

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

QUALCOMM INCORPORATED,  
Petitioner,<sup>1</sup>

v.

NETWORK SYSTEM TECHNOLOGIES, LLC,  
Patent Owner.

---

IPR2024-00338  
Patent 7,373,449 B2

---

Before CHARLES J. BOUDREAU, STEVEN M. AMUNDSON, and  
IFTIKHAR AHMED, *Administrative Patent Judges*.

AMUNDSON, *Administrative Patent Judge*.

DECISION  
Denying Patent Owner's Request on Rehearing  
of Order Denying Patent Owner's Motion to Strike  
*37 C.F.R. § 42.71(d)*

---

<sup>1</sup> Qualcomm Incorporated filed a petition and a motion for joinder in IPR2024-01081 and has been joined as a petitioner in this proceeding. *See* Paper 16. After Qualcomm Incorporated was joined as a petitioner, original Petitioner Samsung Electronics Co., Ltd. was terminated from the proceeding. *See* Paper 17.

## I. INTRODUCTION

Network System Technologies, LLC (“Patent Owner” or “NST”) requests rehearing of the Board’s Order (Paper 64) denying Patent Owner’s motion to strike. Paper 65 (“Req. Reh’g”). For the reasons explained below, we deny Patent Owner’s rehearing request.

## II. BACKGROUND

### *A. Procedural History*

In December 2023, Samsung Electronics Co., Ltd. (“Samsung”) initiated this proceeding by filing a Petition for *inter partes* review of claims 1–6 and 9–16 in U.S. Patent No. 7,373,449 B2 (“the ’449 patent”) (Exhibit 1001) under 35 U.S.C. §§ 311–319. *See* Paper 2 (“Pet.”). The Petition included the following challenges to patentability:

| <b>Claim(s) Challenged</b> | <b>35 U.S.C. §</b> | <b>Reference(s)/Basis</b>                     |
|----------------------------|--------------------|-----------------------------------------------|
| 1–6, 9–16                  | 103(a)             | Goossens2002, <sup>2</sup> Drake <sup>3</sup> |
| 1–6, 9–16                  | 103(a)             | Goossens2003, <sup>4</sup> Drake              |

Pet. 9, 15–68.

In March 2024, Patent Owner filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). Three days before filing the Preliminary Response,

---

<sup>2</sup> Kees Goossens et al., *Networks on Silicon: Combining Best-Effort and Guaranteed Services*, in Proceedings of the 2002 Design, Automation and Test in Europe Conference and Exhibition (DATE’02), 1–3 (March 2002) (Exhibit 1005).

<sup>3</sup> U.S. Patent No. 5,461,611, titled “Quality of Service Management for Source Routing Multimedia Packet Networks,” filed on June 7, 1994, and issued on October 24, 1995, to John E. Drake, Jr. et al. (Exhibit 1006).

<sup>4</sup> Kees Goossens et al., *Guaranteeing the Quality of Services in Networks on Chip*, Chapter 4 in *Networks on Chip*, Kluwer Academic Publishers (Axel Jantsch & Hannu Tenhunen eds., 2003) (Exhibit 1007).

however, Patent Owner statutorily disclaimed claims 1 and 3–5.

Ex. 2062, 3; *see* Prelim. Resp. 13 n.1, 41 n.4.

In April 2024, after receiving Board authorization, Samsung filed a Preliminary Reply. Paper 8 (“Prelim. Reply”); *see* Ex. 3001.

In May 2024, Patent Owner filed a Preliminary Sur-reply. Paper 9 (“Prelim. Sur-reply”).

In June 2024, after analyzing the arguments and evidence presented by the parties, the Board instituted an *inter partes* review of all challenged claims based on all challenges included in Samsung’s Petition. Paper 10, 87.

In June 2024, on the same day that the Board instituted an *inter partes* review in this proceeding, Qualcomm Incorporated (“Petitioner” or “Qualcomm”) filed a petition in IPR2024-01081 challenging claims 2, 6, and 9–16 in the ’449 patent on substantively identical grounds to those asserted in Samsung’s Petition. *Qualcomm Incorporated v. Network System Technologies, LLC*, IPR2024-01081, Paper 1 (“Qualcomm Pet.”). Concurrently with filing the petition in IPR2024-01081, Petitioner filed a motion for joinder, seeking joinder as a party in this proceeding under 35 U.S.C. § 315(c). IPR2024-01081, Paper 3.

In July 2024, Patent Owner filed a response to Petitioner’s motion for joinder in IPR2024-01081 and urged the Board to deny the motion for various reasons. *See* IPR2024-01081, Paper 7. In July 2024, Patent Owner also filed a preliminary response in IPR2024-01081 and urged the Board to deny institution for various reasons. *See* IPR2024-01081, Paper 9.

In October 2024, the Board (1) instituted an *inter partes* review in IPR2024-01081, (2) granted Petitioner’s motion for joinder in IPR2024-01081, and (3) joined Petitioner as a party in this proceeding. Paper 16

(“Qualcomm Inst. Dec.”), 50–51; IPR2024-01081, Paper 14 at 50–51. The next day, based on a settlement between Samsung and Patent Owner, the Board granted in part a joint motion to terminate filed by Samsung and Patent Owner and terminated Samsung as a petitioner in this proceeding. *See* Paper 14 (Joint Motion); Paper 17 (Order).

In November 2024, Patent Owner filed a Response to the Petition. Paper 35 (“Resp.”). To support various positions in the Response, Patent Owner filed a declaration of Dr. Nader Bagherzadeh (Exhibit 2070).

In January 2025, Petitioner filed a Reply to Patent Owner’s Response. Paper 43 (“Reply”). To support various positions in the Reply, Petitioner filed a declaration of Dr. Todd Mowry (Exhibit 1043).

In February 2025, after receiving Board authorization, Patent Owner filed a motion to strike certain “theories and evidence” in Petitioner’s Reply and Dr. Mowry’s declaration (Exhibit 1043). Paper 53 (“Mot.”); *see* Ex. 3007. Petitioner opposed Patent Owner’s motion to strike. Paper 54.

In March 2025, Patent Owner filed a Sur-reply to Petitioner’s Reply. Paper 55 (“Sur-reply”).

Later in March 2025, we issued an Order denying Patent Owner’s motion to strike. Paper 64 (“Order”). Two days after issuing the Order denying Patent Owner’s motion to strike, we held a previously scheduled oral hearing. The record includes the hearing transcript. Paper 67 (“Tr.”).

In April 2025, Patent Owner requested rehearing of the Order. Req. Reh’g 2.

### *B. The Challenged Claims*

The ’449 patent originally included eighteen claims as follows:

- independent claim 1 for an “[i]ntegrated circuit”;

- claims 2–9 that depend directly or indirectly from claim 1;
- independent claim 10 for a “[m]ethod for exchanging messages in an integrated circuit”; and
- claims 11–18 that depend directly or indirectly from claim 10.

Ex. 1001, 18:32–20:38.

As discussed above, (1) Samsung challenged claims 1–6 and 9–16; (2) Patent Owner statutorily disclaimed claims 1 and 3–5; and (3) Petitioner challenges claims 2, 6, and 9–16. *See* Pet. 9, 15–68; Prelim. Resp. 13 n.1, 41 n.4; Qualcomm Pet. 10, 16–71; Ex. 2062, 3; *supra* § II.A.

Claim 10 exemplifies the challenged claims and reads as follows (with formatting added for clarity and with bracketed numbers and letters added for reference purposes):<sup>5</sup>

10. [10.pre.1] Method for exchanging messages in an integrated circuit comprising a plurality of modules, the messages between the modules being exchanged over connections via a network,

[10.pre.2] wherein said connections comprises [sic] a set of communication channels each having a set of connection properties, any communication channel being independently configurable,

[10.pre.3] wherein said connection through the network supports transactions comprising at least one of outgoing messages from the first module to the second module and return messages from the second module to the first module

and further comprising the steps of:

[10.a] the first module issuing a request for a connection with the second module to a communication manager, wherein

---

<sup>5</sup> We use the same reference numbers and letters that Petitioner uses to identify the claim language. *See* Pet. 42–45.

the request comprises desired connection properties associated with the sets of communication channels;

[10.b] the communication manager forwarding the request to a resource manager;

[10.c] the resource manager determining whether a target connection with the desired connection properties is available;

[10.d] the resource manager responding with the availability of the target connection to the communication manager; and

[10.e] the target connection between the first and second module being established based on the available properties of said communication channels of said connection.

Ex. 1001, 19:21–20:6.

### III. STANDARD OF REVIEW

“The burden of showing a decision should be modified lies with the party challenging the decision.” 37 C.F.R. § 42.71(d) (2024). In a rehearing request, the party challenging the decision must “specifically identify” (1) “all matters the party believes the Board misapprehended or overlooked” and (2) “the place where each matter was previously addressed” in an earlier submission. *Id.*; see Consolidated Trial Practice Guide (“CTPG”) at 90.<sup>6</sup>

“A rehearing request is not an opportunity for the requesting party to reargue its case or merely to express disagreement with the underlying decision.” *MicroSurgical Tech., Inc. v. Regents of Univ. of Colo.*, PGR2021-00026, Paper 14 at 2 (PTAB Aug. 12, 2021). “Nor is it an opportunity for the moving party to present new arguments that were not in its original submissions.” *Id.*

---

<sup>6</sup> Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

#### IV. ANALYSIS

##### *A. Matters Allegedly Misapprehended or Overlooked Regarding the Allegedly New First-Module Theories of Unpatentability*

###### 1. BACKGROUND: PATENT OWNER'S IDENTIFICATION OF OPTIONS 1, 2, AND 3

In the motion to strike, Patent Owner contended that the preliminary response in IPR2024-01081 “explained that the Petition failed to specify whether” the claimed “first module” corresponds to Drake’s source station 10 or only to application 11 in source station 10. Mot. 1 (citing IPR2024-01081, Paper 9 at 28–29);<sup>7</sup> *see* Order 12. In the Response, Patent Owner similarly contended that the Petition inconsistently applied “either Drake’s (1) entire source station 10 or (2) only the application 11 within the source station 10 as the claimed ‘first module.’” Resp. 17; *see id.* at 17–20.

Patent Owner identifies the mapping of source station 10 to the claimed “first module” as option 1 and the mapping of application 11 to the claimed “first module” as option 2. Mot. 1; *see* Resp. 18; Sur-reply 2; Req. Reh’g 2–3.

---

<sup>7</sup> In its contentions, Patent Owner referenced the preliminary response in IPR2024-01081 (Paper 9), but Patent Owner incorrectly cited to Paper 7. Mot. 1.



that ‘mak[es] the service request.’” Mot. 2 (alteration by Patent Owner) (citing Reply 3–4, 15–17, 21); *see* Sur-reply 2–3.

Further, Patent Owner asserted in the motion to strike that the Reply “purports to identify the ‘first module’ solely as the Goossens references” intellectual property (IP) blocks and “disavowed any reliance on Drake” for the claimed “first module.” Mot. 2 (emphasis omitted); *see* Sur-reply 2–3, 19–21, 24–25; Req. Reh’g 2–4, 7. Patent Owner identifies the alleged disavowal of Drake and sole reliance on the Goossens references as option 3. Mot. 2; *see* Sur-reply 2–3; Req. Reh’g 2–4, 7.

Patent Owner does not explain how the Reply could “disavow[] any reliance on Drake” for the claimed “first module” and still rely on Drake by “argu[ing] option 2” (mapping application 11 to the claimed “first module”). *See* Mot. 2; Sur-reply 2–3, 19–21, 24–25; Req. Reh’g 2–4, 7. For instance, the request for rehearing includes the following internally inconsistent statement about complete disavowal coupled with partial reliance: “The Order conflates the Motion’s separate arguments about the Reply disavowing any reliance on Drake for the ‘first module’ (option 3) versus relying on Drake’s application 11 (option 2) for the ‘first module.’” Req. Reh’g 4 (citing Mot. 2; Order 12–13).

## 2. “NEW” OPTION 2

Patent Owner contends that the Board misapprehended or overlooked that the motion to strike seeks to bar not only “new” option 3 but also “new” option 2. *See* Req. Reh’g 3–5 (citing Mot. 1–3). Patent Owner contends that “new” option 2 is inconsistent with the institution decision in IPR2024-01081. *Id.* at 3. As support, Patent Owner quotes the following statements from that institution decision:

- (1) “we disagree with Patent Owner that Petitioner identifies application 11 in the source station 10 as the claimed ‘first module’”; and
- (2) “Petitioner identifies source station 10 as the claimed ‘first module.’”

*Id.* (quoting Qualcomm Inst. Dec. 24).<sup>8</sup>

Further, Patent Owner asserts that the Board’s “failure to address the Reply’s reliance on application 11 as the claimed ‘first module’ in any of its relevant discussion of application 11” demonstrates that the Board “misapprehended or overlooked the Motion’s argument that option 2 is an improper new theory.” Req. Reh’g 4–5 (citing Order 15–20).

Contrary to Patent Owner’s contention, the Board did not misapprehend or overlook that the motion to strike seeks to bar not only “new” option 3 but also “new” option 2. *See* Req. Reh’g 3–5. Instead, the Board noted that the institution decision in IPR2024-01081 preliminarily determined that Petitioner “consistently identifies Drake’s source station 10 as the claimed ‘first module.’” Order 19 (quoting Qualcomm Inst. Dec. 23). Then, the Board determined that “Petitioner’s explanation in the Reply that application 11 in Drake’s source station 10 is the ‘thing’ in Drake that initially requests a QoS connection properly addresses that preliminary determination.” *Id.* (citing Reply 3–4; 37 C.F.R. § 42.23(b); CTPG 73).

---

<sup>8</sup> Although, as noted above, the petition in IPR2024-01081 is substantively identical to the Petition in this proceeding, we note that Patent Owner raised different arguments in its preliminary responses in each case, and that, as a consequence, the institution decisions similarly differ. The above-quoted language, for example, does not appear in the Institution Decision in this proceeding. To be clear, to the extent that Patent Owner seeks rehearing based on matters raised only in IPR2024-01081, such arguments are not properly before us in this proceeding.

By discussing “Petitioner’s explanation in the Reply that application 11 in Drake’s source station 10 is the ‘thing’ in Drake that initially requests a QoS connection,” the Board addressed option 2, as Patent Owner recognizes. For instance, Patent Owner asserted in the motion to strike that the Reply “argued option 2 by identifying application 11 as the ‘thing’/‘component’ in Drake that ‘mak[es] the service request.’” Mot. 2 (alteration by Patent Owner) (citing Reply 3–4, 15–17, 21).

As the “thing” in Drake that initially requests a QoS connection, application 11 corresponds to Goossens’ IP making a service request to a network interface. *See* Ex. 1043 ¶¶ 14, 75; Ex. 2078, 174:23–176:3; Ex. 2088, 175:4–16, 179:8–180:15, 183:2–14, 184:10–12. In the Sur-reply, Patent Owner acknowledges that the Reply associates Goossens’ IP “with Drake’s application 11.” Sur-reply 25 (citing Reply 11, 21). Hence, Patent Owner mischaracterizes the Reply by asserting that it “disavowed any reliance on Drake” for the claimed “first module.” Mot. 2 (emphasis omitted); *see* Sur-reply 2–3, 19–21, 24–25; Req. Reh’g 2–4, 7.

Additionally, when the Board preliminarily determined in IPR2024-01081 that Petitioner “consistently identifies Drake’s source station 10 as the claimed ‘first module,’” the Board did not consider the following explanation by Samsung in the Preliminary Reply in this proceeding: “The Petition identifies a separate ‘first module’ of Drake (application within source station) from the ‘communication manager’ (QoS requestor manager).” Prelim. Reply 7 n.5. Notably, in the Preliminary Sur-reply in this proceeding, Patent Owner did not characterize Samsung’s explanation as a “new” argument. *See, e.g.*, Prelim. Sur-reply 3–7.

As discussed above, Qualcomm’s petition in IPR2024-01081 includes substantively identical grounds to those asserted in Samsung’s Petition. *See* Pet. 9, 15–68; Qualcomm Pet. 10, 16–71; *supra* § II.A. Hence, Patent Owner mischaracterizes option 2 as “new” in the Reply. *See, e.g.*, Req. Reh’g 2–6.

### 3. “THE PETITION’S CLAIM 2 ANALYSES”

Patent Owner contends that the Board misapprehended or overlooked the motion to strike’s argument that the Petition relies on option 1 (mapping source station 10 to the claimed “first module”) for claim 2. *See* Req. Reh’g 5–6 (citing Mot. 1–2). Patent Owner contends that the Board’s “analysis for the ‘first module’ issue never cites to the Petition’s claim 2 analyses.” *Id.* at 6 (citing Qualcomm Pet. 35–36, 63; Order 15–20).

But claim 6 depends from claim 2, and the Board explained that the Petition relies on the Goossens references for disclosing the “first module” required by claim 6. *See* Order 15–16; Ex. 1001, 18:60–19:5.

Additionally, we disagree with Patent Owner that the Petition relies on option 1 (mapping source station 10 to the claimed “first module”) for claim 2. *See* Req. Reh’g 5–6. Claim 2 depends directly from claim 1. Ex. 1001, 18:49–51. Claim 1 requires “a plurality of processing modules,” specifically, “a first and at least one second module.” *Id.* at 18:32–33, 18:37–38. Claim 2 further requires “at least one communication manager (CM) for managing the communication between different modules.” *Id.* at 18:49–51.

The Petition relies on the Goossens references for disclosing the “processing modules” required by claim 1. Pet. 20, 52–53. As an example, the Petition asserts that an ordinarily skilled artisan “would have understood

that the IPs in Goossens2002's system on silicon are processing modules.” *Id.* at 20 (citing Ex. 1003 ¶ 87).

As another example, the Petition includes the following highlighted version of Goossens2003's Figure 4.5 showing multiple “processing modules” in Goossens2003's system on chip (Pet. 52):

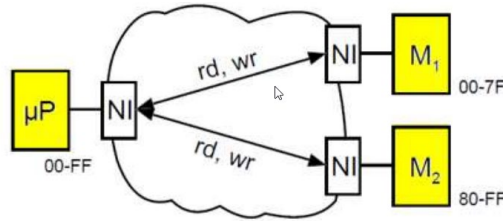


*Figure 4.5. A narrowcast connection.*

Figure 4.5 illustrates an example narrowcast connection between a master IP module identified as “μP” (microprocessor) and two slave IP modules identified as “M<sub>1</sub>” (memory module 1) and “M<sub>2</sub>” (memory module 2) together with a network interface (NI) associated with each of the three “processing modules.” Ex. 1007, 72; *see* Ex. 1003 ¶ 170. The above highlighted version of Figure 4.5 includes yellow highlighting over each of the three “processing modules.” *See* Pet. 52; Ex. 1003 ¶ 170.

The Petition relies on Drake for disclosing the “communication manager” required by claim 2. Pet. 32–33, 60. For example, the Petition contends that “Drake discloses a ‘communication manager’ in the form of a ‘QoS requestor manager.’” *Id.* at 32–33, 60 (footnote omitted) (citing Ex. 1006, 4:32–37, 4:62–65, 5:5–8).

#### 4. DR. MOWRY'S TESTIMONY

Patent Owner contends that the Board misapprehended or overlooked the motion to strike's argument that “new” option 3 (allegedly disavowing any reliance on Drake for the claimed “first module”) is “contrary to”

Dr. Mowry’s testimony at his first deposition that “he relied on Drake for the ‘first module.’” Req. Reh’g 7 (citing Mot. 3; Ex. 2078, 173:4–11).

As discussed above, however, Patent Owner mischaracterizes the Reply by asserting that it “disavowed any reliance on Drake” for the claimed “first module.” See Mot. 2; Sur-reply 2–3, 19–21, 24–25; Req. Reh’g 2–4, 7; *supra* § IV.A.2. Additionally, the Board noted that Dr. Mowry’s testimony at his first deposition comports with Petitioner’s explanation in the Reply that application 11 in Drake’s source station 10 is the “thing” in Drake that initially requests a QoS connection. Order 18 (citing Ex. 2078, 172:4–176:3). The Board also noted Patent Owner’s assertion that Dr. Mowry “initially testified that Drake’s source station 10 corresponds to the claimed ‘first module’” but “later **clarified** that only the application 11 within source station 10 corresponds to the claimed ‘first module.’” *Id.* at 18–19 (emphasis added) (quoting Resp. 18).

#### 5. PATENT OWNER’S “NECESSARILY” ARGUMENTS

Although Patent Owner did not request rehearing in IPR2024-01081, Patent Owner contends that the Board misapprehended or overlooked arguments in the preliminary response in IPR2024-01081 as follows:

- (1) “if Goossens does not disclose a ‘communication manager,’ it necessarily does not disclose the claimed ‘first module’”; and
- (2) “if Drake does not disclose a ‘first module,’ then it necessarily does not disclose the claimed ‘communication manager.’”

Req. Reh’g 8.

But the preliminary response in IPR2024-01081 did not include those “necessarily” arguments. See IPR2024-01081, Paper 9 at 27–52. The

Response and the Sur-reply also do not include those “necessarily” arguments. *See* Resp. 17–64; Sur-reply 2–26. And the motion to strike does not include those “necessarily” arguments. *See* Mot. 1–3.

Accordingly, Patent Owner makes new arguments in the rehearing request. *See* Req. Reh’g 8.

The Board could not have misapprehended or overlooked arguments not previously made.

6. PATENT OWNER’S ARGUMENT THAT PETITIONER  
“NEVER DISPUTED PATENT OWNER’S UNDERSTANDING THAT  
THE PETITION RELIED ON DRAKE FOR THE ‘FIRST MODULE’”

Patent Owner contends that the Board misapprehended or overlooked the motion to strike’s argument that Petitioner “never disputed Patent Owner’s understanding that the Petition relied on Drake for the ‘first module’ or otherwise clarified its position prior to the Reply” as demonstrated by Petitioner’s request for authorization to file a preliminary reply in IPR2024-01081. Req. Reh’g 9 (citing Mot. 1).

But the Board recognized that “the Petition relied on Drake for the ‘first module.’” *See* Order 15–17; Req. Reh’g 9. Among other things, the Board noted that:

- (1) for “the Goossens2002-Drake challenge, the Petition also references Drake for the ‘first module’ and the ‘second module’”; and
- (2) for “the Goossens2003-Drake challenge, the Petition also references Drake for the ‘first module’ and the ‘second module.’”

*Id.* (quoting Qualcomm Pet. 27, 32, 40–41, 59, 65–66).

The Board also recognized “Patent Owner’s understanding that the Petition relied on Drake for the ‘first module.’” *See* Order 12; Req. Reh’g 9.

For instance, the Board stated as follows: “Patent Owner contends that the preliminary response in IPR2024-01081 ‘explained that the Petition failed to specify whether’ the claimed ‘first module’ corresponds to Drake’s source station 10 or application 11 in source station 10.” Order 12 (citing Mot. 1).

## 7. SUMMARY

For the reasons discussed above, Patent Owner does not persuade us that we misapprehended or overlooked matters regarding the allegedly new first-module theories of unpatentability such that we should modify the Order denying Patent Owner’s motion to strike. *See supra* §§ IV.A.2–IV.A.6.

### *B. Matters Allegedly Misapprehended or Overlooked Regarding the Allegedly New Network-Interface Theories of Unpatentability*

#### 1. THE PETITION’S ALLEGED FAILURE TO DISCUSS INTERFACING AS A MOTIVATION

Regarding Petitioner’s contention in the Reply that an ordinarily skilled artisan would have been motivated to include Drake’s QoS requestor manager 12 in a network interface in Goossens’ systems based on an alleged “need for interfacing components,” Patent Owner contends that the Board misapprehended or overlooked the motion to strike’s argument that the Petition lacked such a contention. *See* Req. Reh’g 9–12 (citing Mot. 3–4). According to Patent Owner, the motion to strike did not “argue that the Petition provides no alleged motivation to combine” but instead argued that “the Petition, unlike the Reply, did not allege interfacing as a motivation.” *Id.* at 11 (emphasis omitted) (citing Mot. 3–4).

But the Board recognized the motion to strike’s argument that “the Petition . . . did not allege interfacing as a motivation.” *See* Order 20. For instance, the Board stated as follows: “Patent Owner contends that the

Reply” includes “an improper new network-interface theory” that “a skilled artisan would have been motivated to [include Drake’s QoS requestor manager 12 in a network interface in Goossens’ systems] based on an alleged ‘need for interfacing components’ in both off-chip and on-chip networks.” *Id.* (citing Mot. 3–4).

2. “NECESSARY FOR PRIMA FACIE OBVIOUSNESS.”

Regarding Petitioner’s contention in the Reply that an ordinarily skilled artisan would have been motivated to include Drake’s QoS requestor manager 12 in a network interface in Goossens’ systems based on an alleged “need for interfacing components,” Patent Owner contends that the Board misapprehended or overlooked the motion to strike’s argument that this “new theory” is the “only reason Petitioner has ever articulated” for including Drake’s QoS requestor manager 12 in Goossens’ systems. Req. Reh’g 12 (citing Mot. 4). According to Patent Owner, the motion to strike did not “argue that the Petition provides no alleged motivation” but instead argued that “the Petition alleged no motivation to combine specific to” including Drake’s QoS requestor manager 12 in Goossens’ systems. *Id.* (emphases omitted) (citing Mot. 4). Patent Owner contends that the Board misapprehended or overlooked that this “new theory” was “necessary for prima facie obviousness.” *Id.* at 12–13 (citing Order 25).

But the Board recognized the motion to strike’s argument that this “new theory” provided “the ‘only alleged motivation to combine specific to’ Drake’s QoS requestor manager 12” and thus was “necessary for prima facie obviousness.” Order 21 (quoting Mot. 4). Regarding “motivation to combine specific to” Drake’s QoS requestor manager 12, the Board noted that the Petition “contends that an ordinarily skilled artisan would have been

motivated to combine Drake's teachings with each of the Goossens references to":

- (1) "obtain the benefits of Drake's known solution to ensuring the availability of network resources for guaranteed services" using QoS requestor manager 12 (mapped to the claimed "communication manager") and QoS allocator 20 (mapped to the claimed "resource manager"); and
- (2) "create an SoC [system on chip] with improved performance and efficiency."

*Id.* at 23 (citing Qualcomm Pet. 16–19, 23–24, 37–38, 51–53, 57–58, 63).

As an example, the Petition asserts that an ordinarily skilled artisan "would have understood that using Drake's QoS management process would improve the performance and efficiency" of Goossens2002's network on silicon by "ensuring that connections established to provide guaranteed services are, in fact, able to provide the required services." Pet. 17. As another example, the Petition asserts that an ordinarily skilled artisan "would have understood that using Drake's QoS management process would improve the performance and efficiency" of Goossens2003's network on chip by "ensuring that connections established by IPs are able to provide the required services." *Id.* at 49.

"[U]sing Drake's QoS management process" includes using QoS requestor manager 12 and QoS allocator 20. *See* Ex. 1003 ¶¶ 76, 78–79, 91, 96, 118, 160, 162–163, 173, 175, 187; Ex. 1006, 4:30–40, 4:62–67, Fig. 1. Hence, we disagree with Patent Owner that the Petition "alleged no motivation to combine specific to" including Drake's QoS requestor manager 12 in Goossens' systems. *See* Req. Reh'g 12.

Additionally, the Board explained that the “challenged claims do not specify a location for the claimed ‘communication manager’ or the claimed ‘resource manager’ other than ‘disposed on a chip.’” Order 24 (citing Ex. 1001, 18:32–19:5, 19:17–20:26). Patent Owner concedes that the challenged claims do not specify a location for those claimed components. Tr. 32:15–16. The Board also explained that because the “challenged claims do not specify a location for the claimed ‘communication manager’ or the claimed ‘resource manager’ other than ‘disposed on a chip,’ those implementation details were not ‘necessary for prima facie obviousness.’” Order 25 (quoting Mot. 4).

### 3. “NOT PROPERLY RESPONSIVE”

Regarding Petitioner’s contention in the Reply that an ordinarily skilled artisan would have been motivated to include Drake’s QoS requestor manager 12 in a network interface in Goossens’ systems based on an alleged “need for interfacing components,” Patent Owner contends that the Board misapprehended or overlooked that this “new theory” is “not properly responsive” to arguments in the Response. Req. Reh’g 13 (citing Mot. 4–5). Patent Owner also contends that the Board overlooked “cited authority explaining that simply pointing out a deficiency in the Petition does not open the door for Petitioner to identify a new motivation to combine in its Reply.” *Id.* (citing Mot. 4–5; Order 23).

For the reasons discussed in the immediately preceding section, we disagree with Patent Owner that the Response “point[ed] out a deficiency in the Petition” about something “necessary for prima facie obviousness.” *See supra* § IV.B.2.

Further, Petitioner’s contention in the Reply that an ordinarily skilled artisan would have been motivated to include Drake’s QoS requestor manager 12 in a network interface in Goossens’ systems based on an alleged “need for interfacing components” properly responds to Patent Owner’s arguments in the Response that an ordinarily skilled artisan “looking to implement Drake’s QoS system” in Goossens’ systems would have had “no need” and “no reason” to include Drake’s QoS requestor manager 12 in Goossens’ systems. *See* Resp. 27–28, 34–35, 37, 49–50, 56, 59–60; Reply 9; *Rembrandt Diagnostics, LP v. Alere, Inc.*, 76 F.4th 1376, 1384–85 (Fed. Cir. 2023) (determining that motivation-to-combine arguments in a petitioner reply properly addressed arguments in a patent owner response); *Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 706–07 (Fed. Cir. 2020) (determining that unpatentability arguments in a petitioner reply properly addressed arguments in a patent owner response); 37 C.F.R. § 42.23(b).

#### 4. SUMMARY

For the reasons discussed above, Patent Owner does not persuade us that we misapprehended or overlooked matters regarding the allegedly new network-interface theories of unpatentability such that we should modify the Order denying Patent Owner’s motion to strike. *See supra* §§ IV.B.1–IV.B.3.

#### V. CONCLUSION

For the reasons discussed above, Patent Owner does not persuade us that we should modify the Order (Paper 64) denying Patent Owner’s motion to strike (Paper 53).

VI. ORDER

Accordingly, it is  
ORDERED that Patent Owner's request for rehearing (Paper 65) is  
denied.

IPR2024-00338  
Patent 7,373,449 B2

For PETITIONER:

J. Derek Vandenburg  
Peter M. Kohlhepp  
Aaron W. Pederson  
Nathan D. Louwagie  
Ryan D. Rypka  
CARLSON CASPERS VANDENBURGH & LINDQUIST, P.A.  
dvandenburg@carlsoncaspers.com  
pkohlhepp@carlsoncaspers.com  
apederson@carlsoncaspers.com  
nlouwagie@carlsoncaspers.com  
rrypka@carlsoncaspers.com

For PATENT OWNER:

Jennifer Hayes  
Daniel S. Stringfield  
Angelo J. Christopher  
Hang Zheng  
Peter C. Krusiewicz  
NIXON PEABODY LLP  
jenhayes@nixonpeabody.com  
dstringfield@nixonpeabody.com  
achristopher@nixonpeabody.com  
hzheng@nixonpeabody.com  
pkrusiewicz@nixonpeabody.com