

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

CISCO SYSTEMS, INC.,  
Petitioner,

v.

CENTRIPETAL NETWORKS, INC.,  
Patent Owner.

---

IPR2022-01151  
Patent 9,917,856 B2

---

Before BRIAN J. McNAMARA, AARON W. MOORE, and  
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

AMUNDSON, *Administrative Patent Judge*.

DECISION  
Granting Institution of *Inter Partes* Review  
35 U.S.C. § 314  
Granting Motion for Joinder  
35 U.S.C. § 315(c); 37 C.F.R. § 42.122

## I. INTRODUCTION

Cisco Systems, Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1, 24, and 25 in U.S. Patent No. 9,917,856 B2 (Exhibit 1001, “the ’856 patent”) under 35 U.S.C. §§ 311–319. Paper 2 (“Pet.”). Centripetal Networks, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 10 (“Prelim. Resp.”).

Concurrently with the Petition, Petitioner filed a Motion for Joinder seeking joinder as a party in *Palo Alto Networks, Inc. v. Centripetal Networks, Inc.*, IPR2022-00182 (“the PAN IPR”). Paper 3 (“Mot.”). Patent Owner filed an Opposition to Petitioner’s Motion for Joinder. Paper 8 (“Opp.”). And Petitioner filed a Reply in Support of Motion for Joinder. Paper 9 (“Reply”).

Under 37 C.F.R. § 42.4(a), we have authority to determine whether to institute an *inter partes* review. We may institute an *inter partes* review only if “the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a) (2018). The “reasonable likelihood” standard is “a higher standard than mere notice pleading” but “lower than the ‘preponderance’ standard to prevail in a final written decision.” *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13 (PTAB Dec. 20, 2019) (precedential).

We also have authority to consider Petitioner’s Motion for Joinder. *See* 35 U.S.C. § 315(c); 37 C.F.R. § 42.122 (2022).

For the reasons explained below, we (1) institute an *inter partes* review of claims 1, 24, and 25 in the ’856 patent on all challenges included

in the Petition and (2) grant Petitioner's Motion for Joinder subject to the conditions detailed below.

## II. BACKGROUND

### *A. Real Parties in Interest*

Petitioner identifies itself as the real party in interest. Pet. 13; Paper 7, 2. Patent Owner identifies itself as the real party in interest. Paper 4, 1; Paper 11, 1. The parties do not raise any issue about real parties in interest.

### *B. Related Matters*

Petitioner and Patent Owner identify the following civil actions where Patent Owner has asserted the '856 patent against an alleged infringer:

- *Centripetal Networks, Inc. v. Keysight Technologies, Inc. et al.*, No. 2:17-cv-00383 (E.D. Va. filed July 20, 2017) (settled); and
- *Centripetal Networks, Inc. v. Cisco Systems, Inc.*, No. 2:18-cv-00094 (E.D. Va. filed February 13, 2018), Appeal No. 21-1888 (Fed. Cir. filed April 7, 2021) (judgment vacated and case remanded for reassignment to a new district judge on June 23, 2022).

Pet. 13–14; Paper 4, 1; Paper 7, 2; Paper 11, 1; Ex. 1104, 26–27.

Petitioner and Patent Owner identify the following Board proceedings involving challenges to claims in the '856 patent:

- *Palo Alto Networks, Inc. v. Centripetal Networks, Inc.*, IPR2022-00182 (filed November 18, 2021, and instituted May 25, 2022); and
- *Keysight Technologies, Inc. v. Centripetal Networks, Inc.*, IPR2022-01199 (filed June 24, 2022).

Pet. 13–14; Paper 4, 1; Paper 7, 2; Paper 11, 1.

*C. The '856 Patent (Exhibit 1001)*

The '856 patent, titled “Rule-Based Network-Threat Detection for Encrypted Communications,” issued on March 13, 2018, from an application filed on December 23, 2015. Ex. 1001, codes (22), (45), (54). The patent discloses systems and methods for rule-based network-threat detection for encrypted communications. *See, e.g., id.* at 1:31–32, 1:57–63, 2:1–3, 2:20–3:56, 23:63–24:30, code (57), Figs. 1–2, 7.

The '856 patent states that network threats may “take a variety of forms (e.g., unauthorized requests or data transfers, viruses, malware, large volumes of traffic designed to overwhelm resources, and the like).” Ex. 1001, 1:8–11. The patent also states that network-threat services may “provide information associated with network threats, for example, reports that include listings of network-threat indicators (e.g., network addresses, domain names, uniform resource identifiers (URIs), and the like).” *Id.* at 1:11–15; *see id.* at 4:1–3, 4:30–32, 10:54–55. The patent explains that encrypted communications may “obfuscate data corresponding to network threats.” *Id.* at 1:17–18. The patent then identifies “a need for rule-based network-threat detection for encrypted communications.” *Id.* at 1:18–20.

To address that need, the '856 patent describes “a packet-filtering system configured to filter packets in accordance with packet-filtering rules” that receives “data indicating network-threat indicators.” Ex. 1001, 1:32–36, code (57). The packet-filtering rules may “cause the packet-filtering system to identify packets comprising unencrypted data, and packets comprising encrypted data.” *Id.* at 1:36–39, code (57). In the packets processed by the packet-filtering system, a “portion of the unencrypted data may correspond to one or more of the network-threat indicators.” *Id.* at 1:39–40, code (57).

Hence, the packet-filtering rules may “cause the packet-filtering system to determine, based on the portion of the unencrypted data, that the packets comprising encrypted data correspond to the one or more network-threat indicators.” *Id.* at 1:41–45, code (57); *see id.* at 11:8–13.

The packet-filtering rules may cause the packet-filtering system to identify packets or “determine that the packets comprise data corresponding to the network-threat indicators based on the packets comprising one or more of” the following:

- (i) “a URI specified by [the] rules”;
- (ii) “data indicating a protocol version specified by [the] rules”;
- (iii) “data indicating a method specified by [the] rules”;
- (iv) “data indicating a request specified by [the] rules”; or
- (v) “data indicating a command specified by [the] rules.”

Ex. 1001, 11:20–28.

Figure 1 in the '856 patent (reproduced below) depicts an environment for rule-based network-threat detection for encrypted communications:

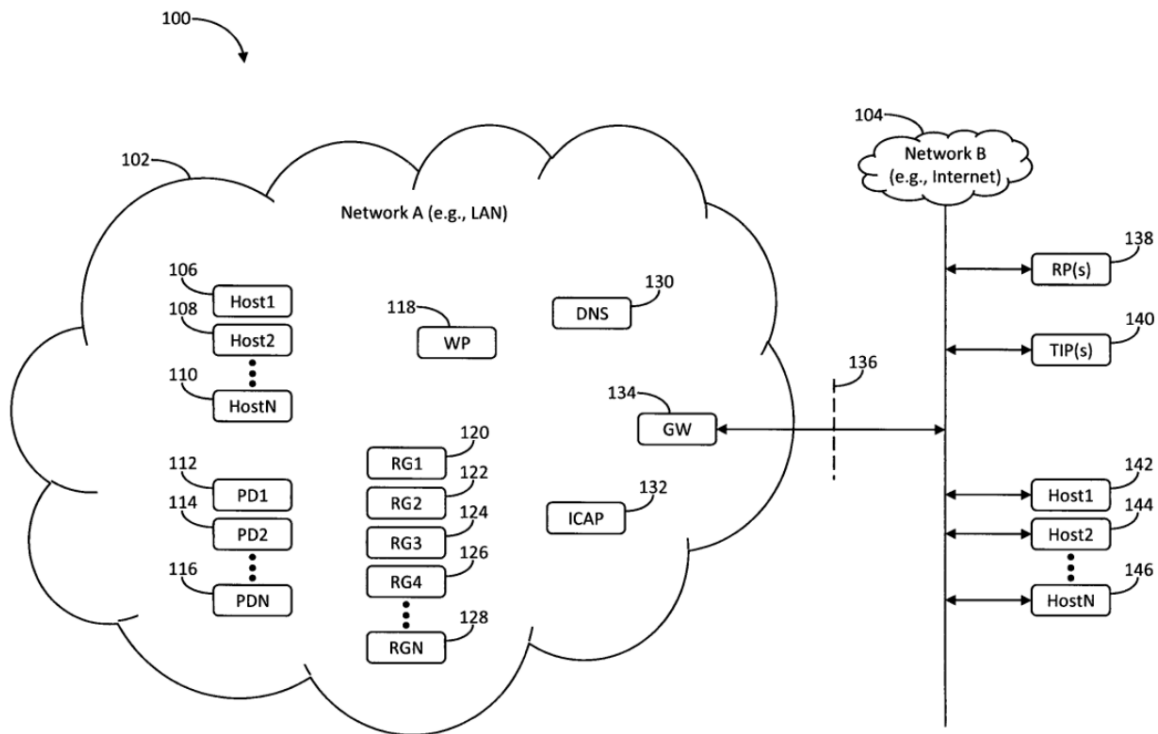


FIG. 1

Figure 1 illustrates environment 100 including networks 102 and 104 with network 102 “associated with one or more individuals or entities (e.g., governments, corporations, service providers, or other organizations)” and network 104 comprising “the Internet, a similar network, or portions thereof.” Ex. 1001, 2:20–34, Fig. 1; *see id.* at 1:57–59.

As shown in Figure 1, network 102 includes “hosts 106, 108, and 110, proxy devices 112, 114, and 116, web proxy 118, rule gates 120, 122, 124, 126, and 128, domain name system (DNS) 130, Internet content adaptation protocol (ICAP) server 132, and gateway 134.” Ex. 1001, 2:39–43, Fig. 1. As also shown in Figure 1, network 104 includes “one or more rule

providers 138, one or more threat-intelligence providers 140, and hosts 142, 144, and 146.” *Id.* at 2:53–56, Fig. 1. Gateway 134 resides at the border between networks 102 and 104 and serves as an interface between nodes in the respective networks. *Id.* at 2:50–60, Fig. 1; *see id.* at 2:43–49.

Figure 2 in the ’856 patent (reproduced below) depicts a packet-filtering system for rule-based network-threat detection for encrypted communications:

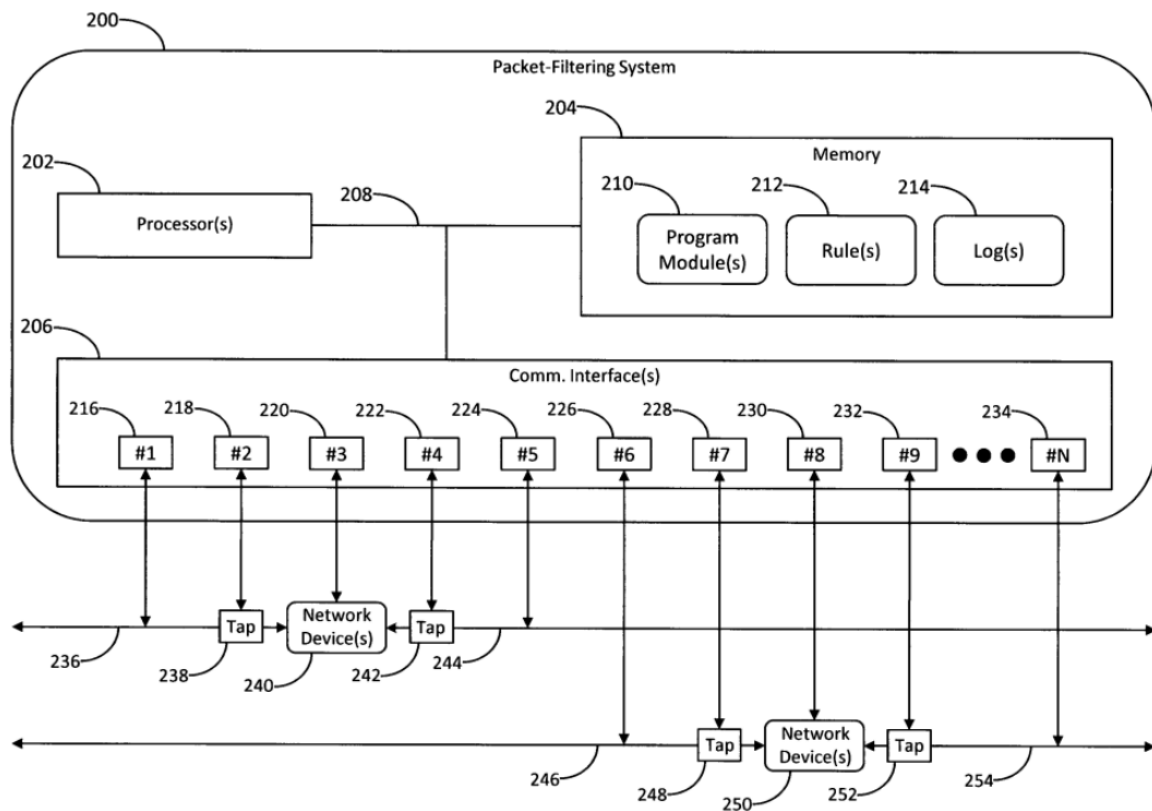


FIG. 2

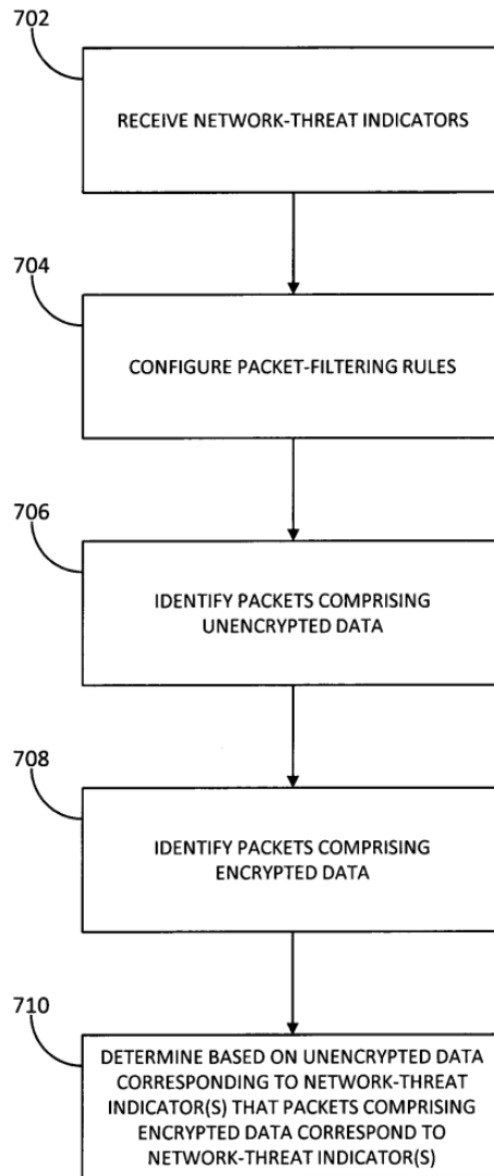
Figure 2 illustrates packet-filtering system 200 comprising “one or more processors 202, memory 204, one or more communication interfaces 206, and data bus 208.” Ex. 1001, 2:64–3:2, Fig. 2; *see id.* at 1:60–63. As shown in Figure 2, memory 204 includes the following:

- (1) program module(s) 210 comprising “instructions that when executed by processors 202 cause packet-filtering system 200 to perform” certain functions;
- (2) rule(s) 212 comprising “one or more packet-filtering rules in accordance with which packet-filtering system 200 is configured to filter packets received via communication interfaces 206”; and
- (3) log(s) 214 comprising “one or more entries generated by processors 202 in accordance with rules 212 for packets received by packet-filtering system 200 via communication interfaces 206.”

*Id.* at 3:4–14, Fig. 2

Communication interfaces 206 may “interface packet-filtering system 200 with one or more communication links” in networks 102 and 104 either directly, e.g., via links 236 and 244, or indirectly, e.g., via network device 240 or tap devices 238 and 242. Ex. 1001, 3:15–31. For example, “packet-filtering system 200 may provision tap device 238 with one or more of rules 212 configured to cause tap device 238 to identify packets traversing link 236 that correspond to specified criteria and route (or forward) the packets (or copies thereof) to interface 218” in communication interfaces 206. *Id.* at 3:31–36.

Figure 7 in the '856 patent (reproduced below) depicts steps in a method for rule-based network-threat detection for encrypted communications:



**FIG. 7**

Figure 7 is a flowchart with steps 702 through 710 in a “method for rule-based network-threat detection for encrypted communications.” Ex. 1001, 23:63–65, Fig. 7; *see id.* at 2:1–3.

In step 702, “a packet-filtering system may receive data indicating network-threat indicators,” e.g., rules generated by rule providers 138 based on “network-threat indicators provided by threat-intelligence providers 140.” Ex. 1001, 23:66–24:4, Fig. 7. In step 704, “the packet-filtering system may configure packet-filtering rules in accordance with which it is configured to filter packets.” *Id.* at 24:4–6, Fig. 7. In step 706, “the packet-filtering system may identify packets comprising unencrypted data,” e.g., “a DNS query, a reply to a DNS query, or a handshake message configured to establish an encrypted communication session.” *Id.* at 24:8–12, Fig. 7; *see id.* at 9:16–28. In step 708, “the packet-filtering system may identify packets comprising encrypted data,” e.g., packets encrypted according to a secure sockets layer (SSL) protocol or a transport layer security (TLS) protocol. *Id.* at 24:13–17, Fig. 7; *see id.* at 8:65–9:2, 9:47–51, 19:51–55, 20:3–7, 21:10–13, 23:39–42.

In step 710, “the packet-filtering system may determine based on a portion of the unencrypted data corresponding to the network-threat indicators that the packets comprising encrypted data correspond to the network-threat indicators.” Ex. 1001, 24:18–21, Fig. 7. For instance, “packet-filtering system 200 may determine that a domain name included in the DNS query, the reply to the DNS query, or the handshake message corresponds to the network-threat indicators, and packet-filtering system 200 may determine that one or more of the packets” encrypted according to an SSL/TLS protocol “correlate to one or more packets comprising the DNS query, the reply to the DNS query, or the one or more handshake messages.” *Id.* at 24:22–30; *see id.* at 8:65–9:2, 9:47–51, 19:51–55, 20:3–7, 21:10–13, 23:39–42.

*D. The Challenged Claims*

Petitioner challenges independent claims 1, 24, and 25. Pet. 8, 18–50. Claim 1 recites a method for filtering and routing packets comprising several steps. Ex. 1001, 25:14–49. Claim 24 recites a system comprising a hardware processor and a memory storing instructions for performing the steps in claim 1. *Id.* at 28:59–29:28. Claim 25 recites a computer-readable medium comprising instructions for performing the steps in claim 1. *Id.* at 29:29–30:31.

Claim 1 exemplifies the challenged claims and reads as follows (with formatting added for clarity and with numbers and letters added for reference purposes)<sup>1</sup>:

1. [1.pre] A method comprising:

[1.a] receiving, by a packet-filtering system comprising a hardware processor and a memory and configured to filter packets in accordance with a plurality of packet-filtering rules, data indicating a plurality of network-threat indicators, wherein at least one of the plurality of network-threat indicators comprises a domain name identified as a network threat;

[1.b] identifying packets comprising unencrypted data;

[1.c] identifying packets comprising encrypted data;

[1.d] determining, by the packet-filtering system and based on a portion of the unencrypted data corresponding to one or more network-threat indicators of the plurality of network-threat indicators, packets comprising encrypted data that corresponds to the one or more network-threat indicators;

[1.e] filtering, by the packet-filtering system and based on at least one of

---

<sup>1</sup> We use the same numbers and letters that Petitioner uses to identify the claim language.

a uniform resource identifier (URI) specified by the plurality of packet-filtering rules,

data indicating a protocol version specified by the plurality of packet-filtering rules,

data indicating a method specified by the plurality of packet-filtering rules,

data indicating a request specified by the plurality of packet-filtering rules, or

data indicating a command specified by the plurality of packet-filtering rules:

[1.f] packets comprising the portion of the unencrypted data that corresponds to one or more network-threat indicators of the plurality of network-threat indicators; and

[1.g] the determined packets comprising the encrypted data that corresponds to the one or more network-threat indicators; and

[1.h] routing, by the packet-filtering system, filtered packets to a proxy system based on a determination that the filtered packets comprise data that corresponds to the one or more network-threat indicators.

Ex. 1001, 25:14–49.

*E. The Asserted References*

For its challenges, Petitioner relies on the following references:

| Name          | Reference                                                                                           | Exhibit |
|---------------|-----------------------------------------------------------------------------------------------------|---------|
| Buruganahalli | US 9,680,795 B2, issued June 13, 2017<br>(based on an application filed June 30, 2016) <sup>2</sup> | 1004    |
| Baehr         | US 5,878,231, issued March 2, 1999<br>(based on an application filed February 4, 1997)              | 1005    |

---

<sup>2</sup> Buruganahalli claims priority to an application filed on June 5, 2013. Ex. 1004, 1:7–15, codes (60), (63); *see* Pet. 18 n.7.

Pet. 18. Petitioner asserts that Buruganahalli qualifies as prior art under § 102(a)(2) and that Baehr qualifies as prior art under § 102(a)(1) and § 102(a)(2). *Id.*; see 35 U.S.C. § 102(a)(1)–(2).

At this stage of the proceeding, Patent Owner does not dispute that the references qualify as prior art. See, e.g., Prelim. Resp. 34–49.

*F. The Asserted Challenges to Patentability*

Petitioner asserts the following challenges to patentability:

| Claim(s) Challenged | 35 U.S.C. § | Reference(s)/Basis   |
|---------------------|-------------|----------------------|
| 1, 24, 25           | 103         | Buruganahalli        |
| 1, 24, 25           | 103         | Buruganahalli, Baehr |

Pet. 18, 34–67.

*G. Testimonial Evidence*

To support its challenges, Petitioner relies on the declaration of Jon Weissman, Ph.D. (Exhibit 1003, “Weissman Decl.”).

III. ANALYSIS

*A. Statutory and Regulatory Provisions*

Regarding joinder, § 315(c) permits joinder as a party and reads as follows:

If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.

35 U.S.C. § 315(c).

Regarding timeliness, § 315(b) requires filing a petition for an *inter partes* review no later than “1 year after the date on which the petitioner, real

party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.” 35 U.S.C. § 315(b); *see* 37 C.F.R. § 42.101(b). But § 315(b) provides that the one-year time bar “shall not apply to a request for joinder” under § 315(c). 35 U.S.C. § 315(b); *see* 37 C.F.R. § 42.122(b).

Regarding timeliness, § 42.122(b) states, “Any request for joinder must be filed, as a motion under § 42.22, no later than one month after the institution date of any *inter partes* review for which joinder is requested.” 37 C.F.R. § 42.122(b).

The “plain language of § 315(c) requires two different decisions.” *Facebook, Inc. v. Windy City Innovations, LLC*, 973 F.3d 1321, 1332 (Fed. Cir. 2020) (“*Facebook*”). First, § 315(c) requires a determination “whether the joinder applicant’s petition for IPR ‘warrants’ institution under § 314.” *Id.* Second, § 315(c) requires an exercise of discretion “to decide whether to ‘join as a party’ the joinder applicant,” i.e., a joinder decision. *Id.* The statute “makes clear that the joinder decision is made *after* a determination that a petition warrants institution, thereby affecting the manner in which an IPR will proceed.” *Id.*

### *B. Whether the Petition Warrants Institution*

#### 1. INTRODUCTION

In the PAN IPR Institution Decision, the Board determined that Palo Alto Networks, Inc. (“PAN”) satisfied the “reasonable likelihood” standard for instituting trial. *Palo Alto Networks*, IPR2022-00182, Paper 11 (“PAN Inst. Dec.”) at 2, 55–80, 85–90. The Board also determined that the merits of the challenges to claims 1, 24, and 25 in the ’856 patent seem “particularly strong” on the preliminary record. PAN Inst. Dec. 21, 29–30; *see id.* at 55–80, 85–90.

Here, Petitioner presents substantively identical challenges to claims 1, 24, and 25 in the '856 patent based on the same prior art and the same unpatentability theories as PAN presents in the PAN IPR. *Compare* Pet. 34–67, with *Palo Alto Networks*, IPR2022-00182, Paper 2 (“PAN Pet.”) at 18–50; *see infra* §§ III.C.5(c), III.D.3. Patent Owner concedes that Petitioner “copies the merits arguments of PAN’s petition” and “asserts the same grounds as PAN.” Prelim. Resp. 34, 37.

Patent Owner asserts, however, that the Board should deny the Petition because the Board wrongly determined in the PAN IPR that PAN’s petition satisfied the “reasonable likelihood” standard for instituting trial. *See, e.g.*, Prelim. Resp. 3–4, 34–49; Opp. 12–14. For the reasons explained below, we disagree with Patent Owner’s assertions. *See infra* §§ III.B.2–III.B.5.

## 2. PATENT OWNER’S ASSERTIONS ABOUT HOW BURUGANAHALLI’S SECURITY DEVICES OPERATE

Patent Owner asserts that “the claims require rule-based filtering of encrypted packets” in limitation [1.g] and the similar limitations in claims 24 and 25 and that “Buruganahalli does not teach this limitation.” Prelim. Resp. 34 (emphasis omitted); *see id.* at 41; Opp. 12. Patent Owner asserts that “Buruganahalli never describes rule-based filtering of encrypted packets.” Prelim. Resp. 36. Patent Owner asserts that “encrypted packets must be decrypted” before any “alleged ‘packet-filtering rules’ are applied to encrypted traffic.” Opp. 13 (emphasis omitted). According to Patent Owner, “Buruganahalli’s policy-based filtering is performed on decrypted data, not ‘packets comprising encrypted data’ as claimed.” Prelim. Resp. 36 (emphasis omitted).

Additionally, Patent Owner contends that Buruganahalli discloses “two separate embodiments” in Figures 3A and 3B, and that neither embodiment “uses rules to filter encrypted packets.” Prelim. Resp. 36; *see id.* at 45; Opp. 12–13. Patent Owner asserts that the Figure 3A embodiment uses “policies to filter unencrypted packets (i.e., hello messages) without needing decryption.” Prelim. Resp. 36 (emphasis omitted); *see* Opp. 12. Patent Owner asserts that the Figure 3B embodiment uses “policies to filter data only after decrypting encrypted packets.” Prelim. Resp. 36; *see* Opp. 12.

Further, for the Figure 3A embodiment, Patent Owner discusses three scenarios: (1) a destination domain on a whitelist; (2) a destination domain on a blacklist; and (3) a destination domain “not on the whitelist or blacklist.” *See* Prelim. Resp. 18–21. According to Patent Owner:

- (1) for a destination domain on a whitelist, the security device (i) “allows the client hello message to pass through to the server,” (ii) “allows a secure connection to be established between the client and server,” and (iii) “subsequent encrypted traffic is simply forwarded to its destination without decryption or filtering”;
- (2) for a destination domain on a blacklist, the security device “can block the unencrypted client hello message from passing through to the server,” and “no encrypted packets are ever received because no secure connection is established in the first place”; and
- (3) for a destination domain “not on the whitelist or blacklist,” the security device “may initially allow the client hello message but require decryption of any further encrypted traffic associated with that session.”

*Id.* at 19–20 (emphases omitted); *see* Opp. 13.

For the Figure 3A embodiment, Patent Owner asserts that the security device “applies a policy to an unencrypted hello message and then decides whether to prevent the entire encrypted session before it ever begins,” thus “making decryption entirely unnecessary.” Prelim. Resp. 38 (footnote omitted). Patent Owner asserts that the “policies in Figure 3A are thus applied ‘prior to’ any encrypted session and never to an encrypted packet.” *Id.* Patent Owner also asserts that the “only reason Buruganahalli says ‘without having to decrypt’ in connection with Figure 3A is because the policies are being applied to an unencrypted packet before an encrypted session ever begins.” *Id.* at 37–38.

For the Figure 3B embodiment, Patent Owner quotes Buruganahalli’s disclosure that “any data that is communicated from the client 312 to the firewall 314 is decrypted” and “is then inspected by the firewall 314,” e.g., “to monitor the session traffic for firewall policy/rule compliance.” Prelim. Resp. 37 (quoting Ex. 1004, 12:30–32, 12:43–44).

Based on the current record, Patent Owner mischaracterizes how Buruganahalli’s security devices operate. *See, e.g.*, Prelim. Resp. 3, 34–45; Opp. 12–13.

Buruganahalli explains that a security device may monitor network traffic by “inspecting individual packets,” for example “using pass through (e.g., in line) monitoring techniques.” Ex. 1004, 3:16–18, 9:6–15, Fig. 1; *see id.* at 3:20–21, 3:40–44, 9:25–28, 9:32–36, 14:22–28; Ex. 1003 ¶ 130. The security device may apply “a policy (e.g., a security policy) based on the destination domain” to filter inbound traffic or outbound traffic (or both). Ex. 1004, 1:33–38, 2:62–3:4, 7:25–29, code (57); *see id.* at 5:35–51, 7:8–9,

7:35–42, 7:51–67, 14:28–33, 14:61–63; Ex. 1003 ¶ 108. The security device may apply one or more of the following policies:

- (1) “a malware detection policy”;
- (2) “a whitelist/blacklist policy”; and
- (3) “a uniform resource locator (URL)/category filtering policy.”

Ex. 1004, 7:42–51, 16:26–48; *see id.* at 7:52–67, 10:21–28; Ex. 1003 ¶¶ 90, 109.

Buruganahalli discloses that when a client attempts to access a remote server “using an encrypted session protocol,” the security device intercepts “the initial unencrypted/clear text data communications,” e.g., a TLS hello message, “exchanged as part of an initial handshake to setup a secure connection for a new session.” Ex. 1004, 4:37–40, 5:27–42, 14:21–25, 15:7–11, Figs. 6–7; *see id.* at 4:59–61, 6:39–41, 7:19–25, 11:7–12, 11:24–51, code (57); Ex. 1003 ¶¶ 103, 111–113. The security device processes the unencrypted data communications to “extract a hostname” that identifies the destination domain the client wants to connect with. Ex. 1004, 5:6–10, 9:50–57, 11:7–12, 11:47–51, 14:21–25, 14:28–31, 14:50–55, 15:11–18, code (57), Fig. 7; *see* Ex. 1003 ¶¶ 91, 111–112. For instance, the security device may analyze “an initial TLS handshake exchange” to “extract a hostname to facilitate destination domain extraction for secure protocols.” Ex. 1004, 11:47–51, 14:28–31, 14:50–55, 15:13–18; *see id.* at 5:6–10, 11:24–47; Ex. 1003 ¶ 111.

Based on the extracted hostname (destination domain), the security device “identifies the packets as being part of a new session and creates a new session flow.” Ex. 1004, 5:7, 5:35–36, 14:25–33; *see* Ex. 1003 ¶¶ 111,

115, 133. The security device uses the extracted hostname (destination domain) to “apply firewall policies or take responsive actions.” Ex. 1004, 5:35–42; *see id.* at 11:12–19; Ex. 1003 ¶ 108. For instance, the security device may use the extracted hostname (destination domain) to implement a whitelist/blacklist policy where blacklisted items correspond to network-threat indicators. Ex. 1004, 7:39–67, 16:32–48; *see* Ex. 1003 ¶¶ 61–62, 90–91, 105, 109, 116, 120, 124, 128, 132. The security device may apply one or more policies “prior to and/or without having to decrypt the encrypted secure tunnel session traffic.” Ex. 1004, 11:12–19; *see* Ex. 1003 ¶¶ 94, 113.

As an example, a security policy may specify that “the network communications between the client and the remote server are not decrypted if the destination domain is included in a whitelist of the whitelist/blacklist policy.” Ex. 1004, 7:55–59, 16:36–42; *see id.* at 7:42–50; Ex. 1003 ¶ 90. As another example, a security policy may specify that “the network communications between the client and the remote server are decrypted if the destination domain is included in a blacklist of the whitelist/blacklist policy.” Ex. 1004, 7:63–67, 16:43–48; *see id.* at 7:42–50; Ex. 1003 ¶ 90.

According to Buruganahalli, a security device inspects individual packets, for instance, because the packets “may be received out of order.” Ex. 1004, 3:16–18, 14:50–51; *see* Ex. 1003 ¶¶ 94, 130. So, a security device implementing a whitelist/blacklist policy may:

- (1) inspect a hello message for a first session, extract a hostname corresponding to a whitelisted destination domain, and create a first session flow; and
- (2) later inspect a hello message for a second session, extract a hostname corresponding to a blacklisted destination

domain, and create a second session flow (or not create the second session flow).

*See* Ex. 1004, 7:43–50, 14:21–26, 16:33–48; *see* Ex. 1003 ¶¶ 90, 109. When the security device subsequently receives a packet with encrypted data, the security device will inspect the packet and determine whether the packet is correlated to (1) the hostname corresponding to the whitelisted destination domain or (2) the hostname corresponding to the blacklisted destination domain. *See* Ex. 1004, 7:39–67, 14:26–28, 14:38–40, 14:50–57, 16:36–48; Ex. 1003 ¶¶ 64, 90, 94, 109.

Regarding the policy’s whitelist processing, if the security device determines that a newly received packet with encrypted data is correlated to the hostname corresponding to the whitelisted destination domain, the security device filters the packet by forwarding it to the remote server with the whitelisted destination domain. *See* Ex. 1004, 7:52–59, 16:36–42; Ex. 1003 ¶ 90; *see also* Ex. 1004, 6:1–11. Filtering the newly received packet with encrypted data by forwarding it to the remote server with the whitelisted destination domain occurs “without having to decrypt the encrypted secure tunnel session traffic.” Ex. 1004, 5:24–27, 5:35–42, 7:1–9, 11:7–19; *see* Ex. 1003 ¶¶ 94, 113.

Hence, we disagree with Patent Owner that session traffic associated with a whitelisted destination domain is “simply forwarded to its destination without . . . filtering.” *See* Prelim. Resp. 19.

Regarding the policy’s blacklist processing, if the security device determines that a newly received packet with encrypted data is correlated to the hostname corresponding to the blacklisted destination domain, the security device either blocks the packet (as Patent Owner contends) or filters

the packet by forwarding it to a decryption engine. *See* Ex. 1004, 7:60–67, 9:61–67, 14:33–36, 16:43–48; Ex. 1003 ¶¶ 90–91, 94, 97, 108, 118, 127, 137; Prelim. Resp. 19. Filtering the newly received packet with encrypted data by forwarding it to a decryption engine occurs “without having to decrypt the encrypted secure tunnel session traffic.” Ex. 1004, 5:24–27, 5:35–42, 7:1–9, 11:7–19; *see* Ex. 1003 ¶¶ 94, 113, 135. Further, filtering the newly received packet with encrypted data by forwarding it to a decryption engine results from applying a packet-filtering rule (a blacklisted destination domain) to the packet and corresponds to limitation [1.g] and the similar limitations in claims 24 and 25. *See* Ex. 1003 ¶¶ 109, 134–135.

Buruganahalli identifies the following advantage due to filtering packets with encrypted data based on a hostname extracted from a hello message: “the rest of the stream” containing packets with encrypted data “can be forwarded without any decryption resulting in less state to track thereby enhancing performance.” Ex. 1004, 5:43–51; *see* Ex. 1003 ¶ 113.

Buruganahalli discloses additional filtering after forwarding a newly received packet with encrypted data to a decryption engine, e.g., as occurs in the Figure 3B embodiment. *See, e.g.,* Ex. 1004, 6:17–22, 9:67–10:4, 12:4–64, Fig. 3B. But claims 1, 24, and 25 use the transitional term “comprising.” Ex. 1001, 25:14, 28:59, 29:29–30. Hence, the claims do not “exclude unrecited elements,” such as additional filtering after forwarding a newly received packet with encrypted data to a decryption engine. *See Regeneron Pharm., Inc. v. Merus N.V.*, 864 F.3d 1343, 1352 (Fed. Cir. 2017) (citing Manual of Patent Examining Procedure § 2111.03).

Patent Owner asserts that for certain destination domains, e.g., a destination domain “not on the whitelist or blacklist,” Buruganahalli

discloses that “a policy may cause the firewall to initially allow a session/flow and then ‘require[s] that the session be decrypted for further analysis and further potential filtering based on the policy.’” Prelim. Resp. 42 (alteration by Patent Owner) (emphasis omitted) (quoting Ex. 1004, 6:21–22).

Based on the current record, however, that disclosure does not help Patent Owner because a firewall implementing that policy filters packets with encrypted data by forwarding them to the specified destination domain “to initially allow a session/flow” and establish a secure session of some duration. Ex. 1004, 6:12–22; *see id.* at 6:22–38. After determining that the ongoing secure session warrants “further analysis and further potential filtering based on the policy,” the firewall filters subsequent packets with encrypted data in the ongoing secure session by forwarding them to a decryption engine. *See* Ex. 1004, 7:60–67, 9:61–67, 14:33–36, 16:43–48; Ex. 1003 ¶¶ 90–91, 94, 97, 108, 118, 127, 137. That filtering results from applying a packet-filtering rule (a suspicious destination domain) to the packets with encrypted data and corresponds to limitation [1.g] and the similar limitations in claims 24 and 25. *See* Ex. 1003 ¶¶ 109, 127; Ex. 1004, 10:15–20.

### 3. PATENT OWNER’S ASSERTIONS ABOUT BURUGANAHALLI’S FIGURE 6

Patent Owner asserts that Figure 6’s security device 402 “performs decryption before using policies for filtering” and does not apply policies to packets with encrypted data. *See* Prelim. Resp. 35, 43–44. In particular, Patent Owner contends that flow component 608 in security device 402 performs a flow lookup “on encrypted packets without applying policies.”

*Id.* at 43–44 (citing Ex. 1004, 14:8–15:3, Fig. 6; Ex. 2022, 16:50–17:40). Patent Owner contends that flow component 608 does not use “policies to filter encrypted packets.” *Id.* at 44 (citing Ex. 1004, 14:25–33). According to Patent Owner, flow component 608 determines “which flow the packet belongs to based on the ‘IP address and port number,’ not with reference to any alleged ‘packet-filtering rules.’” Opp. 13 (emphasis omitted) (quoting Ex. 1004, 9:26–27).

Further, Patent Owner asserts that decoder 614 in security device 402 “applies policies to the decrypted data.” Prelim. Resp. 43–44 (emphasis omitted) (citing Ex. 1004, 14:8–15:3, Fig. 6; Ex. 2022, 16:50–17:40).

To support its assertions, Patent Owner provides an annotated and highlighted version of Buruganahalli’s Figure 6 as reproduced below (Prelim. Resp. 44):

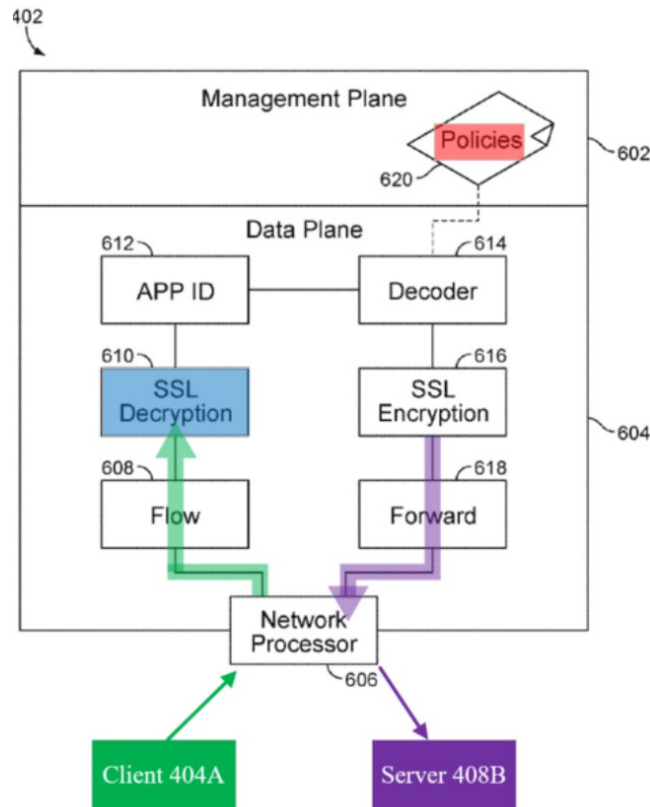


Figure 6 “is a functional diagram of logical components” in security device 402 “for providing destination domain extraction for secure protocols.” Ex. 1004, 2:1–4, 14:8–11, Fig. 6. This annotated and highlighted version of Figure 6 includes the following annotations and highlights:

- (1) the annotation “Client 404A” in a green box with a green arrow pointing from the green box to network processor 606;
- (2) the annotation “Server 408B” in a purple box with a purple arrow pointing from network processor 606 to the purple box;
- (3) a green arrow highlighting the path from network processor 606 through flow component 608 to decryption engine 610; and
- (4) a purple arrow highlighting the path from encryption engine 616 through forward component 618 to network processor 606; and
- (5) red highlighting in policies component 620.

*See* Prelim. Resp. 44.

Patent Owner’s assertions about Figure 6’s security device 402 disregard Buruganahalli’s disclosures that (1) decryption occurs only if “applicable” to a packet and (2) decryption is “omitted” if inapplicable. *See* Prelim. Resp. 43–44; Opp. 13; Ex. 1004, 14:21–38. Specifically, Buruganahalli explains with the following example how certain logical components in security device 402 cooperate to inspect and process packets:

Suppose a client 404A attempts to access a server 408B using an encrypted session protocol, such as SSL. Network processor 606 is configured to receive packets from client 404A, and provide the packets to data plane 604 for processing. Flow 608 identifies the packets as being part of a new session and creates

a new session flow. Subsequent packets will be identified as belonging to the session based on a flow lookup. As described herein, an initial TLS handshake exchange of that flow can be parsed to extract a hostname to facilitate destination domain extraction for secure protocols (e.g., and to apply one or more policies if applicable based on the extracted destination domain) using various techniques described herein. If applicable (e.g., using one or more policies based on the extracted destination domain), SSL decryption is applied by SSL decryption engine 610 using various techniques as described herein. Otherwise, processing by SSL decryption engine 610 is omitted.

Ex. 1004, 14:21–38.

Buruganahalli’s disclosures that (1) decryption occurs only if “applicable” to a packet and (2) decryption is “omitted” if inapplicable refutes Patent Owner’s assertion that Figure 6’s security device 402 “performs decryption before using policies for filtering” and does not apply policies to packets with encrypted data. *See* Ex. 1004, 14:33–38; Prelim. Resp. 35, 43–44.

Patent Owner’s contention that flow component 608 determines “which flow the packet belongs to based on the ‘IP address and port number,’ not with reference to any alleged ‘packet-filtering rules’” does nothing to distinguish claims 1, 24, and 25 from Buruganahalli. *See* Opp. 13. Determining “which flow the packet belongs to based on the ‘IP address and port number’” corresponds to limitation [1.d] and the similar limitations in claims 24 and 25. *See* PAN Inst. Dec. 64; Ex. 1003 ¶¶ 116–121. Filtering by applying policies occurs after determining “which flow the packet belongs to based on the ‘IP address and port number.’” *See, e.g.,* PAN Inst. Dec. 66–67, 69–71. Patent Owner admits that “decoder 614

applies policies,” although Patent Owner asserts erroneously that the policies are applied only to decrypted data. Prelim. Resp. 43–44 (emphasis omitted).

Patent Owner asserts that Petitioner relies on policies component 620 in security device 402 for the “plurality of packet-filtering rules” required by limitation [1.a] and the similar limitations in claims 24 and 25. Prelim. Resp. 34–35 (citing Pet. 46). Patent Owner then contends that decoder 614 in security device 402 uses those policies “after decryption is performed by” decryption engine 610 in security device 402. *Id.* at 35.

Contrary to Patent Owner’s argument, however, security device 402 may apply policies to a packet with encrypted data either (1) without processing by decryption engine 610 or (2) after processing by decryption engine 610. Ex. 1004, 14:33–38, 14:43–44, 14:50–57, Fig. 6. So, security device 402 may apply policies to a packet with encrypted data that bypasses decryption engine 610, i.e., “decryption engine 610 is omitted.” *Id.* at 14:37–38.

Additionally, Patent Owner’s annotated and highlighted version of Buruganahalli’s Figure 6 undermines Patent Owner’s assertion that session traffic associated with a whitelisted destination domain is “simply forwarded to its destination without . . . filtering.” *See* Prelim. Resp. 19, 44. Specifically, this version of Figure 6 shows security device 402 processing all session traffic, i.e., each packet without encrypted data and each packet with encrypted data. *Id.* at 44. No packets bypass security device 402 such that some packets are “simply forwarded” from client 404A to server 408B without inspection and processing by security device 402. *Id.*

#### 4. PATENT OWNER’S ASSERTIONS ABOUT BURUGANAHALLI’S FLOW LOOKUP

Citing the PAN IPR Institution Decision, Patent Owner asserts that the Board “incorrectly” relied on “Buruganahalli’s flow lookup” for multiple limitations. *See* Prelim. Resp. 43 (citing PAN Inst. Dec. 60–62, 69). Patent Owner asserts that the Board should avoid making the same mistake here. *See id.* at 43–45.

In particular, Patent Owner contends that the Board pointed to “Buruganahalli’s flow lookup for limitations [1.b] and [1.c] of ‘identifying’ unencrypted and encrypted packets, respectively.” Prelim. Resp. 43. Patent Owner then contends that “[i]t is inconsistent and contrary to the doctrine of attributing different meaning to different claim terms to rely on the same flow lookup for the separate step of ‘filtering’” according to limitation [1.g]. *Id.*

Patent Owner mischaracterizes the analysis for limitations [1.b], [1.c], and [1.g] in the PAN IPR Institution Decision as “inconsistent.” *See* PAN Inst. Dec. 60–62, 68–71; Prelim. Resp. 43. For limitations [1.b] and [1.c], the PAN IPR Institution Decision discusses Buruganahalli’s disclosures that a security device:

- (1) analyzes “an initial TLS handshake exchange” to “extract a hostname to facilitate destination domain extraction for secure protocols”;
- (2) “identifies the packets as being part of a new session and creates a new session flow” based on a hostname (destination domain) extracted from unencrypted data communications, e.g., the handshake traffic; and
- (3) inspects the session traffic including “encrypted data communications associated with the session” and

identifies packets “as belonging to the session based on a flow lookup.”

PAN Inst. Dec. 61–62 (quoting Ex. 1004, 8:58–59, 14:25–31) (citing Ex. 1003 ¶¶ 91, 103, 111–115; Ex. 1004, 4:37–40, 4:59–61, 5:6–10, 5:27–42, 6:39–41, 7:19–25, 8:55–60, 9:50–57, 11:24–51, 14:21–33, 14:50–55, 15:7–18, code (57), Figs. 6–7).

For limitation [1.g], the PAN IPR Institution Decision discusses Buruganahalli’s disclosures that a security device:

- (1) “identifies the packets as being part of a new session and creates a new session flow” based on a hostname (destination domain) extracted from unencrypted data communications, e.g., the handshake traffic; and
- (2) inspects the session traffic including “encrypted data communications associated with the session” and identifies packets “as belonging to the session based on a flow lookup.”

PAN Inst. Dec. 69–70 (quoting Ex. 1004, 8:58–59, 14:25–28) (citing Ex. 1003 ¶¶ 111, 115, 120–121, 133, 135; Ex. 1004, 5:7, 5:35–36, 8:55–60, 9:50–57, 11:24–51, 14:21–33, 14:50–55).

Hence, the analysis for limitations [1.b], [1.c], and [1.g] in the PAN IPR Institution Decision considers how a security device comprising multiple components operates, such as Figure 1’s security device or firewall 100 and Figure 6’s security device 402. *See* PAN Inst. Dec. 61–62, 69–70; Ex. 1004, 1:46–49, 2:1–4, 9:3–10:28, 14:8–15:3, Figs. 1, 6. For instance, security device 402 includes flow component 608 that performs a flow lookup to identify packets “as belonging to the session.” Ex. 1004, 14:25–28, Fig. 6; *see* Ex. 1003 ¶ 111. But security device 402 includes several other components. *See* Ex. 1004, 14:21–60, Fig. 6.

Those other components include application-identification module 612 that may inspect packets to (1) “determine what type of traffic the session involves” and (2) “identify a user associated with the traffic flow.” Ex. 1004, 14:38–40, Fig. 6; *see id.* at 9:17–19, 9:36–43, 14:44–47. Those other components also include decoder 614 that may inspect packets to (1) “extract out information,” e.g., a hostname, and (2) “determine what should happen to the packet.” *Id.* at 14:50–57, Fig. 6; *see id.* at 9:44–57. Patent Owner admits that “decoder 614 applies policies,” although Patent Owner asserts erroneously that the policies are applied only to decrypted data. Prelim. Resp. 43–44 (emphasis omitted).

Additionally, Buruganahalli discloses that a decoder may report information to a policy engine that enforces “network/routing policies, security policies, and/or firewall policies,” e.g., by “URL/category filtering.” Ex. 1004, 9:44–47, 10:10–15, 10:22–25; *see id.* at 7:42–51. Consistent with that disclosure, Buruganahalli’s Figure 6 illustrates policies component 620 communicating with decoder 614, and policies component 620 “can include one or more rules, which can be specified using domain and/or host/server names” for filtering. *Id.* at 14:58–63, Fig. 6.

Contrary to Patent Owner’s contentions, the analysis for limitations [1.b], [1.c], and [1.g] in the PAN IPR Institution Decision does not map the limitations to just one component in Figure 6’s security device 402, i.e., flow component 608. *See* PAN Inst. Dec. 61–62, 69; Prelim. Resp. 43. In any event, claims 1, 24, and 25 do not require that a packet-filtering system have one component for “identifying” packets and another, different component for “filtering” packets. *See* Ex. 1001, 25:14–49, 28:59–30:31; *see also Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1231–32

(Fed. Cir. 2011) (deciding that the same structure in an accused device satisfied a claim's requirement for a "cutting box" and the claim's requirement for a "dust collection structure").

#### 5. PATENT OWNER'S OTHER ASSERTIONS

Patent Owner asserts that Buruganahalli employs a decrypt-first approach because Buruganahalli states that "firewall 304 typically cannot decrypt the encrypted secure tunnel session traffic and, thus, cannot detect such firewall policy/rule violation(s)" without that approach. Prelim. Resp. 39 (citing Ex. 1004, 11:2–6, Fig. 3A).

But after stating that "firewall 304 typically cannot decrypt the encrypted secure tunnel session traffic," Buruganahalli explains that its inventive techniques do not suffer from that infirmity as follows:

However, using various techniques described herein for destination domain extraction for secure protocols that facilitate the extraction of the destination domain by parsing the handshake traffic (e.g., parsing a client hello message to extract a hostname that identifies the destination domain being requested by the client to the remote server), the firewall 304 can apply one or more firewall policies/rules implemented by the firewall device 304 (e.g., a policy that includes requirements or rules related to destination domains that may be used for secure protocol communications) prior to and/or without having to decrypt the encrypted secure tunnel session traffic.

Ex. 1004, 11:7–19.

To address the explanation in Buruganahalli column 11 quoted above, Patent Owner cites another patent, i.e., U.S. Patent No. 9,967,236 to Ashley et al. ("Ashley"), assigned to Palo Alto Networks, Inc.<sup>3</sup> See Prelim. Resp.

---

<sup>3</sup> Although Patent Owner cites Ashley as Exhibit 2022, Patent Owner did not file an Exhibit 2022. See Prelim. Resp. iii, 38–39.

iii, 38–39. Patent Owner asserts that Ashley’s Figures 1–6 are “nearly identical” to Buruganahalli’s Figures 1–6 and that Ashley omits the explanation in Buruganahalli column 11 quoted above. *Id.* at 38–39 (citing Ex. 1004, 11:7–19). Patent Owner then contends that Ashley’s omission of that explanation “demonstrates that Buruganahalli, in describing nearly identical figures, does not teach policy-based filtering encrypted packets without decryption.” *Id.* at 39.

But Ashley differs materially from Buruganahalli. Among other things, Ashley and Buruganahalli have:

- (1) different family trees, i.e., no related ancestor or descendant applications or patents;
- (2) different inventors and no common inventor;
- (3) different titles, i.e., “Credentials Enforcement Using a Firewall” in Ashley and “Destination Domain Extraction for Secure Protocols” in Buruganahalli;
- (4) different abstracts, i.e., “Techniques for credentials enforcement using a firewall . . . .” in Ashley and “Techniques for destination domain extraction for secure protocols . . . .” in Buruganahalli; and
- (5) different claims covering materially different inventions.

In light of these differences, Ashley’s omission of the explanation in Buruganahalli column 11 quoted above has no bearing on Buruganahalli’s disclosure of inventive techniques for destination domain extraction for secure protocols and whether any of those techniques process packets with encrypted data “prior to and/or without having to decrypt the encrypted secure tunnel session traffic.”

Additionally, as evidence concerning Buruganahalli’s Figure 3A embodiment, Patent Owner quotes Ashley’s statement that “firewall 304

cannot decrypt the encrypted secure tunnel session traffic and, thus, cannot detect such firewall policy/rule violation(s).” Prelim. Resp. 38. But Buruganahalli’s similar statement that “firewall 304 typically cannot decrypt the encrypted secure tunnel session traffic and, thus, cannot detect such firewall policy/rule violation(s)” contains the qualifier “typically” before “cannot decrypt the encrypted secure tunnel session traffic.” Ex. 1004, 11:4–6. Buruganahalli follows that qualified statement with the explanation in Buruganahalli column 11 quoted above. *Id.* at 11:7–19. And that explanation explicitly points out that a security device implementing Buruganahalli’s inventive techniques may apply one or more policies “prior to and/or without having to decrypt the encrypted secure tunnel session traffic.” *Id.*

Patent Owner asserts that packets with encrypted data in Buruganahalli “must be decrypted in order to determine whether the extracted destination domain name matches the domain associated with the session’s URL” because Buruganahalli discloses decrypting packets “to detect malware that attempts to fool a hosting site by including false destination domain information.” Prelim. Resp. 46–47 (quoting Ex. 1004, 8:20–22).

But Buruganahalli discloses decrypting packets “to detect malware” as just one of several techniques for destination domain extraction for secure protocols. *See, e.g.*, Ex. 1004, 5:24–9:3, 10:54–13:4, code (57). Other techniques for destination domain extraction for secure protocols permit a security device to apply one or more policies “prior to and/or without having to decrypt the encrypted secure tunnel session traffic.” Ex. 1004, 11:12–19; *see id.* at 5:24–27, 5:35–42, 7:1–9; Ex. 1003 ¶¶ 94, 113, 135. For example,

Buruganahalli explains that “[i]n some embodiments, the SNI [Server Name Indication] standard extension” indicating a hostname “is used as disclosed herein as a mechanism to facilitate destination domain extraction for secure protocols without requiring decryption.” Ex. 1004, 5:24–27; *see id.* at 4:65, 5:6–7, 5:27–51. Additionally, consistent with using different techniques for different purposes, Buruganahalli identifies “a malware detection policy” as different from “a whitelist/blacklist policy.” *Id.* at 7:42–51, 16:26–28, 16:33–48.

Patent Owner asserts that the ’856 patent “describes rule gates of the packet-filtering system performing filtering on packets comprising encrypted data” and a proxy device “decrypting data after (and separate from) the filtering.” Prelim. Resp. 40–41 (citing Ex. 1001, 9:66–10:16, 11:36–65, Fig. 3B). That assertion does nothing to distinguish claims 1, 24, and 25 from Buruganahalli because the claims do not specify what component or components in a packet-filtering system perform the claimed “filtering” and “filter” operations. *See* Ex. 1001, 25:14–49, 28:59–30:31. Nor do the claims specify what component or components in a packet-filtering system perform the claimed “identifying” and “identify” operations. *See id.*

## 6. THE STANDARD FOR INSTITUTING REVIEW

Citing *OpenSky Industries, LLC v. VLSI Technology LLC*, IPR2021-01064, Paper 102 (PTAB Oct. 4, 2022), Patent Owner asserts that the Board should reconsider PAN’s petition using a “compelling merits” standard instead of the “reasonable likelihood” standard for instituting trial. *See* Prelim. Resp. 1–3, 27–33. In particular, Patent Owner contends that a “compelling merits” standard should apply to PAN’s petition because PAN

“filed its petition for many of the same ‘improper purposes’ as the petitioner” in *OpenSky*. *Id.* at 1; *see id.* at 27–29.

But the issue in this proceeding “is whether to join Petitioner as a party to the ongoing trial,” not “whether to conduct a completely separate trial.” *See AT&T Servs., Inc. v. Broadband iTV, Inc.*, IPR2021-00556, Paper 14 at 12 (PTAB Aug. 25, 2021). Further, the facts in *OpenSky* differ dramatically from the facts here.

In *OpenSky*, the Director determined that “OpenSky engaged in abuse of process and unethical conduct by offering to undermine and/or not vigorously pursue this matter in exchange for a monetary payment.” *OpenSky*, IPR2021-01064, Paper 102 at 3; *see id.* at 32. Among other things, the Director found that:

- (1) OpenSky “was formed for the express and sole purpose of extracting payment from VLSI or Intel”;
- (2) “the sole reason OpenSky filed the Petition was for the improper purpose of extracting money from either or both Intel and VLSI”;
- (3) OpenSky “was willing to offer its advocacy to either side of this adversarial proceeding, depending on who was willing to pay”;
- (4) OpenSky “intended to leverage the IPR’s existence only to extract a payout from one side or the other”;
- (5) “OpenSky’s goal was to extract a payment rather than litigate the validity of VLSI’s patent”; and
- (6) OpenSky attempted to “sabotage the adversarial process.”

*Id.* at 37, 39–42, 44.

When deciding how to remedy “OpenSky’s abuse of the process,” the Director considered the “unique dynamics” of the case “coupled with the

public interest in evaluating patent challenges with compelling merits.”  
*See OpenSky*, IPR2021-01064, Paper 102 at 44–47. To “best serve[] the competing interests,” the Director ordered the Board to determine “whether the record before the Board prior to institution indicates that the Petition presents a compelling, meritorious challenge.” *Id.* at 48–49, 51; *see id.* at 4–5.

Patent Owner does not direct us to evidence that PAN “filed its petition for many of the same ‘improper purposes’ as the petitioner” in *OpenSky*. *See, e.g.*, Prelim. Resp. 1–3, 27–33. Instead, seeking to demonstrate some impropriety, Patent Owner discusses Petitioner’s conduct, *e.g.*, that Petitioner did not rely on Buruganahalli when disputing the ’856 patent’s validity in Patent Owner’s infringement action against Petitioner. *See, e.g., id.* at 31–33; Opp. 3–4. But the remedy in *OpenSky* resulted from “OpenSky’s abuse of the process,” not the joinder applicant’s conduct. *OpenSky*, IPR2021-01064, Paper 102 at 43–51; *see OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 114 at 2 (PTAB Nov. 4, 2022).

Additionally, the Director explained in *OpenSky* that “Congress did not implement a standing requirement for petitioners” and “there is nothing *per se* improper about a petitioner who is not a patent infringement defendant filing an IPR petition.” *OpenSky*, IPR2021-01064, Paper 102 at 28, 36 (footnote omitted). The Director also explained that “[t]he Office has repeatedly instituted IPRs where the petitioner has not been sued for infringement.” *Id.* at 35. For instance, “there may be circumstances” where:

- (1) “a petitioner has not yet been sued, but believes it may be, or otherwise wants to make sure it has the freedom to operate”; or

- (2) “a petitioner is planning to enter the field of technology that the patent protects and is trying to clear entry barriers.”

*Id.* at 36.

The PAN IPR Institution Decision notes that (1) Patent Owner alleged in a 2021 civil action in the Eastern District of Virginia that PAN infringed thirteen patents and (2) PAN subsequently filed petitions requesting *inter partes* reviews or a post-grant review of all claims in each of the thirteen patents as well as petitions requesting *inter partes* reviews of various claims in three additional patents, including the ’856 patent. PAN Inst. Dec. 14–15. The PAN IPR Institution Decision explains that PAN “expresses reasonable concern that Patent Owner may initiate additional litigation involving the ’856 patent.” *Id.* at 21.

Further, insofar as there are pending applications or other patents in the same family as the ’856 patent, an adverse judgment against Patent Owner in the PAN IPR would preclude Patent Owner “from taking action inconsistent with the adverse judgment,” including obtaining in any patent any claim “that is not patentably distinct from a finally refused or canceled claim.” *See* 37 C.F.R. § 42.73(d)(3). So, PAN may want to “make sure it has the freedom to operate.” *See OpenSky*, IPR2021-01064, Paper 102 at 36. Consistent with this, PAN states that it challenged the ’856 patent because the ’856 patent (1) “is directly related” to patents that Patent Owner has asserted against PAN and (2) “includes overlapping claims/specification/terms.” Ex. 2010, 1.

Under the circumstances here, and for the reasons discussed above, we decline Patent Owner’s invitation to depart from the “reasonable likelihood” standard for instituting trial.

## 7. CONCLUSION

As discussed above, Petitioner presents substantively identical challenges to claims 1, 24, and 25 in the '856 patent based on the same prior art and the same unpatentability theories as PAN presents in the PAN IPR. *Compare* Pet. 34–67, *with* PAN Pet. 18–50; *see* Prelim. Resp. 34, 37; *supra* § III.B.1; *infra* §§ III.C.5(c), III.D.3. Based on the current record, and for the reasons discussed above, Patent Owner's arguments that the Petition fails to satisfy the "reasonable likelihood" standard for instituting trial lack merit. *See supra* §§ III.B.2–III.B.5. Hence, we determine that the Petition "warrants the institution of an inter partes review under section 314." *See* 35 U.S.C. § 315(c).

### *C. Discretionary Denial*

Under § 314(a), the Director possesses "broad discretion" in deciding whether to institute an *inter partes* review. *See* 35 U.S.C. § 314(a); *Saint Regis Mohawk Tribe v. Mylan Pharm. Inc.*, 896 F.3d 1322, 1327 (Fed. Cir. 2018). The Director is "permitted, but never compelled," to institute an *inter partes* review. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). The Board decides whether to institute an *inter partes* review on the Director's behalf. 37 C.F.R. § 42.4(a).

Determining "whether the joinder applicant's petition for IPR 'warrants' institution under § 314" may include an analysis of "the Director's discretionary authority of § 314(a)." *Apple Inc. v. Uniloc 2017 LLC*, IPR2020-00854, Paper 9 at 5 (PTAB Oct. 28, 2020) (precedential) ("*Uniloc*") (quoting *Facebook*, 973 F.3d at 1332); *see id.* at 8, 13.

# 1. BACKGROUND: THE CISCO CASE

In February 2018, Patent Owner filed a complaint against Petitioner in the Eastern District of Virginia (“the Cisco case”) alleging infringement of a number of patents. Ex. 1027, 1; *see* Ex. 1028, 11.<sup>4</sup> In March 2018, Patent Owner filed an amended complaint additionally alleging infringement of the ’856 patent, which issued earlier in March 2018. Ex. 1027, 2.

In May and June 2020, the district court conducted a bench trial. Ex. 1027, 3, 22. At trial, Patent Owner asserted infringement of ten claims in five patents, including claims 24 and 25 in the ’856 patent. *Id.* at 1–2, 22.

In October 2020, the district court issued an opinion and order with findings of fact and conclusions of law concerning infringement, validity, and damages. Ex. 1027, 1. Among other things, the court found that various combinations of Petitioner’s products infringed the asserted claims in four patents, including the ’856 patent, but not the asserted claims in the fifth patent. *Id.* at 22–23, 29, 41, 57, 78–79, 95, 107, 110, 123, 160, 166. Additionally, the court determined that Petitioner failed to demonstrate invalidity of the infringed patents with clear and convincing evidence. *Id.* at 23, 67, 83, 96–98, 112–13, 160.

As compensation for the infringement, the district court awarded past damages of about \$756 million. Ex. 1027, 149, 166. The court decided that Petitioner willfully infringed and enhanced the past damages by a multiple of 2.5 to “award lump sum past damages” of about \$1.9 billion. *Id.* at 161, 166; *see id.* at 162. Additionally, the court declined to enjoin Petitioner

---

<sup>4</sup> For Exhibit 1028 (Non-Confidential Brief for Defendant-Appellant Cisco Systems, Inc.), we cite to the page numbers appearing in the brief rather than the page numbers that Petitioner applied to the exhibit.

from future infringement. *Id.* at 162–64. Instead, the court determined that Patent Owner should receive an ongoing royalty (1) for a first three-year term between about \$168 million and about \$300 million per year and (2) for a second three-year term between about \$84 million and about \$150 million per year. *Id.* at 165–66. Hence, over six years the ongoing royalty should exceed \$756 million. *Id.* at 166; *see* Ex. 1028, 13. Thus, the court ruled that Patent Owner should receive at least \$2.6 billion. *See* Ex. 1027, 149, 161, 166; Ex. 1104, 2.

Petitioner appealed to the Federal Circuit. Ex. 1028, 4–5; Ex. 1104, 2.

In June 2022, the Federal Circuit vacated certain opinions and orders, including the opinion and order concerning infringement, validity, and damages. Ex. 1104, 2–3, 26–27. The Federal Circuit determined that the district judge “was disqualified from hearing the case once he became aware of his wife’s ownership of Cisco stock.” *Id.* at 2.

The Federal Circuit remanded the case for reassignment to a new district judge and directed the new district judge to “decide the case without regard for the vacated opinions and orders.” Ex. 1104, 2–3, 26–27. The Federal Circuit noted that the new district judge may (1) “resolve the case based on the transcript from the previous trial,” (2) “recall any witness,” and (3) “grant a new trial” depending on the circumstances. *Id.* at 19 & n.13.

In September 2022, Patent Owner filed a Petition for Writ of Certiorari with the Supreme Court. Ex. 2021, 1.

In December 2022, the Supreme Court denied the Petition for Writ of Certiorari. Ex. 3001.

## 2. BACKGROUND: THE PAN CASE

In March 2021, Patent Owner filed a complaint against PAN in the Eastern District of Virginia (“the PAN case”) alleging infringement of twelve patents. PAN Inst. Dec. 14. In its complaint, Patent Owner did not assert against PAN any of the four patents that Petitioner infringed according to the now-vacated opinion and order. *Id.*

In July 2021, Patent Owner filed an amended complaint in the PAN case alleging infringement of thirteen patents, i.e., the twelve previously asserted patents and a newly asserted patent. PAN Inst. Dec. 14. In its amended complaint, Patent Owner did not assert against PAN any of the four patents that Petitioner infringed according to the now-vacated opinion and order. *Id.* at 14–15.

In March 2022, the district court granted PAN’s motion to stay the PAN case pending resolution of Office proceedings where PAN challenged all claims in each of the thirteen patents asserted by Patent Owner in the PAN case. PAN Inst. Dec. 15.

## 3. REQUEST FOR DENIAL BASED ON ALLEGED HARASSMENT AND GAMESMANSHIP

Patent Owner alleges harassment and gamesmanship by PAN because PAN lacks a “stake in the outcome” of a patentability challenge to the ’856 patent and seeks “leverage” for an improper purpose. Opp. 3, 6. The PAN IPR Institution Decision addresses Patent Owner’s allegations about harassment and gamesmanship by PAN and, among other things, explains that PAN “expresses reasonable concern that Patent Owner may initiate additional litigation involving the ’856 patent.” *See* PAN Inst. Dec. 18–23. Also, as discussed above, PAN may want to “make sure it has the freedom

to operate” insofar as there are pending applications or patents in the same family as the ’856 patent. *See OpenSky*, IPR2021-01064, Paper 102 at 36; 37 C.F.R. § 42.73(d)(3); *supra* § III.B.6. Consistent with this, PAN states that it challenged the ’856 patent because the ’856 patent (1) “is directly related” to patents at issue in the PAN case and (2) “includes overlapping claims/specification/terms.” Ex. 2010, 1.

Additionally, the “AIA was designed to encourage the filing of meritorious patentability challenges, by any person who is not the patent owner, in an effort to further improve patent quality.” *Coalition for Affordable Drugs VI, LLC v. Celgene Corp.*, IPR2015-01092, Paper 19 at 4 (PTAB Sept. 25, 2015); *see Metacluster LT, UAB v. Bright Data Ltd.*, IPR2022-00687, Paper 11 at 41–42 (PTAB Oct. 7, 2022). “Under the IPR statute, there is no standing requirement for petitioners to request institution of IPR by the Board.” *ModernaTx, Inc. v. Arbutus Biopharma Corp.*, 18 F.4th 1352, 1358 (Fed. Cir. 2021).

Patent Owner alleges serial harassment and gamesmanship by Petitioner because Petitioner filed a serial petition challenging the same claims based on the same prior art and the same unpatentability theories as PAN when time barred by § 315(b). *See* Opp. 1, 3–8; Prelim. Resp. 49. But § 315(b) and § 315(c) permit an otherwise time-barred petitioner to file a petition when the petitioner seeks to join an instituted proceeding initiated by another petitioner. 35 U.S.C. § 315(b)–(c).

Patent Owner asserts that “multiple industry giants have now teamed up to crush a disruptive startup.” Opp. 7. But Patent Owner identifies no evidence of any cooperation, collaboration, or collusion between Petitioner and PAN (or anyone else) to take collective action to “crush” or otherwise

injure Patent Owner’s business. *See id.* at 5–8. Patent Owner filed separate infringement actions against Petitioner and PAN alleging infringement of multiple patents, and Petitioner and PAN filed separate petitions challenging claims in the ’856 patent. *See supra* §§ II.B, III.C.1–III.C.2. Moreover, the “mere existence of a trial verdict (whether by jury or from the bench) does not automatically make the filing of a subsequent IPR on the involved patent(s) an abuse of process.” *Patent Quality Assurance, LLC v. VLSI Tech. LLC*, IPR2021-01229, Paper 102 at 49 (PTAB Dec. 22, 2022). Indeed, “patents are often asserted, either in demand letters or in litigation, against multiple entities in serial fashion.” *Id.* “Both those entities subject to current or future assertions, or potential assertions, and the public, have a vested interest in canceling invalid patents.” *Id.*

For these reasons, Patent Owner’s arguments about harassment and gamesmanship do not warrant the exercise of discretion to deny institution.

#### 4. REQUEST FOR DENIAL BASED ON A PARALLEL LITIGATION

Patent Owner argues that we should exercise our discretion under § 314(a) to deny institution based on the Cisco case. *See Opp.* 10–14; 35 U.S.C. § 314(a). Petitioner argues that we should decline to exercise our discretion under § 314(a) to deny institution based on the Cisco case. *See Pet.* 19–26; Reply 5.

When deciding whether to exercise discretion under § 314(a) to deny institution, the Board has considered the status of litigation involving the parties in light of the AIA’s objective “to provide an effective and efficient alternative to district court litigation.” *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 12, 19–20 (PTAB Sept. 12, 2018) (precedential). The Board has set forth the following nonexclusive factors to

consider when determining whether to exercise discretion under § 314(a) to deny institution due to the advanced state of a parallel litigation:

- (1) whether the court granted a stay or evidence exists that one may be granted if the Board institutes a trial;
- (2) the proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
- (3) the investment in the parallel litigation by the court and the parties;
- (4) the overlap in the issues raised by the petition and the issues in the parallel litigation;
- (5) whether the petitioner and the defendant in the parallel litigation are the same party; and
- (6) other circumstances that impact the Board's exercise of discretion, including the merits.

*Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”).

These factors “relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Fintiv*, IPR2020-00019, Paper 11 at 6. Further, *Fintiv* instructs that the Board should take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.*; see PTAB Consolidated Trial Practice Guide at 55–56, 58 (Nov. 2019) (“CTPG”).<sup>5</sup>

---

<sup>5</sup> Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

We also follow the Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022) (“Interim Procedure”).<sup>6</sup>

The Interim Procedure explains that “the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.” Interim Procedure at 3 (citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A)); *see id.* at 7, 9. The Interim Procedure also explains that such a stipulation (a *Sotera* stipulation) “mitigates concerns of potentially conflicting decisions and duplicative efforts between the district court and the PTAB.” *Id.* at 7.

Here, Petitioner stipulates as follows:

If the Board institutes trial, Petitioner will not pursue, in any further proceedings at the district court, the specific grounds asserted in the inter partes review, or on any other ground that was raised or could have been reasonably raised in an IPR (i.e., any ground that could be raised under §§ 102 or 103 on the basis of prior art patent or printed publications).

Pet. 22 (citing *Sotera*, IPR2020-01019, Paper 12 at 18–19).

Because Petitioner provides a *Sotera* stipulation, we decline to exercise our discretion under § 314(a) to deny institution based on the Cisco case. *See* Interim Procedure at 3, 7, 9.

---

<sup>6</sup> Available at [https://www.uspto.gov/sites/default/files/documents/interim\\_proc\\_discretionary\\_denials\\_aia\\_parallel\\_district\\_court\\_litigation\\_memo\\_20220621\\_.pdf](https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf).

#### 5. REQUEST FOR DENIAL BASED ON A FOLLOW-ON PETITION

Patent Owner urges the Board to exercise discretion under § 314(a) to deny institution in light of the *General Plastic* factors concerning a follow-on petition. *See* Opp. 14–15.

When deciding whether to exercise discretion under § 314(a) to deny institution based on a follow-on petition, the Board has identified the following nonexclusive factors to consider:

- (1) whether the same petitioner previously filed a petition directed to the same claims of the same patent;
- (2) whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;
- (3) whether at the time of filing of the second petition the petitioner already received the patent owner’s preliminary response to the first petition or received the Board’s decision on whether to institute review in the first petition;
- (4) the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;
- (5) whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
- (6) the finite resources of the Board; and
- (7) the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

*Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 9–10, 16 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i) (“*General Plastic*”). The *General Plastic* factors “provide a useful

framework for analyzing” a proceeding where “a different petitioner file[s] a petition challenging a patent that had been challenged already by previous petitions.” *NetApp Inc. v. Realtime Data LLC*, IPR2017-01195, Paper 9 at 10 (PTAB Oct. 12, 2017).

Additionally, “when different petitioners challenge the same patent,” the Board has considered “any relationship between those petitioners when weighing the *General Plastic* factors.” *Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 at 9 (PTAB Apr. 2, 2019) (precedential) (“*Valve*”).

Citing *Uniloc*, Patent Owner asserts that the “majority of the *General Plastic* factors” weigh in favor of denying institution. *See* Opp. 14–15 (citing *Uniloc*, IPR2020-00854, Paper 9 at 9–12). In particular, Patent Owner contends that factors (2)–(5) concern “knowledge of the prior art, unexplained delays in filing, and tailoring” and “weigh strongly in favor of denial” because:

- (i) Petitioner “could have, but chose not to, challenge validity based on Buruganahalli during the prior trial”;
- (ii) Petitioner “has not provided any explanation for its delay” in filing the Petition; and
- (iii) Petitioner received Patent Owner’s Preliminary Response in the PAN IPR and the PAN IPR Institution Decision and “then tailor[ed] its own petition with new evidence and issues of secondary considerations.”

Opp. 15; *see id.* at 1, 4, 9–10. Additionally, Patent Owner contends that factor (6), concerning the Board’s finite resources weighs, in favor of denial because Petitioner may continue the proceeding “even after settlement with the primary petitioner.” *Id.* (quoting *Uniloc*, IPR2020-00854, Paper 9 at 12).

For the reasons explained below, we disagree with Patent Owner that the “majority of the *General Plastic* factors” weigh in favor of denying institution. *See* Opp. 14–15.

(a) Factor (1): Previous Petition

For factor (1), Petitioner did not previously file a petition requesting an *inter partes* review of any claim in the ’856 patent. We recognize, however, that *General Plastic* has not been limited to proceedings where the same petitioner files multiple, staggered petitions and that “when different petitioners challenge the same patent,” we should consider “any relationship between those petitioners when weighing the *General Plastic* factors.” *See, e.g., Valve*, IPR2019-00062, Paper 11 at 9.

In *Valve*, the Board noted that the petitioner Valve and a previous petitioner HTC “were co-defendants in the District Court litigation and were accused of infringing the [challenged] patent based on HTC’s VIVE devices that incorporate technology licensed from Valve.” *Valve*, IPR2019-00062, Paper 11 at 1, 10. Based on those particular facts, the Board determined that there was a “significant relationship” between Valve and HTC “with respect to Patent Owner’s assertion of the [challenged] patent.” *Id.* Here, in contrast to *Valve*, nothing in the current record indicates that there is a “significant relationship” between Petitioner and PAN “with respect to Patent Owner’s assertion of” the ’856 patent.

That Petitioner copied PAN’s petition to present substantively identical challenges to claims 1, 24, and 25 in the ’856 patent does not create a “significant relationship” between Petitioner and PAN. Copying a previously instituted petition is “common in the joinder context” and “an accepted approach” because it is an efficient way to satisfy § 315(c)’s

requirement to file a petition that “warrants the institution of an inter partes review.” *Expedia, Inc. v. Express Mobile, Inc.*, IPR2022-00785, Paper 16 at 7–9 (PTAB Sept. 27, 2022).

For these reasons, factor (1) does not favor discretionary denial.

(b) Factor (2): Knowledge of the Prior Art

For factor (2), Petitioner explains that (1) Patent Owner served “a complaint alleging infringement of the ’856 patent” in March 2018 and (2) Patent Owner did not serve any documents mentioning Buruganahalli until more than seven months after § 315(b)’s one-year time bar began in March 2019, i.e., not until November 2019. Pet. 25; Reply 4. Patent Owner does not dispute that it served documents mentioning Buruganahalli in November 2019. *See* Prelim. Resp. 31; Opp. 9; Ex. 2007 ¶¶ 2–3 (discussing November 2019 service dates in the Cisco case for materials from *Centripetal Networks, Inc. v. Keysight Techs., Inc.*, No. 2:17-cv-00383). In light of Petitioner’s explanation, factor (2) does not favor discretionary denial.

(c) Factor (3): Roadmapping Concerns

Relevant to factor (3), the Board in *General Plastic* discussed the “potential for abuse” due to multiple, staggered petitions “challenging the same patent and same claims.” *Gen. Plastic*, IPR2016-01357, Paper 19 at 17. The Board said, “The absence of any restrictions on follow-on petitions would allow petitioners the opportunity to strategically stage their prior art and arguments in multiple petitions, using our decisions as a roadmap, until a ground is found that results in the grant of review.” *Id.* But roadmapping concerns are “minimized” when “a petitioner files a later petition that raises unpatentability challenges substantially overlapping with

those” in an earlier petition and “the later petition is not refined based on lessons learned from later developments.” *Code200, UAB v. Bright Data Ltd.*, IPR2022-00861, Paper 18 at 5 (PTAB Aug. 23, 2022) (precedential) (“*Code200*”); *see Expedia*, IPR2022-00785, Paper 16 at 9.

Here, Petitioner presents substantively identical challenges to claims 1, 24, and 25 in the ’856 patent based on the same prior art and the same unpatentability theories as PAN presents in the PAN IPR. *Compare* Pet. 34–67, *with* PAN Pet. 18–50; *see* Prelim. Resp. 34, 37. And as discussed above, copying a previously instituted petition is “common in the joinder context” and “an accepted approach.” *Expedia*, IPR2022-00785, Paper 16 at 7–9; *see supra* § III.C.5(a). Further, any differences between the Petition and PAN’s petition did not result from roadmapping to correct a deficiency in PAN’s petition because the Board instituted review in the PAN IPR. *See Code200*, IPR2022-00861, Paper 18 at 5; *Gen. Plastic*, IPR2016-01357, Paper 19 at 17.

Additionally, we disagree with Patent Owner that Petitioner raises new “issues of secondary considerations.” *See* Opp. 1, 4, 15. In the PAN IPR, Patent Owner criticized PAN’s petition for giving “short shrift” to “known evidence of objective indicia of nonobviousness (secondary considerations)” from the Cisco case. PAN Inst. Dec. 17, 74. Further, Patent Owner asserted that the following objective evidence demonstrated nonobviousness: (i) long-felt need; (ii) industry praise; and (iii) copying. *Id.* at 74–78.

On the preliminary record in the PAN IPR, the Board determined that Patent Owner had not “shown sufficiently that a presumption of nexus should apply or that a nexus exists between the asserted objective evidence

and the merits of the claimed invention.” PAN Inst. Dec. 74. Further, the Board addressed deficiencies in Patent Owner’s evidence and arguments regarding the asserted objective evidence. *Id.* at 74–78.

Here, Petitioner similarly addresses deficiencies in Patent Owner’s evidence and arguments regarding the asserted objective evidence, including evidence that Patent Owner introduced during trial in the Cisco case but withheld from the Board in the PAN IPR. *See* Pet. 67–75. Petitioner explains that it addresses arguments regarding secondary considerations that “it can reasonably foresee” Patent Owner making and that “PAN could not.” Mot. 7 n.2. As the defendant in the Cisco case, Petitioner has a better ability than PAN to discuss evidence that Patent Owner introduced during trial in the Cisco case.

Further, as Petitioner asserts, nonbinding Board precedent supports a petitioner addressing known evidence of secondary considerations. *See* Reply 2 (citing *Stryker Corp. v. KFx Med., LLC*, IPR2019-00817, Paper 10 at 27–29 (PTAB Sept. 16, 2019)). For instance, in *Stryker* the Board said, “We have cautioned petitioners in prior proceedings that petitions may be denied if they do not address known evidence of secondary considerations.” *Stryker*, IPR2019-00817, Paper 10 at 28–29. In the PAN IPR, Patent Owner criticized PAN for “failure to address known objective evidence of nonobviousness” from the Cisco case. *Palo Alto Networks*, IPR2022-00182, Paper 6 (Patent Owner’s Preliminary Response) at 53, 56–57 (citing *Stryker*, IPR2019-00817, Paper 10 at 27–29); Paper 13 (Patent Owner’s Request for Rehearing) at 15 (citing *Stryker*, IPR2019-00817, Paper 10 at 27–29).

A “patentee has the burden of going forward with rebuttal evidence,” e.g., evidence of secondary considerations. *See Pfizer, Inc. v. Apotex, Inc.*,

480 F.3d 1348, 1360 (Fed. Cir. 2007). Hence, the only “issues of secondary considerations” are the issues that Patent Owner raises.

In the PAN IPR, Patent Owner raises the following “issues of secondary considerations”: (i) long-felt need; (ii) industry praise; and (iii) copying. *See* PAN Inst. Dec. 74–78; *Palo Alto Networks*, IPR2022-00182, Paper 6 (Patent Owner’s Preliminary Response) at 54–56; Paper 24 (Patent Owner’s Response) at 68–70; Paper 36 (Patent Owner’s Sur-reply) at 24–26. Before reaching a conclusion about the obviousness/nonobviousness of claims 1, 24, and 25 in the ’856 patent, the Board will consider the same “issues of secondary considerations” regardless of joinder and what Petitioner says about secondary considerations. By addressing deficiencies in Patent Owner’s evidence and arguments regarding secondary considerations, Petitioner does not raise a new issue of patentability that would prevent joinder to the PAN IPR.

For these reasons, factor (3) does not favor discretionary denial.

(d) Factors (4) and (5): Delay and Adequate Explanation

For factors (4) and (5), Petitioner explains that it did not receive any documents mentioning Buruganahalli until more than seven months after § 315(b)’s one-year time bar began in March 2019, i.e., not until November 2019. *See* Pet. 25; Reply 4. Due to § 315(b)’s one-year time bar, Petitioner did not have an opportunity to file a petition challenging claims in the ’856 patent based on Buruganahalli until we instituted review in the PAN IPR. *See* 35 U.S.C. § 315(b)–(c).

As for the prior art Petitioner presented during trial in the Cisco case, we will not second guess Petitioner’s trial strategy. *See Intel Corp. v. VLSI Tech. LLC*, IPR2022-00479, Paper 13 at 12–13 (PTAB June 6, 2022).

Instead, we focus on the fact that the Cisco case did not—and will not—resolve the issues presented here and in the PAN IPR because the prior art asserted here was not asserted in the Cisco case, and Petitioner provides a *Sotera* stipulation, ensuring that it will not be added to the Cisco case. *Id.* at 13; *see* PAN Inst. Dec. 26; Pet. 20 (explaining that the “district court considered only system art and did not review the invalidity issue with respect to any prior art patents or printed publications”); Mot. 8 (discussing Petitioner’s *Sotera* stipulation); *supra* § III.C.4. Allowing the Board to resolve issues presented only to the Board “best balances the desires to improve patent quality and patent-system efficiency against the potential for abuse of the review process by repeated attacks on patents.” *See Code200*, IPR2022-00861, Paper 18 at 4–5.

For these reasons, factors (4) and (5) do not favor discretionary denial.

(e) Factors (6) and (7): Impact on Board Operations

For factors (6) and (7), joining Petitioner to the PAN IPR will not adversely impact the Board’s resources or the requirement to issue a final written decision within a year of institution. The Board will decide substantively identical challenges to the same claims in the ’856 patent based on the same prior art and the same unpatentability theories as PAN presents in the PAN IPR. Joinder will require little, if any, additional Board effort.

For factor (6), Patent Owner cites *Uniloc* as supporting its position. Opp. 15. But the facts in *Uniloc* differ materially from the facts here due to the joinder applicant’s multiple, staggered petitions in *Uniloc*.

There, the joinder applicant, Apple, filed a first petition challenging certain claims in a patent based on certain prior art. *Uniloc*, IPR2020-00854,

Paper 9 at 8; *see also Apple Inc. v. Uniloc 2017 LLC*, IPR2019-00056, Paper 1 at 4 (PTAB Oct. 17, 2018). The Board denied Apple’s first petition because the Board decided that Apple failed to satisfy the “reasonable likelihood” standard for instituting trial. *Uniloc*, IPR2020-00854, Paper 9 at 6. Subsequently, Microsoft filed a petition challenging a subset of the claims that Apple had challenged based on different prior art than Apple had presented, and the Board instituted review. *Id.* at 2–3, 8; *see Apple Inc. v. Uniloc 2017 LLC*, IPR2019-00056, Paper 7 at 7 (PTAB Apr. 29, 2019). Then, Apple filed a second petition substantively identical to Microsoft’s petition that asserted the same challenges based on the same prior art as Microsoft along with a motion for joinder to the Microsoft IPR. *Uniloc*, IPR2020-00854, Paper 9 at 1, 3–4. The Board exercised discretion under § 314(a) to deny Apple’s second petition because the Board reasoned that Apple advanced “the kind of serial attack that *General Plastic* was intended to address.” *Id.* at 4, 13.

Here, unlike Apple in *Uniloc*, Petitioner did not previously file a petition requesting an *inter partes* review of any claim in the ’856 patent. Petitioner has not advanced “the kind of serial attack that *General Plastic* was intended to address.” *See Gen. Plastic*, IPR2016-01357, Paper 19 at 16–18.

For factor (6), “the Board’s mission ‘to improve patent quality and restore confidence in the presumption of validity that comes with issued patents’ outweighs the impact on Board resources needed to evaluate the merits of a petition.” *Code200*, IPR2022-00861, Paper 18 at 6 (quoting *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 272 (2016)).

For factor (7), joinder will require little, if any, additional Board effort and will not affect when a final determination issues.

For these reasons, factors (6) and (7) do not favor discretionary denial.

(f) Summary

In summary, after analyzing the *General Plastic* factors, we determine that, on balance, the factors do not favor denying an *inter partes* review. Hence, we decline to exercise our discretion under § 314(a) to deny institution.

*D. Whether to Grant Petitioner’s Motion for Joinder*

1. INTRODUCTION

As the movant, Petitioner “has the burden of proof to establish that it is entitled to the requested relief.” 37 C.F.R. § 42.20(c); *see* 37 C.F.R. § 42.122(b).

A joinder motion should:

- (1) “set forth the reasons joinder is appropriate”;
- (2) “identify any new grounds of unpatentability asserted in the petition”; and
- (3) “explain what impact (if any) joinder would have on the trial schedule for the existing review.”

*Hyundai Motor Am. v. StratosAudio, Inc.*, IPR2022-00224, Paper 11 at 7 (PTAB June 2, 2022) (citing *Kyocera Corp. v. SoftView LLC*, IPR2013-00004, Paper 15 at 4 (PTAB Apr. 24, 2013)).

2. THE REASONS JOINDER IS APPROPRIATE

(a) Petitioner’s Arguments Why Joinder Is Appropriate

Regarding timeliness, Petitioner asserts that it timely filed its joinder motion “no later than one month after” the Board instituted review in the PAN IPR. Mot. 6 (citing 37 C.F.R. § 42.122(b)).

Regarding the substance of the patentability challenge, Petitioner asserts that the Petition “involves the same patent, challenges the same claims, and is based on the same grounds and evidence relied upon” in PAN’s petition. Mot. 7. Petitioner explains that “[o]nly minor changes were necessary to properly identify the filing party and to update the analysis of discretionary denial and secondary consideration factors in light of” Petitioner’s different circumstances. *Id.* Petitioner also asserts that the Petition does not present “new issues that might complicate or delay” the PAN IPR. *Id.* at 7–8 (quoting *Enzymotec Ltd. v. Neptune Techs. & Bioresources, Inc.*, IPR2014-00556, Paper 19 at 6 (PTAB July 9, 2014)).

Further, Petitioner asserts that joinder does not present “a risk of duplicative efforts between” the Board and the district court because:

- (1) the “district court considered only system art and did not review the invalidity issue with respect to any prior art patents or printed publications”; and
- (2) Petitioner provides a *Sotera* stipulation.

Mot. 8 (citing Pet. 22–23; Ex. 1027, 57–59).

Additionally, Petitioner contends that Patent Owner “has intimated that other industry participants allegedly infringe the ’856 patent.” Mot. 9. Petitioner also contends that “there is substantial public interest in ‘permitting full and free competition in the use of ideas which are in reality a part of the public domain.’” *Id.* (quoting *Lear, Inc. v. Adkins*, 395 U.S. 653, 670 (1969)).

(b) Patent Owner’s Arguments Why Joinder Is Not Appropriate

Patent Owner disputes that joinder is appropriate. *See* Opp. 8–10. Quoting the Consolidated Trial Practice Guide, Patent Owner asserts that joinder of a time-barred party is “only permitted ‘in extremely limited

circumstances’ in a ‘narrow exercise of discretion’ to prevent ‘harassment’ and ‘attempts to game the system’” by a party. *Id.* at 8 (quoting CTPG at 77). Patent Owner asserts that the circumstances here do not fall within those limited circumstances. *See id.* at 8–10.

Quoting *Uniloc*, Patent Owner asserts that “the Board would expend resources in continuing the proceeding” that “would otherwise be terminated” if PAN settled and this “weighs in favor of denying institution of the proceeding.” Opp. 10 (quoting *Uniloc*, IPR2020-00854, Paper 9 at 12).

Additionally, Patent Owner contends that joining Petitioner to the PAN IPR is “highly prejudicial” and that Petitioner fails to explain why “fairness justifies” the “extreme prejudice” of forcing Patent Owner to “relitigate validity” of a “fully litigated” patent. Opp. 9–10; Prelim. Resp. 28–29; *see* Opp. 6.

(c) Analysis

We agree with Petitioner that it timely filed its joinder motion “no later than one month after” the Board instituted review in the PAN IPR. *See* 37 C.F.R. § 42.122(b); Mot. 6. The Board instituted review in the PAN IPR on May 25, 2022, and Petitioner filed its joinder motion on June 24, 2022.

We agree with Petitioner that the Petition “involves the same patent, challenges the same claims, and is based on the same grounds and evidence relied upon” in PAN’s petition. *Compare* Pet. 34–67, *with* PAN Pet. 18–50; *see* Mot. 7. Patent Owner concedes that Petitioner “copies the merits arguments of PAN’s petition” and “asserts the same grounds as PAN.” Prelim. Resp. 34, 37.

For the reasons discussed above and below, we agree with Petitioner that the Petition does not present “new issues that might complicate or delay” the PAN IPR. *See* Mot. 7–8; *supra* § III.C.5(c); *infra* §§ III.D.3–III.D.4.

Additionally, we agree with Petitioner that joinder does not present “a risk of duplicative efforts between” the Board and the district court because, among other things, Petitioner provides a *Sotera* stipulation. *See* Pet. 22; Mot. 8; *supra* § III.C.4.

Although Patent Owner relies on the Consolidated Trial Practice Guide, the Guide does not address the circumstances here. *See* Opp. 8; CTPG at 76–77. As support for the portions of the Guide that Patent Owner quotes, the Guide cites the Precedential Opinion Panel (“POP”) decision in *Proppant Express Investments, LLC v. Oren Technologies, LLC*, IPR2018-00914, Paper 38 (PTAB Mar. 13, 2019). CTPG at 76–77. The circumstances in *Proppant Express* differ materially from the circumstances here.

There, the petitioner (1) filed a first petition that resulted in an instituted proceeding for a patent, (2) filed a second petition challenging an additional claim in the patent after § 315(b)’s one-year deadline, and (3) moved to join the new proceeding to the instituted proceeding. *Proppant Express*, IPR2018-00914, Paper 38 at 2–3. Addressing that situation, the POP noted that “when an otherwise time-barred petitioner requests same party and/or issue joinder, the Board will exercise this discretion only in limited circumstances,” namely, “where fairness requires it and to avoid undue prejudice to a party.” *Id.* at 19; *see id.* at 3, 11, 16.

Here, unlike the petitioner in *Proppant Express*, Petitioner does not request “same party and/or issue joinder.” *See* Mot. 7–8; *infra* § III.D.3. Hence, we do not view *Proppant Express* or the Consolidated Trial Practice Guide as constraining our discretion here. *See Intel*, IPR2022-00479, Paper 13 at 18. Further, in *Facebook* the Federal Circuit decided that the POP’s “conclusion, which allowed same-party joinder, is incorrect.” *Facebook*, 973 F.3d at 1335.

Patent Owner misplaces its reliance on *Uniloc*. *See* Opp. 10. As discussed above, unlike Apple in *Uniloc*, Petitioner did not previously file a petition requesting an *inter partes* review of any claim in the ’856 patent. *See supra* § III.C.5(e).

As for Patent Owner’s contention that it faces “extreme prejudice” by having to “relitigate validity” of a “fully litigated” patent, there is no judicial determination upholding the ’856 patent’s validity. *See* Opp. 9–10; Prelim. Resp. 28–29; Ex. 1104, 2–3, 26–27. The Federal Circuit (1) vacated the opinion and order concerning infringement, validity, and damages, (2) remanded the case for reassignment to a new district judge, and (3) directed the new district judge to “decide the case without regard for” the vacated opinion and order. Ex. 1104, 2–3, 26–27. Litigation concerning the ’856 patent’s validity continues, and Petitioner “will continue arguing for the claims to be held invalid” subject to its *Sotera* stipulation. *See* Reply 3.

Additionally, the Cisco case did not—and will not—resolve the issues presented here and in the PAN IPR because the prior art asserted here was not asserted in the Cisco case, and Petitioner provides a *Sotera* stipulation, ensuring that it will not be added to the Cisco case. *See* PAN Inst. Dec. 26; Pet. 20 (explaining that the “district court considered only system art and did

not review the invalidity issue with respect to any prior art patents or printed publications”); Mot. 8 (discussing Petitioner’s *Sotera* stipulation); *supra* § III.C.4. So, joining Petitioner to the PAN IPR will not result in relitigation of validity/patentability issues or duplication of effort.

Further, Patent Owner will suffer no prejudice from joining Petitioner to the PAN IPR because Petitioner presents substantively identical challenges to the same claims in the ’856 patent based on the same prior art and the same unpatentability theories as PAN presents in the PAN IPR. Patent Owner will address that prior art and respond to those unpatentability theories regardless of joinder.

### 3. WHETHER PETITIONER RAISES NEW ISSUES

Petitioner asserts that the Petition “does not present any new grounds or arguments regarding unpatentability” and is “substantively identical” to PAN’s petition. Mot. 10. According to Petitioner, “The Board ‘routinely grants motions for joinder where the party seeking joinder introduces identical arguments and the same grounds raised in the existing proceeding.’” *Id.* at 10–11 (quoting *BlackBerry Corp. v. Uniloc 2017 LLC*, IPR2019-01283, Paper 10 at 8 (PTAB Nov. 5, 2019)).

Citing *Facebook*, Patent Owner asserts that Petitioner’s joinder motion “must be denied under controlling precedent” because § 315(c) “does not authorize the joinder of new issues.” Opp. 4 (citing *Facebook*, 973 F.3d at 1333). In particular, Patent Owner argues that Petitioner raises new “issues of secondary considerations.” *Id.* at 1; *see id.* at 4, 15.

For the reasons discussed above, we disagree that Petitioner raises new “issues of secondary considerations.” *See supra* § III.C.5(c). Instead, Petitioner presents substantively identical challenges to claims 1, 24, and 25

in the '856 patent based on the same prior art and the same unpatentability theories as PAN presents in the PAN IPR. *Compare* Pet. 34–67, with PAN Pet. 18–50; *see* Prelim. Resp. 34, 37. The only “issues of secondary considerations” are the issues that Patent Owner raises. *See* PAN Inst. Dec. 74–78; *Palo Alto Networks*, IPR2022-00182, Paper 6 (Patent Owner’s Preliminary Response) at 54–56; Paper 24 (Patent Owner’s Response) at 68–70; Paper 36 (Patent Owner’s Sur-reply) at 24–26.

Further, the facts in *Facebook* differ materially from the facts here due to the joinder applicant’s multiple, staggered petitions in *Facebook*. There, the joinder applicant Facebook (1) filed a first petition challenging certain claims in a patent that resulted in an instituted proceeding for the patent, (2) filed a second petition challenging additional claims in the patent after § 315(b)’s one-year deadline, and (3) moved to join the new proceeding to the instituted proceeding. *Facebook*, 973 F.3d at 1327–28. The Board instituted review of Facebook’s late-filed petition and granted Facebook’s joinder motion. *Id.* at 1328.

On appeal, the Federal Circuit considered whether § 315(c) authorizes (1) same-party joinder, i.e., “the joinder of a person as a party to a proceeding in which it is already a party,” and (2) new-issue joinder, e.g., the joinder of “new claims or new grounds.” *See Facebook*, 973 F.3d at 1332–38. The Federal Circuit decided that § 315(c) does not authorize (1) same-party joinder or (2) new-issue joinder. *Id.* at 1335–36, 1338. For new-issue joinder, the Federal Circuit explained that an instituted proceeding subject to § 315(c) is “governed by its own petition” and “confined to the claims and grounds” in that petition. *Id.* at 1336.

Here, in contrast to *Facebook*, the Petition is “confined to the claims and grounds” in PAN’s petition, and we agree with Petitioner that the Petition is “substantively identical” to PAN’s petition. *Compare* Pet. 34–67, with PAN Pet. 18–50; *see* Prelim. Resp. 34, 37; Mot. 10. Accordingly, we disagree with Patent Owner that Petitioner’s joinder motion “must be denied under controlling precedent.” *See* Opp. 4.

4. THE IMPACT JOINDER WOULD HAVE  
ON THE TRIAL SCHEDULE IN THE PAN IPR

If joined to the PAN IPR, Petitioner agrees that:

- (1) Petitioner will “assume an understudy role to PAN,” and “if PAN no longer participates,” Petitioner will “coordinate with the Board and any other joined parties to identify a new lead petitioner”;
- (2) Petitioner’s “positions and interests in the joined proceeding will be represented by the filings of PAN unless a filing solely concerns issues that do not involve PAN”;
- (3) Petitioner will “not be permitted to raise any new grounds not already instituted by the Board in the PAN IPR, or introduce any argument or discovery not already introduced by PAN”;
- (4) Petitioner will “be bound by any agreement between Patent Owner and PAN concerning discovery and/or depositions in the PAN IPR”;
- (5) at any deposition, Petitioner will “not receive any direct examination, cross-examination, or redirect time beyond that permitted in this proceeding for PAN alone under either 37 C.F.R. § 42.53 or any agreement between Patent Owner and PAN”; and
- (6) at the oral hearing, “PAN will be responsible for the presentation before the Board,” and Petitioner “when in the understudy role, will not request any additional time

to independently argue before the Board or attempt to submit its own demonstratives.”

Mot. 3–4, 8–9, 12–13; Reply 1; *see* Pet. 23. Additionally, Petitioner “expressly consents to the trial schedule issued in the PAN IPR.” Mot. 11.

Petitioner contends that “joinder will not negatively impact the trial schedule of the PAN IPR.” Mot. 11.

Patent Owner does not contend that joinder will negatively impact the trial schedule of the PAN IPR. *See, e.g.*, Opp. 4–15.

In light of the agreements discussed above and Petitioner’s consent to the trial schedule of the PAN IPR, we agree with Petitioner that “joinder will not negatively impact the trial schedule of the PAN IPR.” *See* Mot. 3–4, 8–9, 11–13; Reply 1.

#### 5. CONCLUSION

For the reasons discussed above, we determine that it is appropriate under the circumstances here to join Petitioner as a party to the PAN IPR. *See* §§ III.D.2–III.D.4. The estoppel provisions of 35 U.S.C. § 315(e) will apply to Petitioner.

#### IV. CONCLUSION

For the reasons discussed above and in the PAN IPR Institution Decision, we determine that there is a reasonable likelihood Petitioner would prevail with respect to at least one claim challenged in the Petition. We conclude that instituting review in this proceeding is in the interest of efficient administration of the Office and the integrity of the patent system. *See* 35 U.S.C. § 316(b). Hence, we institute an *inter partes* review of all challenged claims on all challenges included in the Petition. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018) (noting that the language of

35 U.S.C. § 314(b) “indicates a binary choice—either institute review or don’t”); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute as requiring “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”). Additionally, we decline to exercise our discretion under § 314(a) to deny institution.

At this preliminary stage, we have not made a final determination about the patentability of any challenged claim, the construction of any claim term, phrase, or limitation, or any other legal or factual issue.

Upon considering the parties’ arguments and the evidence presented, we determine that it is appropriate under the circumstances here to join Petitioner as a party to the PAN IPR. Joinder to the PAN IPR will result in the just, speedy, and inexpensive resolution of Petitioner’s challenge. *See* 37 C.F.R. § 42.1(b). Thus, for the reasons discussed above, we grant Petitioner’s Motion for Joinder and join Petitioner as a party to the PAN IPR.

## V. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1, 24, and 25 in the ’856 patent is instituted on all challenges included in the Petition;

FURTHER ORDERED that, according to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial that commences on the entry date of this Decision;

FURTHER ORDERED that Petitioner's Motion for Joinder with IPR2022-00182 is granted, and Petitioner is hereby joined as a petitioner in IPR2022-00182;

FURTHER ORDERED that the instituted grounds for trial in IPR2022-00182 are unchanged, and no other grounds are added in IPR2022-00182;

FURTHER ORDERED that the Scheduling Order entered in IPR2022-00182 (Paper 12), including any schedule changes allowed by the Scheduling Order and agreed by the parties in that proceeding, shall continue to govern the trial schedule in IPR2022-00182;

FURTHER ORDERED that Petitioner's role in IPR2022-00182 shall be limited as stated in Petitioner's Motion for Joinder (Paper 3) unless and until Palo Alto Networks, Inc. is terminated from IPR2022-00182;

FURTHER ORDERED that the case caption in IPR2022-00182 shall be changed to reflect joinder of Cisco Systems, Inc. as a petitioner according to the attached example;

FURTHER ORDERED that a copy of this Decision be entered into the record of IPR2022-00182; and

FURTHER ORDERED that this proceeding is terminated under 37 C.F.R. § 42.72 and 37 C.F.R. § 42.122, and all further filings shall be made in IPR2022-00182.

IPR2022-01151  
Patent 9,917,856 B2

For PETITIONER:

Theodore M. Foster  
David L. McCombs  
Gregory P. Huh  
HAYNES AND BOONE, LLP  
ipr.theo.foster@haynesboone.com  
david.mccombs.ipr@haynesboone.com  
gregory.huh.ipr@haynesboone.com

For PATENT OWNER:

James Hannah  
Jeffrey H. Price  
Jenna Fuller  
KRAMER LEVIN NAFTALIS & FRANKEL LLP  
jhannah@kramerlevin.com  
jprice@kramerlevin.com  
jfuller@kramerlevin.com  
svdocketing@kramerlevin.com

Bradley C. Wright  
Scott M. Kelly  
John. R. Hutchins  
BANNER & WITCOFF, LTD.  
bwright@bannerwitcoff.com  
skelly@bannerwitcoff.com  
jhutchins@bannerwitcoff.com

[Example Case Caption]

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

PALO ALTO NETWORKS, INC. and CISCO SYSTEMS, INC.,  
Petitioners,\*

v.

CENTRIPETAL NETWORKS, INC.,  
Patent Owner.

---

IPR2022-00182  
Patent 9,917,856 B2

---

---

\* Cisco Systems, Inc. filed a petition and a motion for joinder in IPR2022-01151 and has been joined as a petitioner in this proceeding.