2, 2024

By: / James R. Nuttall, Reg. No. 44,978 /

James R. Nuttall, Reg. No. 44,978

STEPTOE & JOHNSON LLP

227 West Monroe, Suite 4700

Chicago, Illinois 60606

Tel: (312) 577-1260

Fax: (312) 577-1370

Counsel for Corrigent Corporation

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing PATENT OWNER SUR-REPLY was served on April 2, 2024 by filing this document through the P-TACTS platform as well as by delivering a copy via the delivery method indicated to the attorneys of record for the Petitioner as follows:

Via Email:

Jeffrey D. Blake
jblake@merchantgould.com
Daniel W. McDonald
dmcdonald@merchantgould.com
CorrigentIPR@merchantgould.com

Date: April 2, 2024

By: / James R. Nuttall, Reg. No. 44,978 /

James R. Nuttall, Reg. No. 44,978
STEPTOE & JOHNSON LLP
227 West Monroe, Suite 4700
Chicago, Illinois 60606
Tel: (312) 577-1260
Fax: (312) 577-1370

Counsel for Corrigent Corporation