

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PALO ALTO NETWORKS, INC.,
Petitioner,

v.

BT AMERICAS INC.,
Patent Owner.

IPR2023-00889
Patent 7,895,641 B2

Before KARL D. EASTHOM, GEORGIANNA W. BRADEN, and
SCOTT RAEVSKY, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION
Denying Patent Owner's Request on Rehearing
of the Final Written Decision
37 C.F.R. § 42.71

I. INTRODUCTION

Palo Alto Networks, Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–25 (the “challenged claims”) of U.S. Patent No. 7,895,641 B2 (Ex. 1001, the “’641 patent”). Paper 2 (“Pet.”). BT Americas Inc. (“Patent Owner”) filed a Preliminary Response Paper 6 (“Prelim. Resp.”). The parties filed supplemental briefing (Papers 7, 8) to address claim construction issues prior to the Institution Decision (Paper 10, “Inst. Dec.”).

After the Institution Decision, Patent Owner filed a Response (Paper 15, “PO Resp.”), Petitioner filed a Reply (Paper 20, “Reply”), and Patent Owner filed a Sur-reply (Paper 22). After the briefing, the Board conducted an Oral Hearing and entered a Transcript thereof in the record. Paper 31 (“Tr.”).

Petitioner filed a Declaration by Dr. Jeffay in support of its Petition (Ex. 1003) and a subsequent Reply Declaration by Dr. Jeffay in support of its Reply (Ex. 1040). Patent Owner filed a Declaration by Dr. Lee in support of its Preliminary Response (Ex. 2001) and a subsequent Declaration by Dr. Lee in support of its Response (Ex. 2016).

After we determined that Petitioner demonstrated by a preponderance of evidence that challenged claims 1–25 of the ’641 patent are unpatentable in the Final Written Decision (Paper 32, “FWD”), Patent Owner filed a Request for Rehearing (Paper 33, “Rehearing Request”/“Reh’g Req.”).¹

¹ The Board granted Patent Owner’s unopposed email request to file additional pages in its Rehearing Request. Ex. 3002.

The applicable standard for a rehearing request is set forth in 37 C.F.R. § 42.71(d), which provides the following:

A party dissatisfied with a decision may file a request for rehearing, without prior authorization from the Board. The burden of showing a decision should be modified lies with the party challenging the decision. The request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, opposition, or a reply. A request for rehearing does not toll times for taking action. Any request must be filed: . . . (2) Within 30 days of the entry of a final decision or a decision not to institute a trial.

For the reasons set forth below, Patent Owner's Rehearing Request is *denied*.

II. CHALLENGED CLAIMS

Petitioner challenges claims 1–25 of the '641 patent, of which claims 1 and 18 are independent. Pet. 1; Ex. 1001, 33:25–34:63. Claims 1 and 18 are illustrative of the challenged subject matter and follow:

1. A system for operating a probe as part of a security monitoring system for a computer network, the system comprising:
 - a) a sensor coupled to collect status data from at least one monitored component of the network;
 - b) a filtering subsystem coupled to analyze status data to identify potentially security-related events represented in the status data, wherein the analysis includes filtering followed by an analysis of post-filtering residue, wherein the post-filtering residue is data neither discarded nor selected by filtering;
 - c) a communications system coupled to transmit information about the identified events to an analyst system associated with the security monitoring system;
 - d) a receiver for receiving feedback at the probe based on empirically-derived information reflecting operation of the security monitoring system; and

e) a modification control system for dynamically modifying an analysis capability of the probe during operation thereof based on the received feedback.

18. A method of operating a secure operations center as part of a security monitoring system for a customer computer network, comprising:

creating an event record for information received about an identified potentially security-related event occurring on the network, wherein the potentially security-related event is identified by filtering followed by an analysis of post-filtering residue, wherein the post-filtering residue is neither discarded nor selected by the filtering;

correlating the event record with customer information and a symptom record;

using the correlated symptom record to link the event record to problem resolution information;

consolidating the event record, correlated customer information and symptom record, and linked problem resolution assistance information into a problem ticket; and

providing the problem ticket to a security analyst console for analysis.

III. ANALYSIS

A. *Concessions and Admissions*

Patent Owner contends that during the Oral Hearing, it did not agree that “residue data ‘doesn’t get filtered’ prior to becoming residue” as indicated in the Final Written Decision. Reh’g Req. 1 (citing FWD 29; Tr. 44:21–45:1). Patent Owner argues that “the phrase ‘doesn’t get filtered’ appears nowhere in the [Transcript].” *Id.* at 2–3. Patent Owner also argues that at the cited portion of the Transcript, Patent Owner “was discussing Duvall, not the ’641 patent or claim 1.” *Id.* at 2.

Patent Owner does not allege that the Board overlooked or misapprehended anything related to the above “filtered” phrase. Rather,

Patent Owner seeks clarification to the record. *See* Reh’g Req. 6.

Accordingly, we provide clarification below.

With respect to the phrase “doesn’t get filtered,” the Board asked Patent Owner about Figure 2 of the ’641 patent on pages 40–41 of the Transcript:

JUDGE EASTHOM: So you have a negative rejection filter 2020, and so let’s say it doesn’t -- it doesn’t -- it doesn’t reject it there, so it goes through the positive filter, I guess. And the positive filter, if it does accept it, it goes down to through 2060, that line. But if it doesn’t go through the positive filter, it’s residue data, right? It goes to the right, and this slanted arrow over -- *so it never really got filtered by the positive and it never got filtered by the negative, it went right through it. Otherwise, you wouldn’t have it, right?*

MR. ROBERTS: No. I think it has to *not be rejected*. It has to not --

JUDGE EASTHOM: Right.

MR. ROBERTS: -- it has to *not be allowed*.

JUDGE EASTHOM: *If not -- by not being rejected, that means it didn’t get filtered?*

MR. ROBERTS: *It didn’t get filtered so, right. So --*

JUDGE EASTHOM: *So what’s the difference between that and what happens in Duvall?* I guess, that’s my question. I -- I just don’t see any difference. *Maybe you could explain it.*

Tr. 40:14–41:4 (emphases added).

As the colloquy above shows, Patent Owner is technically correct in that it did not agree with the phrase “doesn’t get filtered” at pages 44–45 of the Transcript, but Patent Owner did agree with a phrase that means the same thing at pages 40–41 of the Transcript, namely “[i]t didn’t get filtered.” There is no material difference between the two phrases. And contrary to Patent Owner’s arguments, the discussion and subsequent agreement is about Figure 2 of the ’641 patent (as evidenced by the above-quoted discussion about negative rejection filter 2020 and box 2060). *See* Ex. 1001,

Fig. 2. On page 44 of the Transcript, the Board essentially repeated what Patent Owner agreed to in the above-noted colloquy earlier in the Oral Hearing with respect to the '641 patent, namely “the residue . . . didn’t go through any of the filters, as far as I see.” Tr. 44:3–5.

Patent Owner also contends that “[s]imply stated, the residue data is status data that ‘survives’ positive and negative filtering operations; it is neither selected nor discarded, *it is not filtered out and it is not filtered in.*” Reh’g Req. 3 (emphasis added). We agree with this statement. It is the essence of the agreement above—the residue data “didn’t get filtered” or “doesn’t get filtered.”

Finally, even if Patent Owner did not agree as outlined above, the Final Written Decision includes separate findings regarding how the '641 patent operates. *See, e.g.*, FWD 31–32. Accordingly, whether Patent Owner agreed is not material to our ultimate finding that Duvall and the '641 patent operate in a materially similar manner as regards the residue data. *See id.*

Patent Owner also contends that “the FWD conflates the differences between the various subsets of data (i.e., selected, discarded, residue) with the original *superset* of data (i.e., the transmissions).” Reh’g Req. 5 (emphasis added). Patent Owner contends that “[t]he Board overlooks that while the subsets of selected and discarded data are necessarily different than the subset of residue data, they must still be subsets from the same original superset of status data under the prior litigation’s construction of the ‘post-filtering residue.’” *Id.* (citing FWD 14 (prior litigation’s construction), 29). Accordingly, Patent Owner maintains that “[t]he ‘post-filtering residue’ identified by Petitioner [in Duvall] is not part of that same superset of status data from which the selected/discarded subsets are produced. Rather, it is an entirely new set of transmissions.” *Id.*

Patent Owner's arguments are unavailing to show an overlooked point. That Patent Owner disagrees with the Board's findings is not a basis for granting the Rehearing Request. *See Voice Tech Corp. v. Unified Patents, LLC*, 110 F.4th 1331, 1339 (Fed. Cir. 2024) ("The language in the regulation specifying that a party identify only matters it believed the Board 'misapprehended or overlooked' is narrower in scope than the set of all matters in a Board's final decision that a party may disagree with."). At the heart of Patent Owner's disagreement is its contention that Duvall does not teach that "a single transmission is analyzed according to both processes shown in Figures 3 (direct-action filters) and 4 (deferred-action filters)." FWD 29 (quoting PO Resp. 14). The Final Written Decision specifically finds to the contrary after analyzing Duvall and comparing it to the '641 patent, summarizing as follows:

Simply put, in both the '641 patent and in Duvall, the residue data is *unfiltered* (unmatched) data and is ultimately different data than the *filtered discarded* (matched) data and *allowed* (matched) data, but the residue data is the same (i.e., *in the same message and same transmission*) when the direct action filters do not initially match it so that it becomes residue data (for later filtering/matching and/or analysis).

FWD 32 (emphases added). Finding that the residue data is in the same message and transmission in Duvall shows that it is what Patent Owner now refers to as the "same superset of status data," contrary to Patent Owner's arguments outlined above. *See* Reh'g Req. 5. In other words, the Final Written Decision finds that Duvall discloses the residue data even under Patent Owner's claim construction, contrary to Patent Owner's argument that we ignored Petitioner's district court claim construction position. *See id.* at 6; Pet. 29 ("Petitioner shows that Duvall satisfies limitation 1.b even under Patent Owner's claim interpretation").

The Final Written Decision similarly finds that the residue data is in the same “bulk of data,” i.e., “the *status data . . . is in the same bulk of data as the filtered status data*,” as follows:

[A]s Petitioner shows, like the ’641 patent’s probe, Duvall’s probe operates on residue data that the system neither discards with negative filtering nor accepts with positive filtering—i.e., status data that the probe does not actually filter with negative or positive filters (initially) *but status data that is in the same bulk of data as the filtered status data*. See Pet. 31–35; Reply 7–8 (“In other words, both direct- and deferred-action filters are searched for the same message transmitted through the Filters checked at step 102-104 data stream.” (citing Ex. 1040 ¶ 11)).

FWD 32 (emphasis added).

The Final Written Decision further analyzes Duvall’s Figures 3 and 4, per Petitioner’s showing and in light of Patent Owner’s arguments, and finds that these two figures “are part of the *same* process, which only executes *after* determining that a data stream i[s] opened.” FWD 33.

Patent Owner also disagrees with the Board’s characterization that during the Oral Hearing the Board “pressed Patent Owner as to how its disclosed filtering system in the ’641 patent differs from Duvall’s system.” Reh’g Req. 4–5 (citing FWD 30–31; Tr. 46:6–48:5). The Board started asking Patent Owner how its system is different than that of Duvall’s on page 43, line 1 of the Transcript, and this questioning continued through Patent Owner’s explanation to the end of page 48. See Tr. 43:1–7 (Board: “I still don’t understand. . . . [Duvall] seems to be very similar to what’s going on in your Figure 2?”), 44:9–10 (Board: “I’m just trying to figure out how your patent works.”), 45:1 (Board: “Can you explain to me the patching code argument on this?”), 46:12 (Board: “So you’re essentially saying in that [Duvall’s] Figure 3 sort of has a mistake in it?”).

Based on the foregoing, as indicated above, this Rehearing Decision hereinabove clarifies the record as Patent Owner requests.

B. Overall Approach

Patent Owner contends in a heading for Section II.A of the Rehearing Request as follows: “**The Overall Approach to the Claims Is Flawed.**” Reh’g Req. 6. In this section, Patent Owner argues that “[n]either claim 1 nor claim 18 includes optional language” and that “the FWD either implicitly construes certain language as being merely optional or rewrites the claim language altogether.” Reh’g Req. 6–7. Patent Owner summarizes that “even under the FWD’s broader implicit interpretation, the language of the claims is not met.” Reh’g Req. 9. It is not clear what Patent Owner references in these introductory and summary arguments. *See id.* at 6–9. The intervening pages do not show where the Board overlooked or misapprehended any claim language, including by treating it as optional or rewriting it. *See id.*

In another of its arguments, Patent Owner contends that “[c]laim 1 recites ‘a filtering subsystem coupled to analyze status data to identify potentially security-related events represented in the status data,’ and that [t]his ‘coupled to’ language is different from the language that some courts have found to involve reasonable capability.” Reh’g Req. 7 (citing *ParkerVision, Inc. v. Qualcomm Inc.*, 903 F.3d 1354, 1361-62 (Fed. Cir. 2018) (surveying cases)). Patent Owner fails to point to where it made this “coupled to” argument previously or how it shows a patentable distinction. *See* Reh’g Req. 7. In any event, Patent Owner fails to show an overlooked matter. *See id.*

Patent Owner also argues that the Final Written Decision “find[s] that this language of claim 1 can be met by identifying potentially objectionable

material,” and therefore, the Final Written Decision “apparently overlooked or misapprehended the import of” an “unidentified potentially security-related event.” Reh’g Req. 7. Patent Owner fails to point to where this alleged finding is in the Final Written Decision. *See id.* To support this line of argument, Patent Owner repeats some of the arguments it advances in the Response and focuses on what Duvall teaches instead of the combination of Duvall and Chu. *See id.* at 8–9 (“merely identifying objectionable material does not identify a potentially security-related event”). These arguments, and similar arguments, fail to show an overlooked matter.

Patent Owner argues with respect to claim 18 that “Petitioner needed to have presented evidence and argument that a POSA would have been motivated to operate Duvall/Chu in a manner that satisfied this limitation and, specifically, ‘identif[ying] potentially security-related event[s].’” Reh’g 9. Then, Patent Owner states that the “[Final Written Decision] does not do so here.” *Id.* It is not clear what Patent Owner means by the “[Final Written Decision] does not do so here,” where before that, Patent Owner refers to what “*Petitioner* needed to have presented.” *See id.* (emphasis added). In any event, the Final Written Decision addresses claim 18, noting that the Petition addresses the limitation of “identifying the potentially security related events” by referring to its analysis of claim 1, which includes analysis of the asserted motivation for combining Duvall and Chu and Patent Owner’s arguments regarding same, and ultimately determining that Petitioner’s obviousness showing is persuasive. *See* FWD 23–28, 43–51, 112–121.

Based on the foregoing, Patent Owner fails to meet its burden of showing that the Final Written Decision overlooks or misapprehends a point raised by Patent Owner in its prior briefing.

C. Implicit and Explicit Constructions

In the heading for Section II.B of the Rehearing Request, Patent Owner contends as follows: **“The FWD’s Implicit and Explicit Constructions Concerning Post-Filtering Residue Are Flawed.”**

Reh’g Req. 10. In this section, Patent Owner summarizes and characterizes portions of the Final Written Decision without alleging that the Final Written Decision overlooks or misapprehends anything, except in one instance. *See* Reh’g Req. 10–12.

In particular, Patent Owner contends that it was consistent “between original prosecution, the prior litigation, admissions from Petitioner’s litigation counsel, and the ongoing reexamination,” with its claim construction of “post-filtering residue.” Reh’g Req. 10. Then, Patent Owner argues that “[t]he FWD apparently overlooked or misapprehended this consistency across parties and fora.” *Id.* Patent Owner also essentially repeats its contentions with respect to residue data. *See id.* (“[T]he Board’s findings regarding residue not needing to be status data and residue not needing to be filtered (and by implication not needing to survive both positive and negative filtering) are not only inconsistent with PO’s counsel’s repeated statements to the contrary at the hearing, but also inconsistent with the Fig. 2 embodiment, and associated description.”). As set forth in Section II.A above, the Final Written Decision finds that Duvall’s system discloses the residue data even under Patent Owner’s claim construction. FWD 29.

Patent Owner fails to cite to any portion of its Response where it relies on this alleged consistency and also fails to show how it rises to a patentable distinction. *See* Reh’g Req. 10–12.

Based on the foregoing, Patent Owner fails to meet its burden of showing that the Final Written Decision overlooks or misapprehends a point raised by Patent Owner in its prior briefing.

D. Petitioner's Alleged Admissions

Patent Owner contends in a heading for Section II.C of the Rehearing Request as follows: “**The Board Should Have Construed the Claims in Accordance with Petitioner's Admissions.**” Reh’g Req. 10. In this section, Patent Owner contends that “the Board clearly should find that post-filtering residue is status data—and, specifically, the specific status data that was ‘neither discarded nor selected by filtering’” based on alleged positions by Petitioner’s litigation counsel. *Id.* at 13. This argument and similar arguments in this section fail to show an overlooked or misapprehended argument for the reasons outlined above in Sections II.A and II.C.

Moreover, Patent Owner does not allege that the Final Written Decision does not analyze post-filtering data as status data. In any event, the Final Written Decision considers post-filtering residue under Patent Owner’s construction as noted above. *See, e.g.*, FWD 14 (stating that “even if we were to adopt this construction from the prior litigation, Petitioner shows that it reads on Duvall as modified by Chu”); FWD 29 (“Petitioner shows that Duvall satisfies limitation 1.b even under Patent Owner’s claim interpretation.”). Moreover, the Board pointed out that “[w]e agree” with “Patent Owner[’s statement] that ‘the Board can resolve the controversy in favor of Patent Owner without ever addressing [the prior litigation] constructions.’” *Id.* (quoting PO Resp. 6).

Patent Owner also argues that “the Board appears to have overlooked or misapprehended the importance of the agreed construction of

identifying/identified potentially security related events.” Reh’g Req. 13.

According to Patent Owner,

Petitioner’s litigation counsel initially sought to define this term as “potentially intrusive activity happening on a network.” EX2021, 49–54, 60–62. But Petitioner’s litigation counsel subsequently disclaimed this construction and instead agreed to construe “security-related events” as “attacks or intrusions against the computer network.” *Id.* Petitioner’s litigation counsel thus initially sought a construction narrower than proposed by Petitioner’s IPR counsel, and narrower than that adopted in the FWD—but then disclaimed it in view of a yet narrower construction. That yet narrower agreed construction actually reflects the technology at issue and drives a further wedge between what Duvall does (and what the alleged Duvall/Chu combination presumably would do), and what is to be understood from the properly construed claims. That is, identification of potentially objectionable material is in no way reflective of identifying potential attacks or intrusions against the computer network—even if that identification is “aided” by the blacklist/whitelist from Chu.

Reh’g Req. 13. Patent Owner fails to show where it made these arguments related to an alleged agreed-upon construction in its briefing. *See id.* at 12–13. Moreover, the Final Written Decision considers identifying potentially-related security events as including viruses and malware involved in intrusion detection systems as Duvall/Chu suggests and Dr. Jeffay testifies. *See, e.g.*, FWD 25–29; Ex. 1003 ¶ 138. Patent Owner’s arguments fail to address the findings related to viruses and malware as Duvall/Chu suggests and fail to show a patentable distinction over the Duvall/Chu combination. *See* Reh’g Req. 13–14.

Based on the foregoing, Patent Owner fails to meet its burden of showing that the Final Written Decision overlooks or misapprehends a point raised by Patent Owner in its prior briefing.

E. The Petition

Patent Owner contends in a heading for Section III of the Rehearing Request as follows: **“THE FWD SHOULD HAVE FOLLOWED THE PETITION—AND THE EVIDENCE—IN FINDING THE CHALLENGES DEFICIENT.”** Reh’g Req. 14. In this section, Patent Owner contends that “the Board clearly overlooked or misapprehended the proper meaning of potentially security-related events—including the fact that Petitioner expressly disclaimed a construction including ‘potentially intrusive activity happening on a network.’” *Id.* (citing Ex. 2021, 49–54, 60–62). Patent Owner fails to show where it advances this argument in its prior briefing. *See id.* This is essentially a repeat of Patent Owner’s arguments outlined in the previous section in which Patent Owner also fails to point out where it made this line of argument in its briefing.

Patent Owner argues that “the proper construction involves ‘attacks or intrusions against the computer network’ as Petitioner agreed.” Reh’g Req. 14. Patent Owner alleges that the Final Written Decision “compounds this error by crediting testimony that ‘Duvall’s and Chu’s similar technique for identifying objectionable material identifies potential and virus- and malware-related risks.’” Reh’g Req. 14 (quoting FWD 27)). Patent Owner fails to show where it made this line of argument or this claim construction in its briefing. *See id.* Also, even if “attacks or intrusions against the computer network” is the correct construction and Patent Owner timely raised it in its prior briefing, Patent Owner does not explain why that construction does not include potential viruses or malware as part of Duvall/Chu’s intrusion detection system, as Petitioner shows and as analyzed in the Final Written Decision. *See, e.g.*, FWD 25–29; Reh’g Req. 14.

Patent Owner next contends that “[t]he Board also clearly overlooked or misapprehended that Dr. Jeffay’s analysis was fatally flawed because he conducted no independent study of his own and could cite to no relevant studies linking objectionable material to potentially security-related events (especially not when properly construed).” Reh’g Req. 14 (citing PO Resp. 7–9; Sur-Reply 2–7; Ex. 2007, 68:22–69:8, 67:5–9; 69:14–70:4). This argument fails to show an overlooked or misapprehended point. Patent Owner fails to allege that there is a requirement for an expert declarant to produce an independent study for a claim construction, and we know of no such requirement. And similar to its other arguments outlined above, this line of argument ignores the testimony provided by Dr. Jeffay and analyzed in the Final Written Decision related to viruses, malware, and intrusion detection, as noted above.

Patent Owner also argues that “even if Chu’s filters were for some reason incorporated into Duvall (which would not have been done by a POSA), . . . [it] would require a fundamental change to Duvall’s principle of operation.” Reh’g Req. 15. Again, Patent Owner does not provide any citation to its briefing as to where it made this argument or any citation to the Final Written Decision that overlooks or misapprehends anything related to this argument. *See id.* Furthermore, as the Final Written Decision finds, modifying Duvall’s system to include intrusion detection based on Chu’s teachings and the knowledge of an artisan of ordinary skill would have involved “nothing more than use of known technique to improve similar devices, methods, or products in the same way (e.g., to detect malware or a potential intrusion instead of objectionable material).” *See* Ex. 1003 ¶ 138 (“Duvall’s filters would simply include, for example, IP addresses or other criteria (e.g., URLs) associated with malware or other potentially security-

related content.”); FWD 25–28 (quoting Ex. 1003 ¶ 138; citing Ex. 1003 ¶¶ 113–115, 137).

Patent Owner also argues that “[t]he FWD at page 28 also misapprehends what would result by ‘modifying Duvall’s filtering techniques based on Chu’s teachings’,” as “[t]here would have been no improvements.” Reh’g Req. 15. Patent Owner then argues that “a POSA would understand that following Chu’s teachings regarding trustworthiness would undermine Duvall’s purpose by allowing more objectionable material to reach the end user.” *Id.* (citing PO Resp. 9–12, 33–35; Sur-Reply 7–12).

These arguments track the contentions that the Final Written Decision addresses. *See, e.g.*, FWD 25–28. Contrary to the first argument, explicitly detecting malware and viruses using known intrusion detection techniques via Duvall’s system as suggested by Chu would have improved Duvall’s system by enhancing security detection and would not have undermined Duvall’s system or required anything more than minor modifications. *See id.* Disagreeing with our findings fails to show an overlooked or misapprehended point.

Contrary to the second argument, the Final Written Decision credits Petitioner’s contentions and evidence showing, *inter alia*, that the combined teachings of Duvall and Chu suggest that “a POSA would have been motivated to assign the role of managing and editing filters to a group of people having the expertise to properly evaluate whether ‘the filtering system is filtering too much or too little,’ *rather than the individual receiving the illicit content.*” FWD 48 (citing Pet. 39; Ex. 1004, 8:6–8; Ex. 1003 ¶ 144)). Again, disagreeing with our findings fails to show an overlooked or misapprehended point.

Patent Owner next argues as follows:

A POSA would further understand that prompting an end-user (or even a trained security analysis) each time a decision could not be reached would overwhelm that person and lead to problems the [']641 patent solves. And still further, the proposed modification relies on changing a multi-use, multi-user default filter based on one of these one-off decisions—which absolutely would be problematic in the technological context in which the [']641 patent operates.”

Reh’g Req. 15–16. Patent Owner fails to provide a citation to its briefing showing where it made these arguments and therefore fails to show an overlooked or misapprehended point. *See id.* Moreover, Patent Owner provides no basis to suggest that prompting trained security analysts to solve security problems (which they are trained to solve) using known filter techniques taught by Duvall-Chu “would be problematic” even if they do involve solving “one-off decisions.” *See id.*

Patent Owner also argues as follows:

In a related regard, the Board apparently misapprehended or overlooked Dr. Jeffay’s backtracking on the alleged benefit of introducing Chu to “more accurately resolv[e] residue data to ensure transmissions are correctly blocked or allowed.” Dr. Jeffay testified that there was no need for any additional techniques beyond those set forth in Duvall to address the problem of filtering too much or too little—and that “given the operation of Duvall, a [POSA] would understand that nothing more is needed.”

Reh’g Req. 15 (citing Ex. 2007, 133:17–22; POR 1–2, 9–12; Sur-Reply 7).

Contrary to this line of argument, the Final Written Decision analyzes Dr. Jeffay’s testimony in this regard and finds it credible for showing that the combined system of Chu and Duvall would have provided benefits to Duvall’s system. *See* FWD 42–51, 49 n.10 (finding Petitioner shows benefits including those related to uniformity of decisions via expert analysts

to optimize the handling of large volumes of unresolved residue data in order to avoid “filtering too much or too little” including residue such as malware, viruses, and intrusion attempts, as Chu suggests, and as further suggested by known third-party security systems cited by Petitioner and Dr. Jeffay). And after addressing Dr. Jeffay’s testimony and Patent Owner’s arguments related to it (FWD 49 n.10), the Final Written Decision finds as follows:

Patent Owner’s arguments do not undermine Petitioner’s showing that an artisan of ordinary skill would have looked to Chu’s similar system to address similar problems and to address security issues with human intervention such as malware, as outlined above. *See* Pet. 19–23. As Petitioner shows and as outlined above, the modification of Duvall’s similar system “amounts to nothing more than incorporating well-known techniques (providing information to human users for analysis) into Duvall’s known system” “with only minor changes to Duvall’s overall process” “to properly address Duvall’s residue data,” such that “the results of the combination would have been predictable.” *Id.* at 22–23 (citing *KSR*, 550 U.S. at 419–21). Under these circumstances, “where the prior art was so similar, and the choice of elements readily predictable, [Petitioner] did not need to show . . . a particular benefit” in modifying the prior art. *See Cisco Sys., Inc. v. K.Mizra LLC*, No. 2022–2290, 2024 WL 3841809, slip op. at *3 (Fed. Cir. Aug. 16, 2024) (holding that “the Board ran afoul of *KSR* and *Intel* by ignoring Cisco’s non-benefits-based, first and second motivation to combine rationales” (citing *KSR*, 550 U.S. at 419; *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373 (Fed. Cir. 2023) (“[C]ontrary to the Board’s suggestion, Intel never had to show that replacing Kabemoto’s secondary cache with Bauman’s secondary cache was an ‘improvement’ in a categorical sense.”))).

FWD 50–51. Patent Owner’s Rehearing Request does not acknowledge this analysis in the Final Written Decision and fails to show how the Final Written Decision overlooks or misapprehends any point.

Patent Owner also argues that “[t]he FWD . . . places too much credit on the citation to *KSR* regarding the use of known techniques to improve similar devices” and that “the proposed combination would harm Duvall, not improve it.” Reh’g Req. 16. Patent Owner does not explain how relying too much on Supreme Court precedent overlooks or misapprehends a point in contention here. *See id.* Moreover, as summarized above, the Final Written Decision finds that Petitioner shows benefits to modifying Duvall via Chu, and alternatively determines that under the circumstances here, Petitioner need not show a benefit.

Patent Owner further argues that “the concepts of identifying objectionable content vs. identifying potentially security-related events are orthogonal, meaning that the device of Duvall and the device of Chu are not ‘similar.’” Reh’g Req. 16. Patent Owner fails to allege that it advances this line of argument in its briefing and fails to allege that the Final Written Decision overlooks anything related to it. *See id.* The argument also fails to acknowledge the findings noted above related to intrusion detection, malware, and viruses, and accordingly, fails to show a patentable distinction. *See id.*

Based on the foregoing, Patent Owner fails to meet its burden of showing that the Final Written Decision overlooks or misapprehends a point raised by Patent Owner in its prior briefing.

F. Modification Limitation

Patent Owner contends that the Final Written Decision “(1) overlooks the lack of evidence and argumentation from Petitioner about whether Duvall is ‘reasonably capable’ of ‘dynamically modifying an analysis capability of said probe during operation thereof’ and (2) misapprehends [Patent Owner’s] expert testimony regarding the same.” Reh’g Req. 17.

Patent Owner adds that Dr. “Jeffay only discusses whether the database itself can be dynamically modified,” but “Dr. Jeffay nor Petitioner explains how Duvall’s analysis capabilities would be dynamically modified.” *Id.* Patent Owner further contends that “Duvall’s . . . disclosure suggests that it is not ‘reasonably capable’ absent significant and undisclosed modifications,” noting that Duvall discloses “copy[ing the database] to RAM during operation” and that “a user can copy URLs **for later editing**.” *Id.* (quoting 3:46–49, 8:12–13 (emphasis in original)). According to Patent Owner, the “Board effectively finds that Duvall’s mere use of a dynamically modifiable database inherently enables dynamic modification of the analysis capabilities of patching code that uses the database.” *Id.* at 18.

Patent Owner also contends that “the Board misapprehends the purpose of” Dr. Lee’s “discussion in paragraphs 134–141.” Reh’g Req. 18. That is, the “Board is correct that [Patent Owner]’s line of argument does not undermine Petitioner’s showing that a database can be dynamically modified,” “[b]ut that is not the point.” *Id.* at 18. Patent Owner submits that it “is not disputing whether a database itself can be dynamically modified,” but Patent Owner “presents evidence that Duvall’s analysis capabilities cannot be dynamically modified without significant modification based on its disclosure.” *Id.* (citing FWD 58–59). According to Patent Owner, “[t]he addition of a cache coherency solution is just one example of the many significant modifications that would have to be made by Duvall’s system to make it compatible with a dynamically modified database.” *Id.*

Patent Owner concludes that “[b]ecause Petitioner and its expert never provide any evidence or argumentation besides showing a database can be dynamically modified, Petitioner has failed its burden of persuasion.” Reh’g Req. 18–19.

These arguments fail to show an overlooked or misapprehended point. As summarized above, Patent Owner concedes that Petitioner and the evidence shows that known databases at the time of the invention provided dynamic modification functionality. The Final Written Decision explains how Petitioner persuasively shows that modifying Duvall's database filters results in modifying its analysis capabilities. *See, e.g.*, FWD 54 (summarizing part of Petitioner's showing regarding editing Duvall's filters), 61 (“[A]s Petitioner explains, current dynamic update decisions by the user analyst reflect previous filter updates based on residue feedback by a user analyst who had customized the filters as a result of having previously analyzed residue data ‘if the user believes the filtering system is filtering too much or too little.’” (*see* Ex. 1004, Fig. 4, 8:1–9), whereas, similarly, an automatic update from the server “preferably causes some or all of the existing filters [as previously customized based on residue feedback] in the filter database to be replaced” (*id.* at 7:27–29)) (citing Pet. 40–42; Ex. 1004, 2:16–18, 4:22–43, 7:18–21, 8:2–16; Ex. 1003 ¶¶ 150–153)). Patent Owner's Rehearing Request does not address these findings.

As the Final Written Decision also notes, Duvall states that its system implements its “editing manager generally *based on known database editing techniques.*” FWD 57 (emphasis added) (quoting Ex. 1004, 8:10–11). Further, the Final Written Decision finds based on record evidence that Duvall's probe employs such a dynamically modifiable database for its analysis capability or that such a feature would have been obvious. *See* FWD 53–62. Patent Owner's arguments that attempt to distinguish the analysis capabilities from Duvall's database gloss over the detailed findings in the Final Written Decision relating the two, including based on analysis of

testimony by the parties' experts related to asserted problems and challenges. *See id.*

For example, as the Final Written Decision notes,

as Petitioner argues, the '641 patent does not describe any detail for the claimed "dynamically modifying" functionality. Reply 18 (citing Ex. 1001, 5:32–35 ("The software and filters of probe/sentry system 2000, in a preferred embodiment, may be adaptive or, alternatively, may be manually updated offline or dynamically (that is, during actual operation).")). As Petitioner argues, "[t]his lack of detail demonstrates that the claimed 'dynamic modification' would have been well within the capability of a POSA." *Id.* (citing *Uber Techs., Inc. v. X One, Inc.*, 957 F.3d 1334, 1339 (Fed. Cir. 2020) (noting that when a patent specification "is entirely silent on how to" perform a claimed feature, it "suggest[s] that a person of ordinary skill in the art was more than capable of" performing that claimed feature)). *See* Ex. 2016 ¶¶ 134–141.

This lack of detail also undercuts Dr. Lee's testimony that cache consistency and other alleged problems associated with using RAM prevents the dynamic database functionality with respect to Duvall's known database techniques. That is, the '641 patent does not address any of the alleged known problems with respect to dynamic updates that Dr. Lee raises. Rather, it simply states that the filter database "may be manually updated offline or dynamically (that is, during actual operation)" without more description, as noted above. *See* Ex. 1001, 5:32–35. Therefore, this lack of detail also implies that the challenged claims neither preclude nor require known techniques raised by Dr. Lee and/or Dr. Jeffay, including, for example, re-booting the database or running cache protocol updates. *See* Ex. 2016 ¶¶ 134–141 (discussing Dr. Jeffay's solutions).

FWD 59–60.

In other words, the '641 patent and other evidence by Petitioner shows that modifying Duvall's database as Duvall discloses and suggests results in modifying its analysis capabilities and also shows that that modifying the analysis capability of Duvall's database would have required little or no

modification as evidenced by well-known commercial database functionality. *See* FWD 53–62. As set forth above, there is no dispute that known database techniques include dynamic modification functionality.

Based on the foregoing, Patent Owner fails to meet its burden of showing that the Final Written Decision overlooks or misapprehends a point raised by Patent Owner in its prior briefing.

G. Claim 6

Claim 6 depends from claim 2, which recites “[t]he system of claim 1, wherein the identifying step includes performing a multi-stage analysis of the status data.” Despite claiming a “step,” there is no “step” in claim 1, because it is not a method claim. In any event, claim 2 apparently refers to limitation 1.b, which recites “a filtering subsystem coupled to analyze status data to *identify* potentially security-related events represented in the status data.”

Claim 6 recites “[t]he system of claim 2, wherein the multi-stage analysis includes analysis at the probe and analysis at a secure operations center configured to receive data from the probe.”

Patent Owner contends that “[t]he Board incorrectly concluded that [Patent Owner] ‘did not dispute’ Petitioner’s showing that Duvall’s alleged multi-stage analysis includes analysis at the probe and at a secure operations center” as claim 6 requires. *See* Reh’g Req. 19. Patent Owner agrees that it did “not directly dispute intervening claim 2,” but Patent Owner “never conceded that Duvall’s multi-stage analysis included analysis at a secure operations center [(SOC)].” *Id.*

We agree with Patent Owner that Patent Owner did not concede that Duvall’s multi-stage analysis included analysis at a secure operations center. As the Final Written Decision notes, “the burden of persuasion never shifts

to the patent owner.” FWD 15 (citing *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015)). However, the Final Written Decision does not rely on any such concession or on Patent Owner’s decision not to dispute Petitioner’s showing for claim 2. *See* FWD 82, 86. Rather, the Final Written Decision merely notes that Patent Owner does “not address Petitioner’s showing for claim 2 separately from claim 1” (FWD 82) and then further notes the lack of a “dispute” as to that showing in analyzing Petitioner’s showing for claim 6, which depends from claim 2 (FWD 86). This notification was an effort to crystalize and address the specific issues in dispute in claim 6, as opposed to improperly shifting the burden to Patent Owner as to any claim element or anything else in reliance on any alleged concession or otherwise. *See id.*

In any event, according to Patent Owner, “the Board overlooks that the entirety of Petitioner’s argument for claim 6 is dedicated to disputing this very ‘showing’” regarding a multi-stage analysis at the SOC. Reh’g Req. 19. Patent Owner contends that it “explained that the only analyses Petitioner has shown at a SOC occurs *following* limitation 1(c).” Reh’g Req. 19 (citing PO Resp. 38–40) (emphasis added).

Contrary to this line of argument, the Final Written Decision addresses Patent Owner’s arguments related to limitations 1.b and 1.c (which Patent Owner incorrectly refers to as “steps”), and does not treat them as a concession. For example, the Final Written Decision addresses Patent Owner’s argument that “[t]he only analysis Petitioner suggests would be performed by Duvall-Chu’s analyst system occurs after both the identifying step [limitation 1.b] and after information about those identified events [limitation 1.c] have been sent to the analyst system.” FWD 85 (quoting PO Resp. 39; citing Pet., 38–40, 44–46); *see also id.* at 85–87

(addressing this line of argument). Therefore, the Final Written Decision does not rely on any concession by Patent Owner and does not overlook or misapprehend any argument related to a multi-stage analysis at an SOC.

Patent Owner contends that the Board “relies on . . . Petitioner’s argument,” and acknowledges that the Final Written Decision “interprets the references as disclosing that residue is sent to the SOC, which is then analyzed by the analyst.” Reh’g Req. 19 (citing FWD 86; Pet. 46).

However, according to Patent Owner,

[t]he Board overlooks that such a mapping would completely undo Petitioner’s mapping for claim 1. Indeed, Petitioner relies on that very same disclosure and transmission to show that information about an already identified event is transmitted to the analyst—thus satisfying limitation 1(c). This same disclosure of the same transmissions cannot both be the residue of limitation 1(b) (to satisfy claim 6), while also being an already identified event (for limitation 1(c)). Indeed, the Board acknowledged that limitation 1(c) must occur after limitation 1(b).

Id. (citing FWD 86).

Patent Owner notes that the Final Written Decision finds that Petitioner shows that “information flow[s] both ways” in Petitioner’s proposed combination, but contends that “Petitioner does not show . . . that information flows both ways *before* identified events are transmitted to the analyst as required by limitation 1(c).” Reh’g Req. 20.

Contrary to Patent Owner’s arguments, Petitioner shows that the combined teachings of Duvall and Chu suggest that information flows both ways during limitation 1.b. That is, for claims 2 and 6, Petitioner shows that the Duvall-Chu combined system identifies events as limitation 1.b requires, including to provide a multi-stage analysis of identified events at the probe and in a secure setting. *See* FWD 81–87. Petitioner also shows that the

combined system suggests sending more information about the identified events related to *unresolved* residue data after this multi-stage analysis, by reference to its showing for limitation 1.c. *See* FWD 50–51 (addressing limitation 1.c and finding persuasive Petitioner’s showing that “the combined teachings suggest employing trained network security analysts to handle a group of corporate filters in Duvall’s system, which would further optimize and uniformly handle unresolved data as opposed to leaving decisions about individual filters and associated websites to untrained single operators whose decisions may not be uniform (i.e., contradict each other)”), 81–87 (addressing the parties’ contentions for claims 2 and 6).

Furthermore, with respect to claim 6, Petitioner shows that the information flows “from the probe to the SOC, and from the SOC to the probe” (FWD 86) during limitation 1.b. *See* Pet. 44–46; FWD 81–87. In other words, Petitioner shows that the combined system of Duvall-Chu flags (identifies) unresolved residue data processed during limitation 1.b per the multi-stage analysis of claim 6 at the probe and SOC for further analysis and then sends information about that identified residue data from the SOC to the corporation during limitation 1.c. *See* FWD 50–51, 86.

Moreover, claims 1, 2, and 6 are system claims. Limitation 1.b does not preclude sending information between a probe and an SOC about events or identified events to perform the multi-stage analysis of claims 2 and 6, even though limitation 1.c requires sending some additional “information about the identified events” after limitation 1.b “identif[ies] . . . events.” Patent Owner does not specifically argue that claim 6 precludes performing functions that may satisfy limitation 1.c during the analysis of limitation 1.b, but even if we credit Patent Owner as advancing this argument, the argument is unavailing for the reason just noted. That is, by virtue of its showing for

claim 1, Petitioner shows how the Duvall-Chu iterative multi-stage system performs dependent claim 6 per limitation 1.b's requirements *before* the Duvall-Chu system performs limitation 1.c's requirements, even if Petitioner *also shows* that Duvall-Chu's iterative process *also performs* at least some aspects that may otherwise satisfy limitation 1.c during the analysis of limitation 1.b. *See* Pet. 44–46; FWD 83–87.

In summary, the Final Written Decision finds persuasive Petitioner's showing that information flow from the SOC to the corporation is consistent with limitation 1.c and occurs after limitation 1.b in response to arguments by Patent Owner. *See* FWD 86. Simply stated, to address claim 2, the Petition persuasively shows that Duvall's system provides a multi-stage residue analysis, including based on Duvall's iterative analysis as illustrated and described with respect to Figures 3 and 4. *See* Pet. 42–43; FWD 81–83. To address claim 6, the Petition persuasively shows that “[t]he Duvall-Chu combination teaches [this multi-stage] analysis at a probe followed by analysis at an analyst system” and “a POSA would have understood the analyst system could be on-site or at a secure remote site.” *See* Pet. 44–45; FWD 83–87. The Final Written Decision determines that Petitioner's showing for claims 2 and 6 is persuasive notwithstanding arguments by Patent Owner concerning the interplay between limitations 1.b and 1.c. *See* FWD 81–87.

Based on the foregoing, Patent Owner fails to meet its burden of showing that the Final Written Decision overlooks or misapprehends a point raised by Patent Owner in its prior briefing.

IV. CONCLUSION

For the foregoing reasons, Patent Owner fails to show that we misapprehended or overlooked any matter in the Final Written Decision.

V. ORDER

In consideration of the foregoing, it is hereby ORDERED that Patent Owner's Rehearing Request is *denied*.

PETITIONER:

Jonathan Tuminaro
Dan Block
Michael Specht
Steven Pappas
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
jtuminar-ptab@sternekessler.com
dblock-ptab@sternekessler.com
mspecht-ptab@sternekessler.com
spappas-ptab@sternekessler.com

PATENT OWNER:

Nolan M. Goldberg
Baldassare Vinti
PROSKAUER ROSE LLP
NGoldbergPTABMatters@proskauer.com
BVinti@proskauer.com

Jonathan A. Roberts
Raymond Y. Mah
Joseph A. Rhoa
NIXON & VANDERHYE P.C.
jr@nixonvan.com
rym@nixonvan.com
jar@nixonvan.com