

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner,

v.

PORTSMOUTH NETWORK CORP.,
Patent Owner.

Case IPR2024-00505

Patent 6,917,986

PATENT OWNER'S PRELIMINARY RESPONSE

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Pursuant to 37 C.F.R. § 42.120, Patent Owner Portsmouth Network Corp. (“Patent Owner”) respectfully submits this Preliminary Response to the Petition filed by Petitioner Cisco Systems, Inc. (“Petitioner”) regarding U.S. Patent No. 6,917,986 (EX1001, “’986 patent”).

I. Introduction

The ’986 patent claims a novel and non-obvious system to provide rapid reconfiguration of a network in response to network topology changes. In a network containing multiple interconnected switches, a failure in one switch may disrupt communication throughout the network. The ’986 patent’s system uses redundant ports and links to connect switches together so that data transmissions may continue in case a particular port or link fails. For example, when a switch detects a failure in one of its ports, it may activate a backup port and begin transmitting data through the link connected to the backup port. The ’986 patent discloses techniques and methods to detect and respond to a network failure without needing to modify existing standards or use special commands.

Petitioner challenges claims 1-2, 4-7, 9-14, 16-19, and 21-24, including independent claims 1, 12, 13 and 24, under Grounds 1A and 1B based on theories of single reference obviousness (*Gai*). While *Gai* generally relates to rapidly reconfiguring a computer network, it does so differently than the ’986 patent and

fails to disclose all of the '986 patent's independent claim limitations for multiple reasons.

First, *Gai* does not disclose sending dummy traffic “downstream” as required by claim limitations 12e and 24e.

Second, *Gai* does not disclose sending dummy traffic “to the one or more access switches” as required by claim limitations 1e and 13f.

Because of these deficiencies, the Petition fails to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one claim.

Furthermore, Petitioner's arguments for both Ground 1A and Ground 1B are based on modified figures that either do not exist in *Gai* or completely ignore *Gai*'s teachings. Because of these deficiencies, the Petition fails to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one claim of the '986 patent.

In addition to the Petition's failure to establish unpatentability of the '986 patent's independent claims, institution should be denied under 35 U.S.C. § 325 based on the *Advanced Bionics* framework. Petitioner relies exclusively on *Gai*, which was previously before the Patent Office. Not only that, but, as explained in detail below, Petitioner fails to identify any material error in the Examiner's previous evaluation of the art and arguments because *Gai* is mentioned in the original

specification of the '986 patent, the '986 patent discusses that *Gai* sends dummy traffic upstream instead of downstream, and Petitioner's expert declaration does not provide additional evidence that warrants reconsideration. Accordingly, Patent Owner respectfully requests that the Board exercise its discretion and deny institution.

Institution should also be denied under 35 U.S.C. § 314 based on the *Fintiv* factors. As explained below, of the six factors, one factor weighs strongly in favor of discretionary denial, three factors weigh in favor of discretionary denial, and one factor is neutral, leaving only one factor only marginally favoring not exercising discretion to deny institution. Importantly, the district court trial is currently set to occur approximately two months before the projected statutory deadline for a final written decision in this IPR, which heavily weighs against institution. Accordingly, Patent Owner respectfully requests that the Board exercise its discretion and deny institution.

II. Claim Construction

A court “‘look[s] to the words of the claims themselves ... to define the scope of the patented invention.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). A claim term is generally given its “ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary

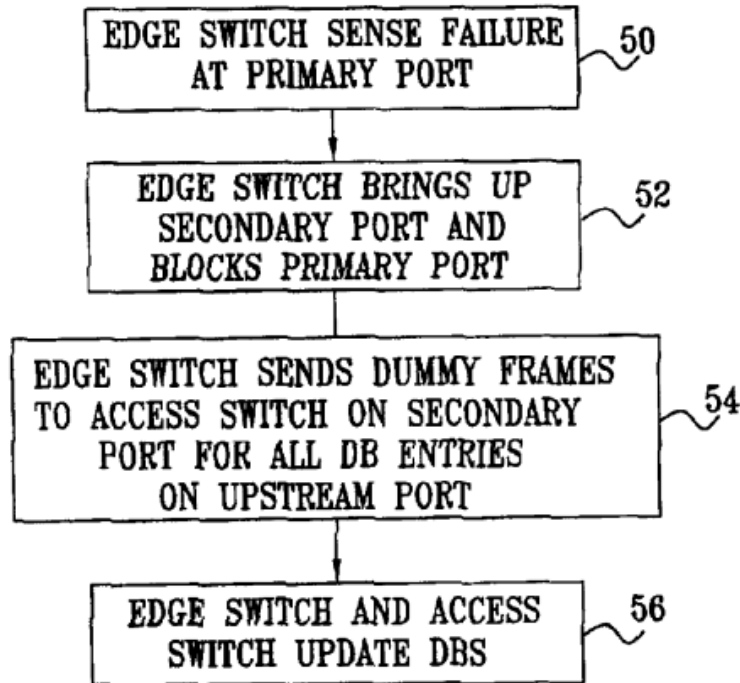
skill in the art in question at the time of the invention.” *Id.* at 1312–13. While courts may deviate from the plain and ordinary meaning in some circumstances, there is a “heavy presumption that a claim term carries its ordinary and customary meaning.” *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (internal quotations omitted). Under this “exacting” standard, any departure from a claim’s ordinary meaning must be based on language that is “so unmistakable as to be unambiguous.” *Dealertrack Inc. v. Huber*, 674 F.3d 1315, 1322 (Fed. Cir. 2012) (citations omitted).

Here, at this stage in the proceeding, Patent Owner will apply the ordinary and customary meaning to the ’986 patent’s claim terms.

III. Overview of the ’986 Patent

The ’986 patent discloses “methods and devices for providing reliable, fault-resistant network access.” EX1001, 1:7–8. The ’986 patent discloses techniques to rapidly recover from network failures while maintaining compatibility with existing network equipment and protocols. *Id.* at 3:58–60. For example, Figure 3 of the ’986 patent is reproduced below.

FIG. 3



EX1001, Figure 3.

Figure 3 of the '986 patent illustrates an exemplary method to respond to a network failure. An edge switch may first sense a failure in its active primary port. *See id.*, Figure 3. In response, the edge switch blocks the primary port and activates a previously-disabled secondary port. *Id.* In order to shorten communication delays when updating database entries, the edge switch sends dummy frames downstream to the access switch. *Id.*, 9:42–44. The access switch may then update its filtering database based on the received dummy frames to reflect the change in active links. *Id.*, 9:62–65.

IV. Arguments

Petitioner challenges claims 1-2, 4-7, 9-14, 16-19, and 21-24. Petitioner challenges independent claims 1, 12, 13, and 24 with Grounds 1A and 1B. Independent claims 1 and 12 are reproduced below. For purposes of this Patent Owner Preliminary Response, independent claims 1 and 12 are representative of system claims 13 and 24, respectively.

[1pre] A method for network communication, comprising:

[1a] coupling an edge switch in a network to one or more access switches via at least first and second redundant links, respectively connected to first and second ports of the edge switch;

[1b] placing the first port in an active state, while placing the second port in a blocking state;

[1c] conveying communication traffic over the first link while the first port is in the active state, thereby causing each of the switches to build a respective database for use in forwarding the traffic;

[1d] responsive to a failure associated with the first link, placing the second port in the active state and the first port in the blocking state; and

[1e] sending dummy traffic from the edge switch over the second link to the one or more access switches, so as to cause each of the one or more access switches

to modify its respective database responsive to the second port being in the active state.

[12pre] A method for network communication, comprising:

[12a] coupling a first bridge in a network to a second bridge located downstream of the first bridge, by connecting at least first and second redundant links to respective first and second ports of the first bridge so as to communicate with the second bridge;

[12b] placing the first port in an active state, while placing the second port in a blocking state;

[12c] conveying communication traffic over the first link while the first port is in the active state, thereby causing the bridges to build respective databases for use in forwarding the traffic;

[12d] responsive to a failure associated with the first link, placing the second port in the active state and the first port in the blocking state; and

[12e] sending dummy traffic from the first bridge over the second link downstream to the second bridge, so as to cause the second bridge to modify its database responsive to the second port being in the active state.

As demonstrated below, Grounds 1A and 1B of the Petition fail to teach claim limitations 1e, 12e, 13f, and 24e. Thus, Grounds 1A and 1B do not support institution because they fail to establish a reasonable likelihood that Petitioner would

prevail in showing the unpatentability of the '986 patent's independent claims, and therefore also the claims which depend therefrom. Furthermore, the Board should exercise its discretion to deny institution under 35 U.S.C. 325(d) and 35 U.S.C. § 314(a). Accordingly, the Board should deny institution.

A. Ground 1A should be denied because *Gai* fails to teach sending dummy traffic “from the first bridge over the second link downstream to the second bridge” (claim limitation 12e, 24e)

Petitioner argues that *Gai* discloses and/or renders obvious limitations 12e and 24e. Petition at 39. First, and importantly, Petitioner admits that the '986 patent explicitly states that *Gai* discloses transmitting messages upstream. *See id.* at 39 (“While the admission is explicitly directed to upstream transmission of dummy messages ...”). In fact, Petitioner spends pages discussing how *Gai* discloses transmitting dummy multicast messages *upstream* towards the root rather than downstream. *See id.* at 39-41. Despite this, Petitioner argues that *Gai* teaches or renders obvious the transmission of dummy traffic from the edge switch/first bridge downstream to the access switch/second bridge. *Id.* Specifically, Petitioner argues that a POSITA would have understood that failure can happen at any port or link and that, as a result, that failure can happen on a port that transmits packets downstream. *Id.* at 41 (“However, a POSITA would have understood that a failure can happen at any port or link. For example, failure can occur at a ‘designated’ port, i.e., a port that transmits packets downstream.”).

Petitioner does not cite to any passage in *Gai* that supports this understanding. Instead, Petitioner cites to passages from a number of unrelated patents that do not discuss why a POSITA would understand that dummy traffic may be sent downstream over the second link in *Gai*. See Petition at 41. For example, the Petition’s citation to *Burns* merely confirms that a port may fail for various reasons. See *id.* (citing to EX1012, 2:56–59 (“A signalling link or port may fail for various reasons, including a software defect, an equipment failure in the call control infrastructure or a failure in the transmission link.”)). Similarly, the Petition’s citation to *Detampel* states that a bridge status memory file is updated whenever a port fails. *Id.* (citing to EX1013, 16:59–60 (“[The] bridge status memory file is updated whenever any ports in any of said plurality of bridge servers fails.”)). None of these citations indicate that *Gai* discloses transmitting dummy traffic downstream. Petitioner also cites to the declaration of its expert Henry H. Houh, but the expert declaration merely repeats the assertions and citations present in the Petition without providing any clarifying or additional explanations. See EX1003, ¶ 103.

Petitioner also points to a modified version of *Gai* Figure 1 in an attempt to show that dummy packets may be transmitted from an edge switch/first bridge downstream to an access switch/second bridge. See Petition at 42. The annotated figure is reproduced below:

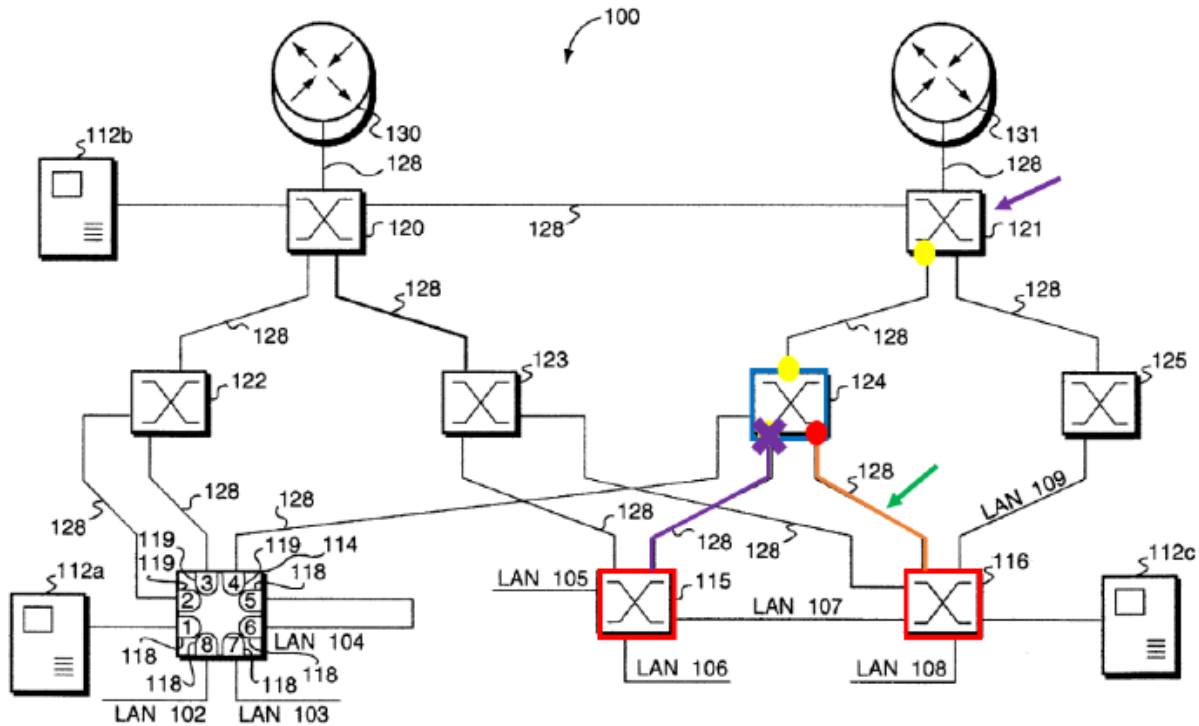


FIG. 1

Petition at 42.

In its Petition, and as shown in this Figure, Petitioner appears to equate backbone switch 124 as the first bridge and at least access switch 116 as the second bridge according to the Petition's color coding. *See id.* at 41–42. However, Petitioner's analysis of the modified Figure 1 does not align with *Gai*'s own description of Figure 1. For example, Petitioner states that switch 124 “would start transmitting dummy messages, e.g., a dummy message to access switches 116 and 115 (in that order) through the new forwarding port (indicated by the red dot) over link 128.” Petition at 42. However, *Gai* itself never describes backbone switch 124

in such a way. What *Gai* does disclose is distributing a multicast message through all of its forwarding ports. But, in doing so, *Gai* clearly explains that such an action is in response to a port failure in access switch 114, not in switch 124. See EX1005, 13:14-49. For purposes of illustration, Patent Owner includes annotations to Petitioner's modified figure below.

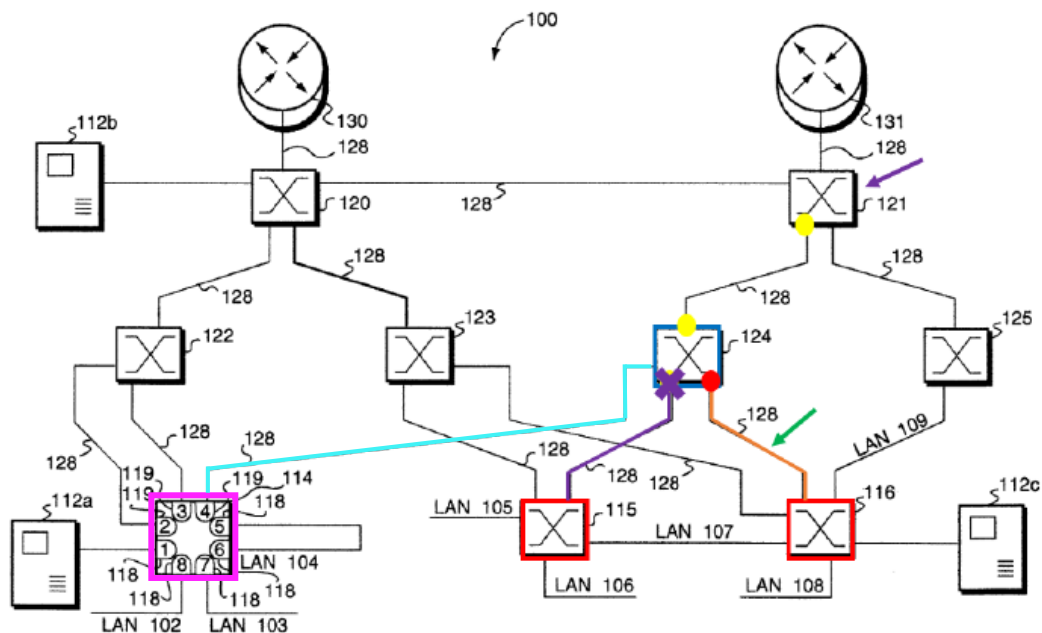


FIG. 1

Id., Figure 1 (annotated).

Gai notes that the transition from an initial root port to a backup root port at access switch 114 (marked in pink) may cause entities to appear to move relative to other devices. *Id.*, 12:56–59. As a result, the identity of the new root port on access switch 114 must be propagated to other devices, such as access switches 115 and 116. *Id.*, 12:59–62. *Gai* is clear that access switch 115 does not receive

transmissions from backbone switch 124 in response to a failure of a port on switch 124. Rather, *Gai* explains that backbone switch 124 receives a multicast message from switch 114 (marked in pink) via link 128 (marked in teal) and “distributes the multicast message 400 through all of its forwarding ports so that other devices, as necessary, may learn of the new forwarding port (i.e., port number four) at access switch 114.”). *Id.*, 13:45–49. As shown in Petitioner’s modifications to Figure 1, Petitioner attempts to argue that backbone switch 124 transmits a message downstream to access switches 115 and 116 in response to a port failure in backbone switch 124. The scenario represented by Petitioner’s modified Figure 1 therefore runs contrary to *Gai*’s description and represents an attempt by Petitioner to advance an argument by ignoring *Gai*’s actual teachings.

Accordingly, the Petition fails to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of independent claims 12 and 24.

B. Ground 1A should also be denied because *Gai* fails to teach “sending dummy traffic from the edge switch over the second link to the one or more access switches” (claim limitation 1e) and “send dummy traffic through the second access port over the second link to the one or more access switches” (claim limitation 13f)

Petitioner argues that *Gai* discloses sending dummy traffic from the edge switch to the one or more access switches. Petition at 39. The ’986 patent defines edge switches as “[c]ore switches that are directly connected to access switches.”

EX1001, 1:35–37. The '986 patent further defines an access switch as a switch with “ports that connect to LANs and/or to other network endpoints, such as user computer systems.” EX1001, 1:30–32.

Petitioner notes that *Gai* discloses an example where switch 114 transmits packets upstream to switch 122 towards the root switch 121. *Id.* at 39-41 (“*Gai* discloses one specific example of a failure associated with port 3 (marked with purple X) of switch 114 that transmits packets towards the root (upstream) through the newly activated port 2 (red dot).”). Petitioner provides modified Figure 1 (reproduced below) in support of its argument.

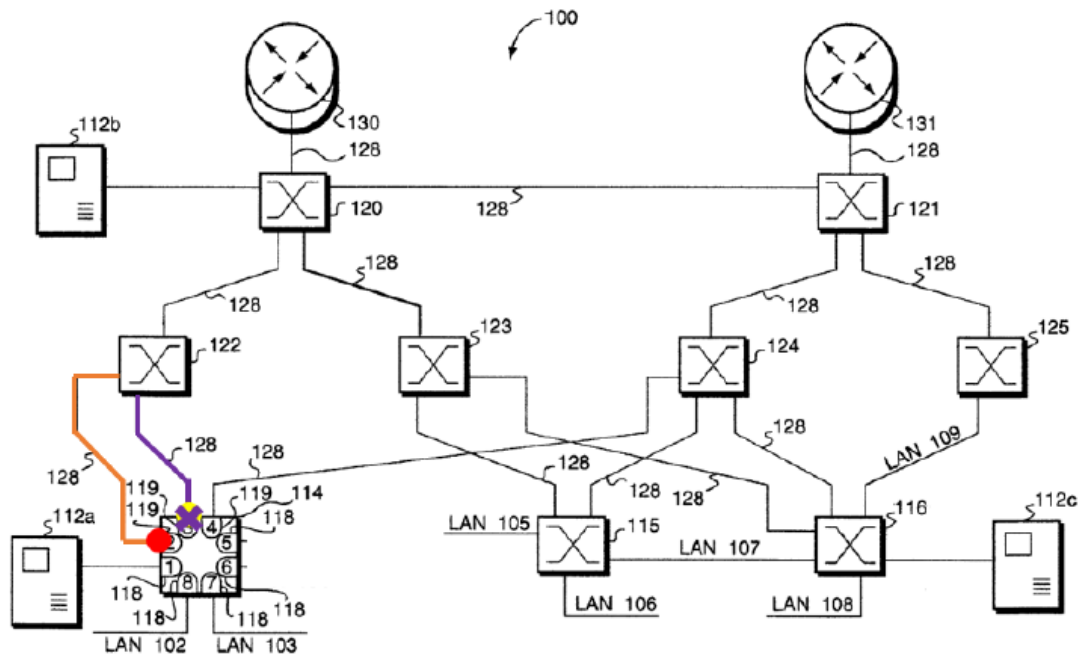


FIG. 1

Petition at 40.

By noting that switch 114 transmits packets upstream through port 2, Petitioner appears to equate switch 114 as an edge switch because it transmits messages through port 2 upstream towards switch 122. Petitioner also appears to equate switch 122 as an access switch because it receives a transmission from switch 114.

But the cited example in *Gai* does not disclose sending dummy traffic from the edge switch to the one or more access switches because *Gai*'s switch 114 may not be considered an edge switch within the meaning of the '986 patent. Rather, switch 114 of *Gai* Figure 1 is an access switch within the meaning of the '986 patent because switch 114 has ports that connect to multiple LANs (e.g., LANs 102 on port 8 and LAN 103 on port 7). *See* EX1005, Fig. 1. Furthermore, *Gai* itself refers to switch 114 as an access switch. *See, e.g., id.* at 7:8-10 ("Access switches 114-116 are interconnected with each other through a plurality of backbone switches 120-125.").

Additionally, *Gai*'s switch 122 may not be considered an access switch within the meaning of the '986 patent. *Gai* plainly classifies switch 122 as a backbone switch and not an access switch. *See, e.g.,* EX1005, 11:41 ("With reference to switch 114, for example, assume that port number three, which is coupled to backbone switch 122, is the root port for switch 114 and thus in the forwarding state."). Therefore, Petitioner's cited example also fails to transmit traffic to an access switch.

Nonetheless, Petitioner argues that a POSITA would have understood that *Gai* discloses transmitting traffic from an edge switch to an access switch because a POSITA would have understood that failure can happen in any port or link. Petition at 41. However, as discussed above in Section IV.A, Petitioner’s assertion is not supported by the disclosure of *Gai* or Petitioner’s expert declaration. *See supra* Section IV.A.

Patent Owner acknowledges that an edge switch is not required by the limitations of claim 13. *See generally*, ’986 patent, claim 13. However, claim 13 still requires sending dummy traffic to one or more access switches. *See id.*, claim 13 (“send dummy traffic through the second access port over the second link to the one or more access switches.”). As discussed above, Petitioner treats Gai switch 122 as an access switch. However, switch 122 is not an access switch because it does not contain ports that connect to LANs and/or to other network endpoints (e.g., user computer systems). Switch 122 is also not an access switch because Gai itself characterizes switch 122 as a backbone switch instead of an access switch. EX1005, 11:41 (“With reference to switch 114, for example, assume that port number three, which is coupled to ***backbone switch 122***, is the root port for switch 114 and thus in the forwarding state.”) (emphasis added).

Accordingly, the Petition fails to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of independent claims 1 and 13.

C. Ground 1B should also be denied because *Gai* fails to teach sending dummy traffic “from the first bridge over the second link downstream to the second bridge” (claim limitation 12e, 24e)

As an initial matter, Patent Owner notes that Ground 1B uses the exact same art as Ground 1A. As discussed in connection with Section IV.A, *Gai* does not disclose sending dummy traffic from the first bridge over the second link downstream to the second bridge. *See supra* Section IV.A. To the extent that Petitioner provides additional arguments, Patent Owner addresses them below.

Petitioner states that *Gai* renders obvious downstream transmission of dummy messages. Petition at 81. Specifically, the Petition states that *Gai*’s access switch 114 may transition from initial root port number three to a backup root port and then propagate the identity of the new root port to other devices, such as access switch 115-116. *See* Petition at 81–82; *see also* EX1005, 12:56-62. Petitioner appears to argue that *Gai* discloses this limitation because access switch 114 can propagate the identity of its new root port to access switch 115.

However, the cited example does not actually disclose sending dummy traffic from the first bridge over the second link downstream to the second bridge. Rather, *Gai* clearly states that access switch 114 directly transmits a multicast message to an

entity that is directly coupled to it, such as backbone switch 124. EX1005, 13:20–24 (“Multicast message 400, having the address of server 112a loaded in SA field 412, is then forwarded through the new root port (i.e., port number four) of switch 114. Multicast message 400 is first received at backbone switch 124 which examines its contents.”); *see also id.*, 13:50-53 (“Rapid reconfiguration entity 234 similarly generates one or more separate multicast messages 400 for each remaining entity directly coupled to access switch 114 (i.e., entities or end stations on LANs 102-104).”). As a result, *Gai* discloses that access switch 114 transmits traffic upstream towards backbone switch 124 instead of downstream.

Additionally, even though access switch 115 may eventually receive traffic, it is backbone switch 124 that transmits the multicast message to access switch 115. *Id.*, 13:45–49 (“Backbone switch 124 distributes the multicast message 400 through all of its forwarding ports so that other devices, as necessary, may learn of the new forwarding port (i.e., port number four) at access switch 114.”). Therefore, *Gai* does not disclose sending dummy traffic from the first bridge (e.g., *Gai*’s access switch 114) over the second link downstream to the second bridge (e.g., *Gai*’s access switch 115).

Petitioner also argues that Figure 1 of *Gai* renders obvious the downstream transmission of dummy traffic. *See* Petition at 85–86. Specifically, Petitioner relies on modified versions of *Gai* Figure 1, reproduced below:

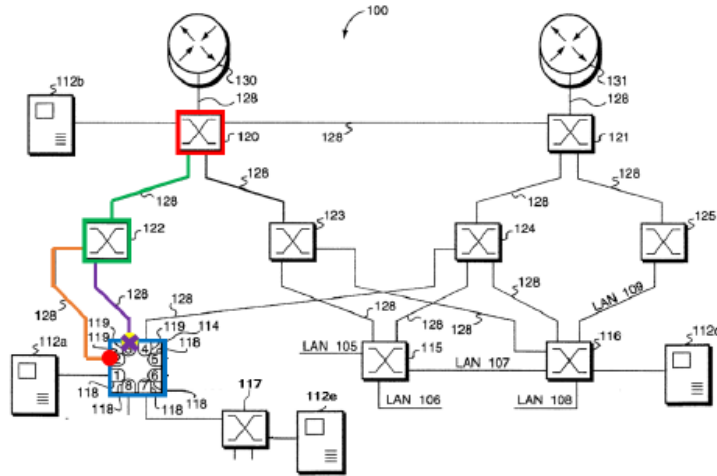


FIG. 1

EX1005, Figure 1 (modified).

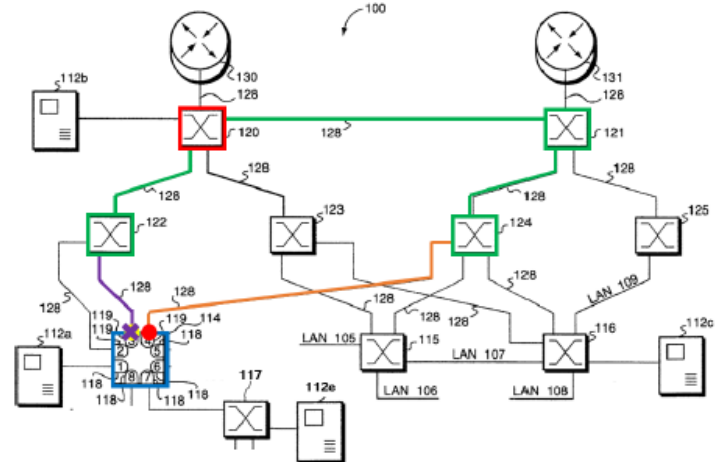


FIG. 1

EX1005, Figure 1 (modified). EX1003, ¶190.

Petition at 86.

The modified versions of *Gai* Figure 1 display a configuration where the newly-added switch 117 is considered the root. Petitioner asserts that any switch could be the root switch and that “it would have been obvious that first bridge 114 would send dummy traffic downstream through the new active ports (indicated by the red dot) over link 128, away from the root switch and towards second bridge

120, if switch 117 was the root, because, e.g., it was the switch with the lowest switch identifier.” *Id.* at 85. Petitioner’s argument is not supported by *Gai* at all.

First, Petitioner relies on fabricated versions of *Gai* Figure 1 that significantly change the appearance of the original figure. For example, original *Gai* Figure 1 shows that access switch 114 is connected to LAN 102 and LAN 103 via port 8 and port 7, respectively. EX1005, Figure 1. By contrast, Petitioner’s modified figures completely delete LAN 102 and LAN 103 and include a new access switch 117 that is now connected to switch 114 via port 7. *Compare* EX1005, Figure 1 *with* Petition at 86.

Second, *Gai*’s teachings suggest that Petitioner’s modifications would actually create an inefficient and poorly-optimized network. *Gai* teaches that the location of the root switch is important because it affects the overall performance of the network when transmitting messages. EX1005, 3:17–19 (“Depending on the configuration of a given network, the location of the root can significantly affect the distance that messages must travel.”). *Gai* further discloses that “[t]o reduce the average distance and avoid partitioning of the backbone switches, it is desirable to locate the root at a backbone switch.” *Id.*, 3:29–31. Although it is technically possible to use an access switch as the root, *Gai* clearly cautions against this. *Id.*, 3:23–29 (“If the root is located at an access switch and the principal server utilized by the end stations (i.e., clients) is coupled to a backbone switch, the average

distance between end stations and the primary server may be quite high, resulting in inefficient network operation. In addition, the backbone switches may become partitioned as ports between them are blocked.”).

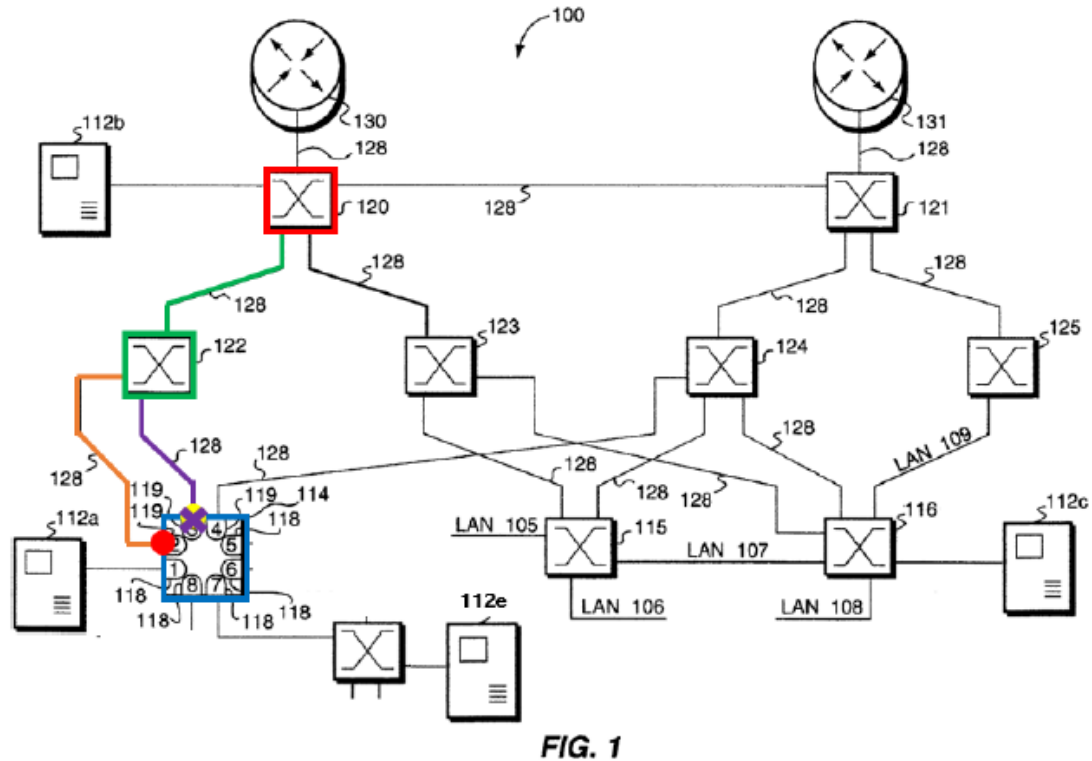
The Petition repeatedly refers to switch 117 as an access switch when describing the various modified versions of *Gai* Figure 1. *See, e.g.*, Petition at 70 (“In this exemplary network, switch 114 is both an access switch and an edge switch, because it is a core switch (a switch that interconnect access switches 115-117, 120, and 125 into a WAN, e.g., by direct connection between core switch 114 and access switch 117) that is directly connected to an access switch (switch 117).”); *id.* at 71 (“[S]witch 114 is directly connected to access switch 117.”); *id.* at 89 (“Switch 117 is shown as an access switch in modified Figure 1 above, but a POSITA would have understood that switch 117 would satisfy a ‘core’ switch, if, for example, one of its ports was connected to another switch.”). Petitioner’s modified figures therefore use access switch 117 as the root. A POSITA would understand, simply by reading *Gai*, that Petitioner’s modifications would actually worsen the performance of network 100. *See* EX1005, 3:23–29. Therefore, a POSITA would not find that *Gai* renders obvious claim limitations 12[e] and 24[c]. Rather, a POSITA would understand that *Gai* actually teaches away from using the exact modifications that Petitioner proposes.

Accordingly, Ground 1B fails to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of independent claims 12 and 24.

D. Ground 1B should also be denied because *Gai* fails to teach “sending dummy traffic from the edge switch over the second link to the one or more access switches” (claim limitation 1e) and “and “send dummy traffic through the second access port over the second link to the one or more access switches” (claim limitation 13f)

Again, Patent Owner notes that Ground 1B uses the exact same art as Ground 1A. As explained in Section IV.B, *Gai* does not disclose sending dummy traffic from the edge switch or to the one or more access switches. *See supra* Section IV.B.

Petitioner’s reliance on an upstream embodiment of *Gai* Figure 1 does not overcome the deficiencies in Petitioner’s arguments as discussed in Section IV.B. Modified Figure 1 of *Gai* is reproduced below:



Petition at 83.

Even though Figure 1 has been modified so that switch 114 could be considered an edge switch, the modified figure still fails to disclose sending traffic to an access switch because switch 120 is still a backbone switch. *Gai* clearly defines switch 120 as a backbone switch in the description of *Gai*'s original Figure 1. *See, e.g.,* EX1005, 7:8-10 ("Access switches 114-116 are interconnected with each other through a plurality of backbone switches 120-125."). Furthermore, switch 120 is not connected to any user endpoints or LANs even in the modified figure. As a result, switch 120 is not considered an access switch within the meaning of the '986 patent. Although Petitioner asserts that switch 120 is an access switch in the modified figure,

there is no modification to switch 120 itself to justify such a label. Additionally, Petitioner's label is not supported by *Gai*'s disclosure and runs contrary to the '986 patent's description of an access point. Therefore, even in the modified figure, *Gai* does not disclose transmitting dummy traffic to the one or more access points.

Accordingly, Ground 1B fails to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of independent claims 1 and 13.

E. The Board should use its discretion and deny institution under the *Fintiv* factors

Efficiency, fairness, integrity of the system, and the merits support the Board's exercise of its discretionary denial authority under 35 U.S.C. § 314(a). Seeking to minimize duplication of work, the Board has set forth a set of nonexclusive factors for determining whether to deny a petition in view of parallel litigation (i.e., the "*Fintiv* factors"). See *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper No. 11 (P.T.A. B. March 20, 2020) ("*Fintiv P*"). As explained in detail below, the *Fintiv* factors weigh heavily in favor of discretionary denial in this case.

1. Fintiv Factor 1: The district courts have not granted a stay

Patent Owner agrees with Petitioner that this factor is neutral because no motion to stay has been granted, so the Board should not infer the outcome of such a motion. *Sand Revolution II LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper No. 24 at 7 (P.T.A.B. June 16, 2020) (informative).

2. Fintiv Factor 2: The Cisco trial is expected to take place approximately two months before the projected statutory deadline for a final written decision

Fintiv factor 2 weighs heavily against institution because trial is set to occur approximately 2 months before the projected statutory deadline for a final written decision. The projected statutory deadline for a final written decision in this IPR is around August 2025. Jury selection for the Cisco trial is currently scheduled for June 2, 2025. Thus, the district court trial is set to occur approximately 2 months before the projected statutory deadline for a final written decision. This weighs heavily against institution. *See Fintiv I*, IPR2020-00019, Paper No. 11 at 9 (“If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under NHK.”).

Petitioner argues that *Fintiv* factor 2 weighs marginally in favor of not exercising discretion to deny institution because the scheduled trial date is less than five months before the final written decision deadline. *See* Petition at 97–98 (citing *Sand*). However, Petitioner’s reliance on *Sand* is misplaced. The district court proceeding in *Sand* was not in the Eastern District of Texas, and the circumstances of that litigation were entirely different from the circumstances in this case. *Sand Revolution II LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 3 (June 16, 2020) (informative). In the parallel district court

proceeding in *Sand*, the parties and the court updated the scheduling order several times on request by the parties. *Id.* at 8-9. Moreover, the *Sand* case had taken place during the very early days of the COVID-19 pandemic, and the Board recognized that disruptions from the pandemic made the trial date in the district court litigation uncertain. *Id.* No such uncertainty exists here. Thus, this factor weighs in favor of discretionary denial

3. Fintiv Factor 3: The parties will have invested significant resources in at least the Cisco trial

Fintiv factor 3, which considers the resources invested in the parallel district court proceeding, weighs in favor of the Board's exercising its discretionary denial authority. Petitioner appears to wrongly limit its analysis of the parties' investment in the district court proceedings to the stage of those proceedings at the time the petition was filed. Petition at 98. However, *Fintiv* dictates that the proper timeframe for this factor is the investment in the parallel proceeding at the time of the institution decision. *Fintiv I*, IPR2020-00019, Paper No. 11 at 9–10. The institution decision in this proceeding is expected by August 29, 2024.

By August 29, 2024, the parties will have expended significant resources in the district court proceeding. The parties have already exchanged infringement and invalidity contentions for the '986 patent. Fact discovery has already begun under the district court's schedule and will conclude January 6, 2025, approximately four months after the institution decision is projected to be issued in this case.

Furthermore, the parties will have to begin the claim construction process and exchange preliminary claim constructions by August 31, 2024, only two days after the expected date of the institution decision.

Accordingly, because the parties will have expended significant resources by the time the Board issues an institution decision in this case, this factor weighs against institution.

4. Fintiv Factor 4: The issues in the petition and district court proceeding significantly overlap

Fintiv factor 4 at best marginally favors not exercising discretion to deny institution because the issues in the Petition and the parallel district court proceeding overlap and while Petitioner have provided a stipulation regarding the estoppel effects of this proceeding in the district court proceeding, Petitioner have not provided a *Sotera*-style stipulation.

Fintiv Factor 4 considers the overlap between issues raised in the petition and in the parallel proceeding. *Fintiv I*, IPR2020-00019, Paper No. 11 at 6. The prior art Petitioner asserts in its petition is identical to prior art being litigated to trial in the Cisco case. In an attempt to address the redundancy of this proceeding, Petitioner provides only a limited stipulation, rather than a *Sotera*-style stipulation, stating they will not rely on the same prior art in the district court. Petition at 98. The PTAB has previously held that, at most, narrower stipulations weigh only “marginally in favor of not exercising discretion to deny institution.” *Sand Revolution II*, IPR2019-

01393, Paper No. 24 at 9–10. Accordingly, based on Petitioner’s *Sand Revolution*-style stipulation, this factor only marginally favors not exercising discretion to deny institution.

5. Fintiv Factor 5: Petitioner are defendants in the district court proceeding

Fintiv factor 5 favors denial of institution because Petitioner is a defendant in the parallel district court proceedings. *Fintiv* factor 5 considers whether the Petitioner and the defendants in the parallel proceeding are the same party. *Fintiv I*, IPR2020-00019, Paper No. 11 at 6. Petitioner are defendants in the case in which Patent Owner asserts infringement of the ’986 patent. Thus, Factor 5 weighs in favor of denial.

Petitioner argues that this factor should not be a basis for denying institution because most Petitioners in IPR proceedings are defendants in litigation. *See* Petition at 99. Petitioner’s argument is contrary to numerous Board decisions. For example, in *Nokia*, the Board unequivocally held that “Petitioner is the defendant in the parallel proceeding. Thus, this factor weighs in favor of exercising our discretion to deny the Petition.” *Nokia of America Corporation et al. v. Godo Kaisha IP Bridge I*, IPR2022-00755, Paper No. 9 at 13.

Furthermore, Petitioner’s argument that this factor should not be a basis for denying institution despite having the same parties in the parallel district court proceeding fails a simple logic test. If Petitioner’s argument were true, then this

factor could *never* favor denial. Factors by their very nature lie along a scale of: weighing in favor, being neutral, or weighing against. Petitioner would have this Board remove this factor’s ability to weigh in favor of patent owners entirely and only provide benefits to Petitioner. Such a determination is contrary to the very nature of factors, is bad public policy, and likely only a power available to the Director.

For all the reasons above, *Fintiv* factor 5 favors denial of institution.

6. Fintiv Factor 6: Petitioner’s grounds do not rise to the level of “compelling evidence of unpatentability”

Factor 6 weighs against institution because, as shown above, the merits of the petition are weak and include numerous deficiencies, which cannot meet the high compelling merits standard needed to overcome *Fintiv* factors 1–5 strongly favoring denial of institution.

To meet the standard for a compelling unpatentability challenge, the Petition must present challenges “in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Commscope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper No. 23 at 3 (P.T.A.B. Feb. 27, 2023) (citing Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation at 4. (June 21, 2022) (“Guidance Memo”).) “[T]he compelling merits standard is a higher standard than the standard for institution set by statute.”

Commscope Techs., IPR2022-01242, Paper No. 23 at 3 (citing Guidance Memo at 4–5). Under the compelling merits standard, “[a] challenge can only ‘plainly lead to a conclusion that one or more claims are unpatentable’ if it is **highly likely** that the petitioner would prevail with respect to at least one challenged claim.” *Id.* at 3–4 (quoting *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper No. 102 at 49–50 (P.T.A.B. Oct. 4, 2022) (precedential)) (emphasis added).

The compelling merits determination does not replace a *Fintiv* analysis; rather, “PTAB panels ... only consider compelling merits if they first determine[] that *Fintiv* factors 1-5 favor[] a discretionary denial.” *Commscope Techs, LLC*, IPR2022-01242, Paper No. 23 at 4 (P.T.A.B. Feb. 27, 2023). Where the Board finds compelling merits, it “must provide reasoning to explain and support its determination as to compelling merits sufficient to allow the parties to challenge that finding and sufficient to allow for review of that decision.” *Id.* at 5–6. Here, *Fintiv* Factors 1–5 plainly favor discretionary denial thus requiring Petitioner to show compelling merits, which they cannot do.

As discussed above, Petitioner’s prior art grounds contain critical deficiencies and do not demonstrate a reasonable likelihood of—let alone plainly lead to—a conclusion that at least one claim is unpatentable. *See supra* Sections [insert here].

In sum, one factor (2) weighs strongly in favor of discretionary denial and three factors (3, 5, and 6) weigh in favor of discretionary denial, whereas one factor

(1) is neutral and one factor (4) only marginally favors not exercising discretion to deny institution. Accordingly, Patent Owner respectfully requests that the Board exercise its discretion and deny institution.

F. The Board should use its discretion and deny institution under the *Advanced Bionics* framework

The Board uses a two-part framework to assess whether to exercise discretion to deny institution under 35 U.S.C. § 325(d). First, the Board considers “whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office.” Second, if either of those conditions is met, the Board considers “whether the petitioner has demonstrated that the office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (P.T.A.B. Feb. 13, 2020) (precedential). “If a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute *inter partes* review.” *Id.* at 8–9.

For the reasons discussed below, the Board should exercise its authority to deny institution under 35 U.S.C. § 325(d).

1. Petitioner advances the same or substantially the same art and arguments that were previously presented to the Patent Office

Step 1 of the Section 325(d) framework—“whether the same or substantially

the same art or arguments were presented to the Office”—is satisfied. *Advanced Bionics*, IPR2019-01469, Paper 8 at 10. Petitioner does not dispute this and acknowledges that *Gai* “was presented to the Office in an IDS (EX1002, 46) and was discussed in the background section of the ’986 Patent.” Petition at 99-100.

By relying on *Gai* in the Petition, Petitioner advances the same or substantially the same art that is either identical or cumulative to art previously presented to the Patent Office during prosecution.

2. Petitioner fails to identify any material error in the Examiner’s previous evaluation of the art and arguments

Petitioner has not satisfied Step 2 of the Section 325(d) framework—“whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics*, IPR2019-01469, Paper 8 at 10.

Petitioner asserts that “an IDS is not sufficient to satisfy *Advanced Bionics*.” Petition at 101 (citing *Becton, Dickinson*, 23). However, *Gai* was not just included in an IDS during prosecution as an afterthought. Rather, *Gai* was included and described in the specification of the ’986 patent as initially filed at the Patent Office.

Petitioner also asserts that the Examiner erred by either misapprehending or overlooking that *Gai* discloses sending dummy traffic upstream. Specifically, Petitioner notes that independent claim 1 does not require sending dummy traffic downstream and that *Gai* is clear that traffic may be sent upstream. Petition at 101.

However, as discussed in connection with Sections III.B and III.D, *Gai* fails to disclose sending dummy traffic to one or more access switches. *See supra*, Sections III.B, III.D. Accordingly, even if the scope of claim 1 covers both sending downstream and upstream data frames, *Gai*'s disclosure is still inadequate for at least the reasons discussed in Sections III.B and III.D.

Petitioner also asserts that “the Examiner either misapprehended or overlooked that *Gai* discloses and/or renders obvious sending dummy traffic downstream.” Petition at 101–02. However, as discussed in connection with Sections III.A and III.C, *Gai* fails to disclose sending dummy traffic downstream. *See supra*, Sections IIIA, IIIC.

Petitioner also asserts that additional evidence and facts about the full disclosure of *Gai* warrant reconsideration of *Gai*. Petition at 103. In support of this, Petitioner explains that Dr. Houh's analysis of the prior art has not been presented to the office and that *Gai*'s full disclosure includes more than what is included in the '986 patent background section. *Id.* However, as discussed above in connection with Sections III.A–D, *Gai* does not disclose sending dummy traffic downstream or to one or more access switches, and Dr. Houh's expert declaration does not cure these deficiencies.

Furthermore, the Board has held that an expert's declaration is not enough to warrant reconsideration of the prior art under similar circumstances. For example, the Board in *NHK Spring Co.* held that the facts and arguments presented in the declaration of Petitioner's expert did not warrant reconsideration because the declaration was substantially similar to the Petition and because the declaration was not supported with objective evidence. *NHK Spring Co., Ltd. v. Intri-Plex Technologies*, IPR2018-00752, Paper 8 at 16–17 (“Although Dr. Bogy's declaration was not before the Examiner, the declaration does not persuade us that we should reconsider Braunheim, the AAPA, or Petitioner's arguments because the declaration is substantially similar to the Petition (i.e., contains the same arguments that we find substantially overlap the Examiner's findings) and Dr. Bogy fails to support his testimony with objective evidence.”). As discussed above, Dr. Houh's expert declaration merely repeats the assertions and citations present in the Petition without providing any clarifying or additional explanations. Therefore, Dr. Houh's declaration does not warrant reconsideration of the prior art or arguments previously presented before the Office.

In sum, Petitioner advances the same or substantially same art that was previously presented during prosecution of the '986 patent and also fails to establish a material error in the Examiner's previous evaluation of the art. Accordingly, Patent

Owner respectfully requests that the Board exercise its discretion and deny institution.

V. Conclusion

As discussed above, Petitioner has failed to establish a reasonable likelihood it will prevail in showing the unpatentability of the challenged claims. Accordingly, the Board should deny institution.

Date: May 8, 2024

Respectfully submitted,

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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 5,694 words, and thus complies with the word-count limits of 37 C.F.R. § 42.24.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing PATENT OWNER'S PRELIMINARY RESPONSE was served on May 8, 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:

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