

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.
Petitioner

v.

PORTSMOUTH NETWORK CORP.
Patent Owner

IPR2024-00954
U.S. Patent No. 8,199,637

**PETITIONER'S REQUEST FOR DIRECTOR REVIEW
UNDER 37 C.F.R. § 42.75**

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Patent Trial and Appeal Board
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All emphasis has been added unless noted otherwise.

All annotations in Figures have been added unless noted otherwise.

I. INTRODUCTION

The Board abused its discretion in denying Cisco’s Petition of U.S. Patent No. 8,199,637 (the “’637 Patent”), finding it failed to show any of claims 1–25 as being obvious, by basing its decision on three separate erroneous conclusions of law. Specifically, despite the Petition’s obviousness Grounds showing that the prior art reference, as modified, meets each and every element of the ’637 Patent’s independent claims, the Board found the prior art did not teach “propagating failure information by the detecting node to each node of the other nodes of the plurality of network nodes traversed by the first set of links” or “to propagate a first message notifying all other nodes in the network that are traversed by the first set of links upon detecting the local failure.” In doing so, the Board abused its discretion in three independent ways. *First*, the Board committed legal error by carrying out an implicit claim construction to add additional limitations not found in the claims. *Second*, the Board committed legal error by ignoring that one instance of the prior art reading on the claims can nevertheless render the claim unpatentable. *Finally*, the Board committed legal error by failing to consider the prior art as modified and presented in the Petition in its obviousness analysis.

II. LEGAL STANDARD

The Director may review institution decisions for an abuse of discretion or important issues of law. Revised Interim Director Review Process § 2(B)(ii). “An

abuse of discretion is found if [a] decision: (1) is clearly unreasonable, arbitrary, or fanciful; (2) *is based on an erroneous conclusion of law*; (3) rests on clearly erroneous fact finding; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.” *Intelligent BioSys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (internal citations omitted).

Abuse of discretion based on an erroneous conclusion of law is found in numerous situations. For example, Director Review has been granted after the Board “addressed parties’ implicit claim constructions in its merits analysis.” *PLR Worldwide Sales Ltd., v. FLIP Phone Games Inc.*, IPR2024-00133, Paper 12 at 6 (Aug. 22, 2024). Director Review has also been granted when the Board misstates or misapplies the law. *See, e.g., Duration Media LLC v. Rich Media Club LLC*, IPR2023-00953, Paper 78 at 8 (Dec. 12, 2024) (vacating Board decision that conflated two separate legal analyses of enablement and obviousness). As yet another example, abuse of discretion also includes failing to adequately address arguments in the petition. *See Nokia of Am. Corp. v. Soto*, IPR2023-00680, Paper 18 (Jan. 4, 2024) (vacating decision denying institution), Paper 30 at 7, 15 (Dec. 3, 2024) (same). Specifically, relying on certain prior art embodiments instead of the ones actually presented in the Petition is legal error. *See, e.g., DK Crown Holdings Inc. v. Diogenes Ltd.*, IPR2023-00268, Paper 14 at 2, 23–24 (Feb. 21, 2024).

III. BACKGROUND

A. U.S. Patent No. 8,199,637 (the “’637 Patent”) And “Propagating Failure Information” Claim Limitation

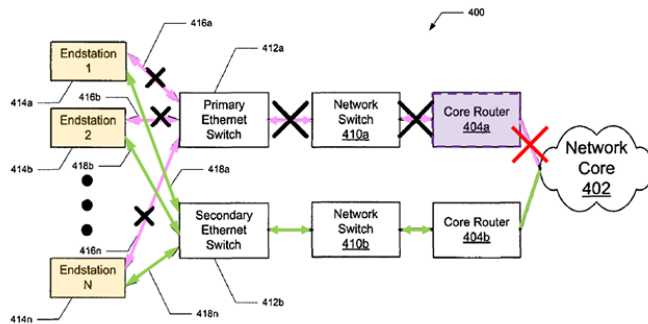
The ’637 Patent relates to “methods and systems for providing virtual private LAN services (VPLS).” EX1001, 1:18–19. For example, a “service is provided over [a] primary set of links,” but if “failure that causes loss of connectivity occurs in the primary set of links, traffic is transferred to [a] backup set.” EX1001, 4:1–4.

More specifically, “when a network node detects a local failure or other loss of connectivity in the primary topology, the node propagates this information to the other nodes.” EX1001, 4:20–22. This is reflected in independent claims 1 and 16, which recite “propagating failure information by the detecting node to each node of the other nodes of the plurality of network nodes traversed by the first set of links,” and “to propagate a first message notifying all other nodes in the network that are traversed by the first set of links upon detecting the local failure,” respectively. “Upon receiving the propagated failure information, each node deactivates the physical layers of the primary set links that are connected to the node.” *Id.*, 4:22–25. Then, a “diversion of traffic to the backup set of links” occurs. *Id.*, 4:25–28.

B. The Petition

The Petition requested *inter partes* review on multiple Grounds, including challenging the independent claims 1 and 16 as being obvious over Mitchell. As

shown below, the Petition explained that Mitchell describes performing a failover to a *set of secondary links* after a failure occurs over a *group of primary links*. Pet. at 10–11. The Petition further combined two embodiments of Mitchell to show that a **failure** may occur “anywhere in the *group of primary links*,” including between core network 402 (which is *not* a node) and the most upstream node, shown as *core router 404a*.¹ See Pet. at 20–21 (annotating EX1001, FIG. 4) (reproduced here).



As shown, in the case of a **failure** immediately upstream of the most upstream node (i.e., *core router 404a*), Mitchell’s *core router 404a* detects the failure and propagates failure information to each and every one of the remaining nodes (e.g., network switch 410a, primary ethernet switch 412a, and end stations 414a-414n), which are all downstream of the failure, to cause deactivation of all of the remaining links in the *first set of links*. Pet. at 26–28.

C. The Institution Decision

¹ This obviousness modification was based, in part, on the explicit teaching of Mitchell that failure can occur immediately downstream of the network core, such as shown with respect to “upstream network 102.” See, e.g., Pet. at 10–12.

The Board found no claims required an express construction. Paper 7 (“Dec.”) at 8–9. The Board then found Mitchell did not teach the “propagating failure information” limitation. *Id.* at 19–21.

The Board correctly found that Mitchell teaches “the propagation of failure information *from the location of the failure to the network’s edge or endpoints.*” Dec. at 19. The Board then also correctly acknowledged that “Petitioner argues that there could be a circumstance where Mitchell may be unable to preserve connectivity because the failure happened at the most upstream location.” Dec. at 21.

Although that alone should have been sufficient to find the claims obvious over Mitchell, the Board then erroneously reframed the issue by noting that “Mitchell does not disclose the propagation of failure information to *each* node in the network topology, rather, Mitchell only teaches that ‘failure information is propagated *downstream.*’” Dec. at 17 (emphasis in original) (internal citations omitted). The Board continued, contending “Petitioner has not provided a sufficient explanation to establish that one of ordinary skill in the art would have found it obvious *to extend Mitchell’s downstream-only propagation* to instead include the recited propagation and receipt of failure information to and by each and all nodes.” *Id.* at 19–20. In other words, the Board erroneously injected an additional requirement, not explicitly recited in the claims, by finding that “Petitioner does not assert that one of ordinary skill in the art would have understood Mitchell’s

disclosures to *teach any interaction with the upstream nodes* that would inform those nodes of a failure.” *Id.* at 20.

IV. ARGUMENT

The Board abused its direction in denying institution by (1) carrying out an implicit claim construction to import an additional limitation not recited in the claims; (2) committing legal error by applying the wrong legal standard for invalidity, finding the modified teachings of Mitchell read on the claims in one instance, but requiring more to demonstrate obviousness; and/or (3) committing legal error by failing to consider the combined embodiments of Mitchell, as modified and presented in the Petition in its obviousness analysis.

A. The Board Legally Erred And Abused Its Discretion By Improperly Engaging In Implicit Claim Construction

Without explicitly carrying out a claim construction analysis, the Board abused its discretion by improperly engaging in claim construction and implicitly adding limitations to the claims. *See e.g., PLR Worldwide*, IPR2024-00133, Paper 12 at 7 (finding abuse of discretion and granting director review where Board did not expressly construe any claim terms but implicitly added limitations). Even though the Board stated it provided the claim terms with their ordinary and customary meaning, it added a limitation found nowhere in the claims’ plain language. Specifically, the Board required that Mitchell further teach or render

obvious “*interaction with the upstream nodes* that would inform those nodes of a failure,” even though the claims were drafted broadly to encompass situations in which the failure detecting node is the most upstream node so that failure information can only propagate downstream. Dec. at 19–20.

Indeed, not only is the term “*upstream node*” not present in the claims, but it is not even found in the specification. The Director has instructed that “the Board should not import limitations into the claims from the extrinsic evidence that are narrower than the Specification’s own requirements, or lack thereof.” *Samsung Elecs. Co. v. Slyde Analytics, LLC*, IPR2024-00040, Paper 14 (granting Director Review) at 11 (Aug. 2, 2024). Here, the Board should not have required propagation of failure information to upstream nodes either.

Moreover, the Board provided no explanation as to why it reads the ’637 Patent to require failure propagation upstream other than opining that “all nodes” necessarily includes both upstream and downstream nodes. *See* Dec. at 19–20. If the Board wanted to construe the claims, they should have “first assess[ed] the intrinsic evidence, and then consult[ed] extrinsic evidence if necessary.” *PLR Worldwide*, IPR2024-00133, Paper 12 at 7 (citing *Samsung Elecs.*, IPR2024-00040, Paper 14 at 7–8 (discussing *Phillips* framework)). But, the Board legally erred by failing to provide any such explanation. *See Straight Path IP Grp., Inc. v. Sipnet EU S.R.O.*, 806 F.3d 1356, 1361–62 (Fed. Cir. 2015) (overturning Board decision

that construed a term to contradict the plain meaning because “[t]he Board did not rely on any other basis for its construction”). Indeed, the Board would not have been able to do so because “redefinition or disavowal is required” when deviating from plain language. *Straight Path*, 806 F.3d at 1361.

Accordingly, the Board legally erred and abused its discretion by carrying out an implicit claim construction to add in limitations that are not present in the claims.

B. The Board Legally Erred And Abused Its Discretion By Applying The Wrong Legal Standard For Obviousness In Determining The Scope Of The Claims And The Prior Art Necessary To Render Obvious The Claims

The Board also abused its discretion by applying the wrong legal standard by ignoring the situation in which Mitchell, in one instance, reads on the claims—even though it may not read on the claims all the time. *See Target Corp. v. Proxicom Wireless, LLC*, 2023 WL 6135787 at *4 (Fed. Cir. 2023) (vacating Board decision after Petitioner argued that the Board “applied the wrong legal standard, causing the Board to improperly reject prior art disclosures that meet the relevant claim limitations some of the time, but not all of the time”); *see also Neocrine Biosciences, Inc. v. Spruce Biosciences, Inc.*, PGR2021-00088, Paper 16 at 12 (Aug. 4, 2023) (vacating Board decision as contrary to Federal Circuit precedent).

The Petition demonstrated one instance that exactly meets the plain language of the claim, which is all that is required under the law to find the claims obvious.

As shown in annotated Figure 4 above, the most upstream node (*i.e.*, **core router 404a**) detects a **failure** and propagates a failure information to each and every one of the other nodes (*i.e.*, network switch 410a, primary ethernet switch 412a, and end stations 414a-n) in the **first set of links**. *See, e.g.*, Dec. at 15–16 (discussing Pet. at 24–25). It is undisputed that Mitchell’s system will propagate failure information from the point of failure to each and every one of the remaining nodes in the **first set of links**. *See id.* The fact that every one of the remaining nodes happen to be downstream is immaterial to the claims. The Petition shows one instance, where Mitchell discloses or suggests the most upstream “**detecting node**” will propagate failure to “each” or “all nodes” in a **first set of links**, thus rendering obvious claims 1 and 16.

The Board acknowledged the potential that “Mitchell may be *unable to preserve connectivity* because the failure happened at the most upstream location,” thereby acknowledging all of the remaining nodes, which happen to be all downstream, would necessarily be notified of failure and links subsequently deactivated. Dec. at 21; *see id. at 19* (acknowledging “a circumstance where the failure occurs far upstream”). However, the Board deemed that one instance “not sufficient” to invalidate the claims because Mitchell does not teach “interaction with the upstream nodes.” Dec. at 20–21; *see also id. at 20* (“Mitchell sets out to preserve upstream links *and the existence of a case that Petitioner argues has no upstream*

links with connectivity that may be preserved does not teach a system that sets out to disrupt all links.”). But in the situation where the failure happens at the most upstream location, as the Petition presents, there are **no** upstream nodes to propagate the failure information to.²

As such, the Board improperly required Mitchell to disclose more than is required to invalidate a claim. Contrary to the Board’s findings that the case in which Mitchell “has no upstream links with connectivity that may be preserved does not teach a system that sets out to disrupt all links,” (Dec. at 19–21) Mitchell need not disrupt all links in all circumstances, nor “set out” to disrupt all links.

Indeed, the Federal Circuit has explicitly held that “[j]ust as an accused product that sometimes, but not always, embodies a claimed method nonetheless infringes, [] prior art [] that sometimes, but not always, embodies a claimed method nonetheless teaches that aspect of the invention.” *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1326 (Fed. Cir. 2003) (internal citations omitted). In *Mustek*, the Federal Circuit rejected arguments that the prior art could not meet the claim element that one image scan corresponds to another because the “second scan

² To be clear, network core 402 is **not** a node. Neither the Petition, the Patent Owner Preliminary Response, nor the Decision identifies network core 402 as a node. Hence, propagation of the failure information to network core 402 is **not** required.

image does not always ‘correspond’ to the selected portion.” *Id.* The Court explained that even though the prior art only read on the claims-at-issue in one setting, the patent owner’s “argument that the image does not *always* correspond, however, is misplaced.” *Id.* (emphasis in original). Thus, the Board’s finding that Mitchell does not render the ’637 Patent claims obvious because it does not always propagate failure information to all nodes is similarly misplaced.

The Federal Circuit has also found prior art invalidating even when it only reads on the claim by chance, holding that “combinations of prior art that *sometimes* meet the claim elements are sufficient to show obviousness.” *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1003 (Fed. Cir. 2016). The *Google* claims required ‘farther-over-nearer ordering,’ which prioritized service providers farther away from a mobile over providers nearer in distance. *Id.* at 998. The Federal Circuit found that the prior art, which taught a prioritization scheme based on an alphabetical ordering, which will “often result in locations that are farther away being given a higher priority than locations that are nearer,” invalidated the claim, because “it is enough that the combination would sometimes perform all the method steps.” *Id.* at 1002. Thus, regardless of whether Mitchell’s downstream propagation always results in propagating failures to all nodes in the first set of links, the fact that as modified Mitchell would sometimes meet all the claim elements is enough. *See id.*; *see also Target Corp.*, 2023 WL 6135787 at *5 (finding the Board legally erred by

upholding claims when prior art disclosed all claim limitations in a particular situation at least some of the time).

That there might be other embodiments of the '637 Patent claims not rendered obvious by Mitchell is irrelevant. “[T]o prove that a claim covering multiple alternative embodiments is invalid, a defendant need only prove that one of the embodiments is invalid.” *Hospira, Inc. v. Fresenius Kabi USA, LLC*, 946 F.3d 1322, 1327 (Fed. Cir. 2020). That is so even when there might be other embodiments of the claims that Mitchell does not disclose, because it is a “long-established rule that ‘claims which are broad enough to read on obvious subject matter are unpatentable even though they also read on nonobvious subject matter.’” *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1281 (Fed. Cir. 2015), *aff’d sub nom. Cuozzo Speed Techs. v. Com. for Intell. Prop.*, 579 U.S. 261 (2016).

Thus, the Board legally erred and abused its discretion by requiring Mitchell to propagate the failure information to all nodes in more than one way.

C. The Board Abused Its Discretion By Failing To Consider The Combined Embodiments of Mitchell As Modified And Presented In the Petition

The Board also abused its discretion by failing to consider Mitchell, as modified and presented in the Petition. *See Everstar Merchandise Co. Ltd. v. Willis Electric Co., Ltd.*, 2022 WL 1089909 at *1 (Fed. Cir. 2022) (finding abuse of discretion where Board failed to consider legitimate obviousness arguments raised).

First, the Board dismissed the Petition’s modification of Mitchell to instead consider what the unmodified embodiment of Mitchell teaches or fails to teach. Despite some acknowledgment of the actual arguments presented in the Petition (Dec. at 15), the Board found Mitchell does not teach each and every claim limitation. Dec. at 16 (“Patent Owner argues, and we agree, that Mitchell does not teach the required propagation and receipt to all of the nodes in the network.”); *see also id.* at 19 (“Mitchell, in contrast, does not teach propagation to each node. . . .”); *id.* at 20 (“Mitchell sets out to preserve upstream links and the existence of a case that Petitioner argues has no upstream links with connectivity that may be preserved does not teach a system that sets out to disrupt all links.”). The Board’s conflation of Petitioner’s obviousness arguments for an anticipation analysis is evident in its incorrect summation of the relevant question, contending:

Therefore, the question before us is whether one of ordinary skill in the art *would have learned* of the recited propagation and receipt to and from ‘each node of the other nodes of the plurality of network nodes traversed by the first set of links’ from Mitchell’s downstream propagation of failure information.

Dec. at 19 (emphasis added). The Board never frames the question as whether the teachings of Mitchell, *as modified*, would have *rendered obvious* the claims.

By only considering what a POSITA would have learned from Mitchell’s teachings alone, instead of whether a POSITA would have combined the

embodiments of Mitchell to arrive at the claims as presented in the Petition, or whether the combination presented rendered the claims obvious, the Board failed to conduct a proper obviousness analysis. Just last week, the Federal Circuit reaffirmed that relying on what the original reference fails to disclose in rejecting an obviousness argument amounts to “a conflation between the relevant standards for obviousness and anticipation.” *Honeywell Int’l Inc., v. 3G Licensing, S.A.*, 2025 WL 16397 at *7 (Fed. Cir. Jan. 2, 2025). The Federal Circuit expounded that when Petitioner puts forth an obviousness theory that accounts for missing limitations in a prior art reference, “in according *any* weight to the mere fact that there is a difference in the [] reference and [claimed] patent, the Board commit[s] legal error by ‘deviating impermissibly from the invalidity theory set forth in the petition.’” *Id.* (quoting *M & K Holdings, Inc. v. Samsung Elecs. Co., Ltd.*, 985 F.3d 1376, 1385 (Fed. Cir. 2021) (emphasis in original); see also *Qualcomm Inc. v. Intel Corp.*, No. 2022-1824, 2024 WL 4258364, at *2–*3 (Fed. Cir. Sept. 23, 2024) (affirming the Board’s finding obviousness over a single reference and that a POSITA’s “necessary modifications” met the claims). Thus, the Board’s decision to deny institution was legal error because the Board relied on what Mitchell taught or failed to teach, without considering how the ***combined embodiments of Mitchell, as modified and presented in the Petition***, renders obvious the claims.

Second, in summarily dismissing Petitioner’s obviousness arguments, the Board incorrectly stated that Petitioner was required to establish it would have been obvious “to extend Mitchell’s downstream-only propagation to . . . teach any interaction with the upstream nodes that would inform those nodes of a failure.” Dec. at 19–20. The Board was wrong to start from the premise of Mitchell needing to inform upstream nodes of failure when the Petition presented the scenario with no upstream nodes. In *Galderma Labs, L.P. v. Tolmar, Inc.*, the Federal Circuit found the district court erred by analyzing whether there was motivation to deviate from a particular “commercial” embodiment in the prior art, when the challenging party had started from a different embodiment in the prior art and had presented a different obviousness analysis than that articulated by the Board. 737 F.3d 731, 737 (Fed. Cir. 2013). The Board’s Decision here follows the approach rejected in *Galderma*, as it effectively required the analysis to start from an example in Mitchell, such as the ***unmodified*** embodiment of Mitchell’s Figure 4 where failure occurred between core router 404a and network switch 410a, other than the scenario provided in the petition. The Board thus abused its discretion.

V. CONCLUSION

Petitioner respectfully requests the Director vacate the Board’s denial of institution and institute trial on all challenged claims 1–25.

Dated: January 10, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that a complete copy of the foregoing materials: Petitioner's Request for Director Review Under 37 C.F.R. § 42.75 of U.S. Patent No. 8,199,637 was caused to be served on counsel of record for Patent Owner by filing this document through P-TACTS and by sending this document via the delivery method indicated in Patent Owner's Mandatory Notices:

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