

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARISTA NETWORKS, INC.,

Petitioner,

v.

ORCKIT CORPORATION,

Patent Owner.

Case IPR2024-01238
Patent No. 8,830,821

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST	
2001	U.S. Patent Publication No. 2011/0141877 to Xu et al., (“Xu”)
2002	U.S. Patent Application Publication No. 2004/0205239 to Doshi et al., (“Doshi”)
2003	“About Orckit-Corrigent: Executive Summary,” 2011
2004	“MPLS: What Is Multiprotocol Label Switching”, <i>downloaded from</i> https://www.paloaltonetworks.com/cyberpedia/mpls-what-is-multiprotocol-label-switching , <i>last accessed</i> May 22, 2023.

I. INTRODUCTION

The Petition is a serial petition that copies arguments made in IPR2023-00402 and its copycat, IPR2024-00034, in an attempt to invalidate the claims of the '821 Patent that survived the -00402 and -00034 IPRs previously filed by Cisco and Juniper, respectively. In particular, Petitioner waited until the last day of the statutory deadline under 35 U.S.C. § 315(b) to file a Petition that largely copies the -00402 IPR. Then, with the benefit of the briefing of the parties and oral hearing arguments in the prior IPRs, Petitioner filed this IPR with either duplicative or cumulative arguments as previous IPRs in which the Board has already issued final written decisions.

As discussed below, every *Becton, Dickinson* factor strongly favors the Board exercising its discretion to deny institution. This IPR largely copies the -00402 IPR. The asserted prior art, grounds, and arguments are identical or nearly identical to the previous IPRs. Three of the four asserted prior art references (Doshi, Guichard and Huang) are the same references used in the -00402 and -00034 IPRs, including the primary reference, Doshi. Petitioner challenges nineteen of the twenty challenged claims by relying on the exact same prior art references as the previous IPRs with arguments that are largely the same as the -00402 and -00034.

The only change is that Petitioner substitutes the Ashwood Smith reference for the Xu reference for the single limitation “logic configured to determine a

probability of concurrent failure of said working entity and said protection entity,” which appears only in a single limitation of claim 14. All other prior art, grounds, and arguments across the other 19 claims are substantively the same.

In any event, the Ashwood Smith reference is cumulative of the prior art Doshi and Xu combination asserted in the -00402 and -00034 IPRs. Though Ashwood-Smith discusses the concept of a “probability of failure” in the context of working and backup entities, it has nothing to do with determining a probability of concurrent failure of a working entity and a protection entity. Instead, like Doshi, Ashwood Smith discusses failure at a single point in the network and teaches against using working and backup entities that share that single point unless its probability of failure is sufficiently low.

Accordingly, the Board should exercise its discretion to deny institution under 325(d).

II. BACKGROUND

A. Procedural History

This is the third IPR filed against the ’821 Patent. On January 9, 2023, Cisco Systems, Inc. filed IPR2023-00402. On October 11, 2023, Juniper Networks filed IPR2024-00034 against the ’821 Patent using identical prior art and grounds to those in IPR2023-00402. The -00034 IPR was later joined with the -00402 IPR. IPR2024-00034, Paper 7. A final written decision issued in IPR2024-00402 on October 22,

2024 finding challenged claims 1-13 and 17-20 unpatentable and challenged claims 14-16 not unpatentable. IPR2024-00402, Paper 40, 68. Juniper filed an appeal as to claims 14-16 that it later voluntarily dismissed. No parties are currently appealing IPR2023-00402 or IPR2024-00034. This IPR was filed on August 2, 2024, the last day of the statutory period for filing IPRs.

Petitioner's IPR presents essentially no new issues that were not previously before the Board. Instead, this IPR is largely identical to the -00402 and -00034 IPRs, using the same grounds and same references as those IPRs except for the Ashwood Smith reference, which replaces Xu for a single claim (claim 14). All of the other merits arguments appear virtually the same as the -00402 IPR. *Compare* Pet., 18-80 *with* IPR2023-00401, Pet., 20-79.

The '821 Patent is asserted in *Orckit Corporation v. Arista Networks, Inc.*, Civil Action No. 1-23-cv-00821 (D. Del., Jul. 28, 2023). and *Orckit Corporation v. Juniper Networks, Inc.*, Civil Action No. 1-23-cv-00822 (D. Del., July 23, 2023). Those cases are stayed pending institution of the Arista IPRs.

The '821 Patent was also asserted in *Orckit Corporation v. Cisco Systems, Inc.*, Case No. 2:22-cv-00276 (E.D. Tex. July 22, 2022). That case was dismissed without prejudice pending the outcome of the Cisco IPRs.

B. The History Behind Orckit Corporation's Patents

Orckit Corporation is the current assignee of the '821 Patent, which originated

from the significant research and development conducted by Orckit Communications Ltd. (also known as Corrigent-Systems Ltd., referred to herein as “Orckit-Corrigent”).

Orckit was founded in 1990 by Izhak Tamir and Eric Paneth. In September 1996, Orckit announced an Initial Public Offering (IPO) of 3.3 million ordinary shares at a public offering price of \$16.00; but its initial public offering on the Nasdaq over-the-counter exchange was postponed due to oversubscription because of excess public demand for its shares. *See* <https://en.wikipedia.org/wiki/Orckit-Corrigent>).

Over the years, Orckit-Corrigent and its subsidiaries developed and sold products in a variety of telecommunications areas, including DSL, Packet Transport Networks (PTN), Carrier Ethernet technologies, PWE (Pseudo-Wire Emulation) technology, and Resilient Packet Ring (RPR) technology, which was developed and introduced to the market as the IEEE 802.17 Standard, part of the company’s packet transport technology. In 2007, Orckit-Corrigent launched its CM4000 PTN line of products, which were purchased and deployed by telecom providers worldwide, including leading Indian carrier Bharat Sanchar Nigam Ltd. (BSNL); T-Systems (Deutsche Telekom) in Germany; Tele2, a leading Pan-European Scandinavian Service Provider; redIT (formerly MetroNet) in Mexico, and others. At one time, Orckit-Corrigent had offices in Israel, US, India, Japan, Korea, Germany, Russia,

Brazil, Mexico, Thailand, and the Philippines.

Over the years, Orckit-Corrigent invested over \$200M in research and development and developed an extensive patent portfolio practiced by its products, notably, the CM-4000 product family, which was a series of packet transport network switches (consisting of, among other products, the CM-4140, CM-4206 and CM-4314T/4314 models), and the CM-401x portfolio of switches that included the CM-4011, CM-4012 and CM-4013 products. Ex. 2003, [Orckit-Corrigent Executive Summary].

Orckit-Corrigent's products offered networking infrastructure for the delivery of residential, business, and mobile backhauling services in packet-based networks. By the early 2000s, Orckit-Corrigent was a pioneer in telecommunications, with revenues some years exceeded \$500M from sales to various tier 1 global telecommunications providers.

Despite its early success, following the “dot-com bust,” Orckit-Corrigent found itself amassing ever increasing debt. In 2012, Orckit-Corrigent was ultimately forced to enter into debt restructuring/bankruptcy proceedings in Israel. In 2016, Orckit IP purchased all of Orckit-Corrigent’s patents, including the ’821 Patent, through those proceedings. Orckit Corporation subsequently acquired a smaller set of Orckit-Corrigent’s patents, including the ’821 Patent.

C. '821 Patent

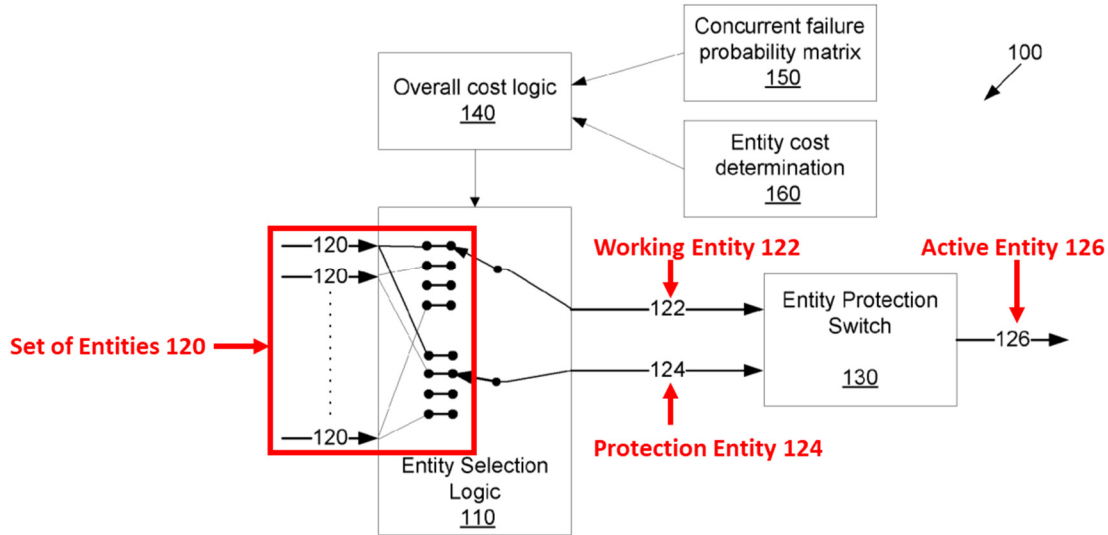
The '821 Patent is directed to coordinating the selection of MPLS network transport entities between a first endpoint and a second endpoint. Ex. 1001 ['821 Patent], Abstract. “MPLS,” or “Multiprotocol Label Switching,” is a networking technology that routes network traffic using the shortest path based on “labels” rather than network addresses. Ex. 2004 [What is Multiprotocol Label Switching], 1. That is, each data packet is assigned a label that controls the path the packet follows. *Id.* This path is referred to in the '821 Patent as a “label switch path (LSP).” Ex. 1001 ['821 Patent], 1:40.

MPLS requires support of “transport entity or trail recovery.” Ex. 1001 ['821 Patent], 38-40. The transport entity is the path (LSP, pseudowire (PW) or sub network connection (SNC)) that is used to transport a particular packet. *Id.*, 40-43. In the event that a span or node (i.e., a physical connection in the LSP such as a wire or switch) fails, the path must recover within 50 ms. Ex. 1001 ['821 Patent], 1:40-45.

In order to ensure that the path recovers within 50 ms, MPLS defines a second transport entity known as the “protection entity.” *Id.*, 1:46-51. The original transport entity is known as the “working entity.” *Id.* “When a failure is detected at the working entity, the endpoints switch traffic [from the working entity] to the protection entity.” *Id.*

Existing methods for protecting against failures (“linear protection mechanisms”) did not “protect against one or several failures affecting both the working entity and the protection entity.” *Id.*, 1:61-66. The ’821 Patent addresses this problem by determining an overall cost for each potential pair of entities, selecting one pair based at least in part on the entity pair cost, and then reselecting the entity pair if certain events occur. Ex. 1001 [’821 Patent], 2:11-18.

Annotated Fig. 1 (below) demonstrates the relationship between entities. As shown, there are a number of transport entities 120 considered for selection as the working entity 122 and protection entity 124 based in part on the “overall cost logic 140” for each entity 120. Each of these entities 120 is a distinct network route. Ex. 1001 [’821 Patent], 3:36-40. Entity selection logic 110 first determines a pair of entities based on factors such as overall entity cost for the pair. Ex. 1001 [’821 Patent], 4:11-29, Fig. 2. “One entity of the entity pair may be selected as a working entity Similarly, a protection entity may be selected from the entity pair.” Ex. 1001 [’821 Patent], 4:49-57, Fig. 3. Once the working entity 122 and protection entity 124 are determined, entity protection switch 130 determines which entity to use as the active entity 126. *Id.*, 3:54-65, 4:57-59.



An embodiment of the entity selection method is disclosed at Fig. 2. The specification explains as follows:

A plurality of transport entities between a first endpoint and a second endpoint are provided, as shown by block 210. Each possible entity pairing is examined for cost in turn, starting with a first entity pair, as shown by block 215. An overall cost for each pair of the plurality of transport entities is determined, as shown by block 220. The overall cost may be determined based on the probability of simultaneous failure of the working and protection entities (SFP), as described below, the entity cost, or a combination of SFP and entity cost. The entity cost may be defined as the sum of the link metrics, for example IGP or TE metrics, along the entity.

Ex. 1001 [’821 Patent], 4:11-21. Thus, the working and protection entities in this embodiment are chosen based on the “overall cost” of the pair, which may consider

both the probability of simultaneous failure (that is, the probability both working entity and protection entities happen to be in a failed state at the same time) and the “entity cost.” The “entity cost” is “the sum of the link metrics, for example IGP or TE metrics, along the entity.” *Id.* “Link metrics” are related to the stability and/or bandwidth and/or responsiveness of systems and/or other characteristics of the path or link as a function of time or condition. The ’821 Patent describes several additional embodiments with different methods of minimizing overall cost. *See, e.g., id.*, 5:33-6:43, Figs. 4A-4C.

The ’821 Patent has three independent claims and 17 dependent claims. Consistent with the discussion above, the claims recite methods and systems for determining the overall cost for each entity pair, selecting an entity pair, and then reselecting the entity pair when an entity pair reselection occurs.

D. Petitioner’s Cited References

The Petition asserts three grounds, as shown below:

Ground	’821 Patent Claims	Basis for Challenge under §103
1	1-7, 9-11, 13, and 17-20	Doshi (Ex.1005) in view of Guichard (Ex.1006)
2	8 and 12	Doshi in view of Guichard and Huang (Ex.1007)
3	14-16	Doshi in view of Guichard and Ashwood Smith (Ex.1037)

Pet., 8. In each ground, Doshi is the primary reference. These grounds are identical

to the grounds in IPR2023-00402 and IPR2024-00034, except that Ashwood Smith is substituted for Xu as a secondary reference for claim 14:

Grounds	Claims	Basis
#1	1-7, 9-11, 13, and 17-20	35 U.S.C. § 103 (Pre-AIA) over Doshi and Guichard
#2	8 and 12	35 U.S.C. § 103 (Pre-AIA) over Doshi, Guichard, and Huang
#3	14-16	35 U.S.C. § 103 (Pre-AIA) over Doshi, Guichard, and Xu

IPR2023-00402, Paper 2, Pet., 14. *See also* IPR2024-00034, Paper 3, Pet., 2. In each ground, Doshi is the primary reference. The Petition’s analysis for claims 1-13 and 17-20 appears substantively identical to the analysis in IPR2023-00402 and IPR2024-00034. The Petition’s analysis for claims 14-16 is also nearly identical to IPR2023-00402 and IPR2024-00034 (relying primarily on Doshi), except Ashwood Smith is substituted for Xu for a single limitation in claim 14: “logic configured to determine a probability of concurrent failure.” Pet., 76-78. *Compare* Pet., 18-79 with IPR2023-00402, Paper 2, Pet., 14-84. As explained below, however, Ashwood Smith is cumulative of Doshi and adds nothing new to the validity analysis. Thus, this Petition is substantially the same as IPR2023-00402 and IPR2024-00034 for nineteen out of twenty challenged claims.

1. Doshi (Ex. 1005)

Doshi (U.S. Pat. Publ. No. US2004/0205239) is directed to a “method for determining primary and restoration paths for a new service in a mesh network.” Ex. 1005 [Doshi], Abstract. Doshi is the primary reference in every ground in this Petition and was also the primary reference in every ground in IPR2023-00402 and IPR2024-00034.

2. Guichard (Ex. 1006)

Guichard (“Definitive MPLS Network Designs”) appears to be a brief excerpt from a book titled “Definitive MPLS Network Designs.” Ex. 1006 [Guichard], 1. Guichard is a secondary reference (along with Doshi) in grounds 2 and 3 of this IPR, as well as IPR2023-00402 and IPR2024-00034.

3. Huang (Ex. 1007)

Huang (U.S. Pat. Pub. No. 2003/0117950) is directed to identifying backup paths for network routing in case of “the event of a failure in the fiber.” Ex. 1007 [Huang], Abstract. Huang is a tertiary reference in ground 2 of this IPR as well as ground 2 of IPR2023-00402 and IPR2024-00034.

4. Ashwood Smith (Ex. 1037)

Ashwood Smith (WO 2004/068799) is directed to a method for computing a backup path for protecting a working path in a data transport network. Ex. 1037 [Ashwood Smith], Abstract. Ashwood Smith is the only reference that was not

present in IPR2023-00402 and IPR2024-00034. As discussed above, the Petition uses Ashwood Smith to address a single limitation of a single claim in the '821 Patent—"logic configured to determine a probability of concurrent failure of said working entity and said protection entity." This is the same limitation the -0402 and -00034 IPRs relied on the Xu reference for.

Ashwood Smith "aims to avoid implementation of backup paths with segments shared among working paths that have a common potential point of failure." EX1037 [Ashwood Smith], 10:19-21. Ashwood Smith suggests different backup paths may share a common segment in instances where failure of the common point is "highly unlikely": "If the common point is highly unlikely to fail, it may be acceptable to allow working paths sharing that common point to also share a common segment on a backup path." *Id.*, 10:33-11:1. Thus, Ashwood Smith evaluates whether a common segment may be shared among two backup paths if the corresponding working paths also share a common point.

Importantly, Ashwood Smith discusses the probability of failure at a particular point in the network. Ashwood Smith does not discuss the probability of failure for an entire network path composed of numerous different points, let alone the probability of concurrent failure for two such paths (e.g., a working entity and a protection entity).

III. THE BOARD SHOULD DENY INSTITUTION UNDER 35 U.S.C. § 325(d)

35 U.S.C. § 325(d) states that “[i]n determining whether to institute . . . the Director may take into account whether . . . the same or substantially the same prior art or arguments previously were presented to the Office.” Thus, if the same or substantially the same prior art or arguments have previously been presented to the Board, the Board may exercise its discretion to deny institution. The Board has weighed the following non-exclusive factors in determining whether to exercise its discretion:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and

(f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson v. B. Braun Melsungen, IPR2017- 01586, Paper 8 at 17-18 (PTAB Dec. 15, 2017) (prec.).

A. Petitioner’s Arguments

This Petition is the third IPR filed against the ’821 Patent and is nearly identical to the Petitions in IPR2023-00402 and IPR2024-00034. *Supra*, §§II.A, D. The grounds and prior art are identical except for a single limitation in claim 14. Instituting this Petition would require the Board to devote significant resources to entertain nearly the same arguments that have already been made and evaluated in the -00402 and -00034 IPRs. Institution under these circumstances would be a waste of time and resources by the Board and parties.

Recognizing that this Petition should be denied under 35 U.S.C. § 325 (d), Petitioner devotes a section in the Petition to attempt to rebut PO’s arguments. Pet., 84-85. But Petitioner’s arguments reflect the weakness of its position. Petitioner does not address the controlling *Becton, Dickinson* decision or the factors discussed therein. *Id.* Instead, Petitioner raises unrelated and largely irrelevant arguments. For example, Petitioner argues that “the grounds in this Petition [] were not considered by the Examiner during prosecution,” (*id.*, 84), but the issue here is not with prosecution but with the prior Cisco and Juniper IPRs that made the same arguments

against the same claims using nearly the same grounds and same prior art. *See Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (“The proceedings in which the art was previously presented include, for example [] AIA post-grant proceedings involving the challenged patent.”).

Similarly, Petitioner argues that Arista is not an RPI or privy of Cisco or Juniper. Pet., 84-85. Even if true, that is irrelevant to a 325(d) analysis. Discretionary denial under 325(d) is not conditioned on the relationship between the current Petitioner and prior matters. Indeed, institution is often denied under 325(d) solely on the basis of overlapping prior art considered during prosecution, when Petitioners are never involved. That is because the purpose of 325(d) is to protect the Office from wasting resources on issues it has already decided and to protect patent owners from defending their patents against serial attacks like here using the same prior art and same arguments.

Petitioner also cites *Blonder-Tongue*, (Pet., 85), but discretionary denial under 325(d) has nothing to do with collateral estoppel. The decision whether to institute an IPR under 325(d) is in the sole discretion of the Board and is based on consideration of the *Becton*, *Dickinson* factors described below. If institution is denied, Petitioner will not be collaterally estopped—it will still be able to fully “litigate the issue” of validity in an Article III district court.

Petitioner knew 325(d) was an issue when it filed the Petition and knew the *Becton, Dickinson* factors govern application of 325(d). Petitioner chose not to address the relevant factors because none of the factors weighs in its favor. The Board should not permit Petitioner additional briefing to belatedly argue an issue it was fully aware of when it filed its Petition.

B. *Becton, Dickinson* Factors (a), (b) and (d)

Becton, Dickinson factors (a), (b) and (d) favor denying institution. Prior IPRs IPR2023-00402 and IPR2024-00034 present substantially the same grounds with substantially the same prior art advancing substantially the same arguments. Thus, factors (a), (b) and (d) overwhelmingly favor discretionary denial.

Factor (a) is the similarities and material differences between the asserted art and the prior art involved during examination. virtually all of the prior art and arguments in this IPR were previously presented to the Board in IPR2023-00402 and IPR2024-00034. Three out of the four prior art references used in IPR2023-00402 and IPR2024-00034 (Doshi, Guichard and Huang) are also used in this IPR, including Doshi, which is the primary reference in all grounds. With the exception of replacing Xu with Ashwood Smith for a single claim limitation in claim 14, IPR2023-00402 and IPR2024-00034 asserted identical prior art in identical grounds against the same claims with nearly identical arguments. *Supra*, §II.E. Thus, for 19 out of 20 challenged claims, the prior art and arguments in this IPR are the same or

substantially the same as the prior art and arguments in the -00402 and -00034 IPRs.

This IPR is the third IPR where Guichard and Huang have been considered in combination with Doshi using nearly identical grounds challenging identical claims. Factor (a) therefore strongly favors denying institution.

Factor (b) is the cumulative nature of the asserted art and the prior art evaluated during examination. The references here are cumulative of the references considered in IPR2023-00402 and IPR2024-00034. *Supra*, §II.D. For 3 out of 4 grounds and 19 out of 20 challenged claims, the prior art in this IPR is the same as the prior art in the -00402 and -00034 IPRs.

The only difference is that Petitioner replaces the tertiary Xu reference with Ashwood Smith for the single limitation in claim 14 of “logic configured to determine a probability of concurrent failure.” Pet., 76-78. But the disclosure in Ashwood Smith is cumulative of the Doshi-Xu combination asserted in the -00402 and -00034 IPRs. Indeed, Petitioner admits Ashwood Smith is cumulative of at least Doshi. Pet., 18 (“Like the ’821 Patent and Doshi, Ashwood Smith describes selecting a backup or protection path to guard against failures in a communication network.”); 66 (“Similar to the ’821 Patent and Doshi, Ashwood Smith relates to methods for determining a backup path for protecting a working path in a data transport network.”).

Petitioner is correct that Ashwood Smith is cumulative of at least Doshi. For

both references, the respective petitioner (Cisco in the -00402 IPR and Arista in this IPR) seems to have been searching for references that discuss working and backup entities and mention probability of failure. But both references discuss probability in an entirely different context than a “probability of concurrent failure of said working entity and said protection entity.”

Doshi teaches a shorthand heuristic where it ignores the probability of concurrent failure for two disjoint paths because it assumes that “the probability of occurrence of more than one failure during the time interval required to repair a failure is very insignificant.” EX1005 [Doshi], [0040]. Doshi does not determine the probability of concurrent failure for a protection entity and a working entity. Instead, Doshi suggests the probability of concurrent failure should be ignored. IPR2023-00402, Paper 40 (Final Written Decision), 61-62.

Ashwood Smith similarly ignores the probability of concurrent failure for paths. Instead, it teaches a shortcut where no common points can be shared between two different backup paths unless “the probability [of failure of the common point] is fairly low.” EX1037 [Ashwood Smith], 3:16-27; *see also id.*, 10:19-11:9. That is, Ashwood Smith is discussing the probability of failure for a single point. It is not determining the probability of failure for a network path (e.g., a network route composed of multiple different segments and nodes), let alone the probability of failure for two different paths that may not even share a common point.

The prior art asserted in this IPR is cumulative with the prior art asserted in the -00402 and -00034 IPRs. Accordingly, factor (b) strongly favors discretionary denial.

Factor (d) is the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art. This IPR largely copies the merits arguments from IPR2023-00402. *Supra*, §II.A, D. For 19 out of 20 claims, the arguments here are substantially the same as the arguments in IPR2023-00402 and IPR2024-00034. *See, e.g., Salem Fabrication Techs. Grp., Inc., v. Uniglass Eng'g Oy*, No. IPR2022-01517, Paper 9 at 25 (P.T.A.B. Mar. 22, 2023) (denying institution where “Petitioner could at best succeed on ... 1 of 15 claims [because] it would not be an efficient use of the Board’s time and resources.”). As shown below, the arguments advanced are only different for one limitation in claim 14 out of 20 challenged claims, where Petitioner has swapped out the Xu reference for the cumulative Ashwood Smith reference:

Grounds of -01238 IPR:

Ground	'821 Patent Claims	Basis for Challenge under §103
1	1-7, 9-11, 13, and 17-20	Doshi (Ex.1005) in view of Guichard (Ex.1006)
2	8 and 12	Doshi in view of Guichard and Huang (Ex.1007)
3	14-16	Doshi in view of Guichard and Ashwood Smith (Ex.1037)

Grounds of -00402 IPR:

Grounds	Claims	Basis
#1	1-7, 9-11, 13, and 17-20	35 U.S.C. § 103 (Pre-AIA) over Doshi and Guichard
#2	8 and 12	35 U.S.C. § 103 (Pre-AIA) over Doshi, Guichard, and Huang
#3	14-16	35 U.S.C. § 103 (Pre-AIA) over Doshi, Guichard, and Xu

IPR2023-00402, Paper 2, Pet., 14. *See also* IPR2024-00034, Paper 3, Pet., 2.

In every ground in both this IPR and the -00402 IPR, Doshi is the primary reference and Guichard is the secondary reference. Ground 2 in both IPRs (Doshi, Guichard and Huang) is also identical. And Ground 3 of this IPR merely substitutes Ashwood Smith as a tertiary reference instead of Xu for a single limitation of claim 14. *Id.* Thus, the arguments advanced in this IPR are virtually identical to the arguments advanced in IPR2023-00402 and IPR2024-00034. This factor strongly favors discretionary denial.

C. *Becton, Dickinson* Factors (c), (e) and (f)

Becton, Dickinson factors (c), (e) and (f) each favor noninstitution.

Factor (c) is the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection. Here, three of the four asserted prior art references (Doshi, Guichard and Huang) were evaluated

extensively during IPR2023-00402, resulting in a final written decision on appeal invalidating claims 1-13 and 17-20 and finding claims 14-16 not unpatentable. 19 of the 20 challenged claims rely on substantially similar arguments regarding those same three prior art references. Indeed, the Board even extended the pendency of IPR2023-00402 past the statutory year deadline in order to fully consider the cumulative asserted art in IPR2023-00402 and IPR2024-00034. IPR2023-00402, Paper 39. Accordingly, this factor favors denying institution.

Factor (e) is whether Petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art. Petitioner has not alleged the Board erred in the institution decision or final written decision for IPR2023-00402. Pet., 84-85.

Petitioner states “the grounds in this Petition based on Doshi, Guichard, Huang, and Ashwood Smith were not considered by the Examiner during prosecution.” Pet., 84. But that does not address the issue here, which is that the ’402 IPR final written decision fully considered Doshi, Guichard, Huang and Xu (IPR2023-00402, Paper 40), and the arguments Petitioner advances in this IPR are largely the same or cumulative of arguments made in the -00402 IPR. Accordingly, this factor strongly favors discretionary denial.

Factor (f) is the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments. As discussed above at

§§II.A and D, this IPR is nearly identical to the -00402 and -00034 IPRs. Grounds 1 and 2 in IPR2023-00402 and IPR2024-00034 are identical (i.e., Doshi and Guichard for ground 1 and Doshi, Guichard and Huang for ground 2) and Ground 3 is only different for the “probability of concurrent failure” limitation of claim 14, where Petitioner has replaced the tertiary reference Xu with Ashwood Smith. The limited new arguments related to whether Ashwood Smith discloses or suggests “logic configured to determine a probability of concurrent failure of said working entity and said protection entity” are largely cumulative of arguments advanced in the -00402 IPR for Doshi and Xu with respect to the same limitation. Accordingly, factor (f) favors denying institution.

Each *Becton, Dickinson* factor favors denying institution. The Board should therefore deny institution pursuant to 35 U.S.C. § 325(d).

IV. CONCLUSION

For the foregoing reasons, the Board should decline to institute this IPR under 35 U.S.C. § 325(d).

Date: December 27, 2024

Respectfully submitted,

/ Stephen P. McBride /
Stephen P. McBride
Reg. No. 78,396
CARMICHAEL IP, PLLC
8607 Westwood Center Drive
Suite 270
Tysons, VA 22182
Email: stevemcbride@carmichaelip.com
Telephone: (703) 646-9247

Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner's Preliminary Response ("POPR") consists of 4,497 words, excluding table of contents, table of authorities, certificate of service, this certificate, or table of exhibits. The POPR complies with the type-volume limitation of 14,000 words as mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare the paper (Microsoft Word).

Dated: December 27, 2024

/Stephen P. McBride/
Stephen P. McBride
Reg. No. 78,396

Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the following documents were served
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**PATENT OWNER'S PRELIMINARY RESPONSE
EXHIBITS 2001-2004**

The names and email addresses of the parties being served are as follows:

Eliot D. Williams	Eliot.williams@bakerbotts.com
Clarke W. Stavinoha	Clarke.stavinoha@bakerbotts.com
Jeremy Taylor	Jeremy.taylor@bakerbotts.com
Brianna Potter	Brianna.potter@bakerbotts.com

Respectfully submitted,

/Stephen P. McBride/

Date: December 27, 2024