

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TELESIGN CORPORATION,
Petitioner,

v.

TWILIO INC.,
Patent Owner.

Case IPR2017-01977
Patent 8,755,376 B2

Before ROBERT J. WEINSCHENK, KIMBERLY MCGRAW, and
SCOTT C. MOORE, *Administrative Patent Judges*.

WEINSCHENK, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a)

I. INTRODUCTION

TeleSign Corporation (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–3, 5, 14, 16, 17, and 19 of U.S. Patent No. 8,755,376 B2 (Ex. 1001, “the ’376 patent”). Twilio Inc. (“Patent Owner”) filed a Preliminary Response (Paper 10, “Prelim. Resp.”) to the Petition. On March 9, 2018, an *inter partes* review of the challenged claims was instituted on the following grounds:

Claim(s)	Statutory Basis	Applied References
1–3, 14, 16, and 19	35 U.S.C. § 103(a) ¹	Maes et al., U.S. Patent No. 6,801,604 B2 (filed June 25, 2002, issued Oct. 5, 2004) (Ex. 1003, “Maes”) and Ransom et al., U.S. Patent Application Publication No. 2003/0204756 A1 (filed Jan. 9, 2003, published Oct. 30, 2003) (Ex. 1004, “Ransom”)
5 and 17	35 U.S.C. § 103(a)	Maes, Ransom, and Jiang et al., U.S. Patent No. 7,092,370 B2 (filed Aug. 16, 2001, issued Aug. 15, 2006) (Ex. 1005, “Jiang”)
1–3, 5, 14, and 16	35 U.S.C. § 103(a)	European Telecommunications Standards Institute, ETSI ES 202 391-4 V1.2.1 (2006) (Ex. 1006, “ETSI 391-4”) and Ransom
17	35 U.S.C. § 103(a)	ETSI 391-4, Ransom, and European Telecommunications

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, which was enacted on September 16, 2011, made amendments to 35 U.S.C. §§ 102, 103. AIA § 3(b), (c). Those amendments became effective on March 16, 2013. *Id.* at § 3(n). Because the challenged claims of the ’376 patent have an effective filing date before March 16, 2013, any citations herein to 35 U.S.C. §§ 102, 103 are to their pre-AIA versions.

Claim(s)	Statutory Basis	Applied References
		Standards Institute, ETSI ES 202 391-7 V1.2.1 (2006) (Ex. 1007, “ETSI 391-7”)
19	35 U.S.C. § 103(a)	ETSI 391-4, Ransom, and European Telecommunications Standards Institute, ETSI ES 202 391-2 V1.2.1 (2006) (Ex. 1008, “ETSI 391-2”)

Paper 12 (“Dec. on Inst.”), 15.

After institution, Patent Owner filed a Response (Paper 26,² “PO Resp.”) to the Petition, and Petitioner filed a Reply (Paper 30, “Pet. Reply”) to the Response. Petitioner submitted a Declaration of Dr. Seth Nielson (Ex. 1009) with the Petition, and a Supplemental Declaration of Dr. Nielson (Ex. 1019) with the Reply. Patent Owner submitted a Declaration of Dr. Kevin Negus (Ex. 2010) with the Response. An oral hearing was held on November 15, 2018, and a transcript of the hearing is included in the record. Paper 50³ (“Tr.”).

For the reasons set forth below, Petitioner has shown by a preponderance of the evidence that claims 1–3, 5, 14, 16, 17, and 19 of the ’376 patent are unpatentable.

A. *Related Proceedings*

The parties indicate that the ’376 patent is the subject of the following case in the United States District Court for the Northern District of California (“District Court”): *Twilio Inc. v. TeleSign Corporation*, No. 5:16-

² Paper 26 is a public version of the Response. Paper 28 is a confidential version of the Response, which remains under seal.

³ Paper 50 is a public version of the transcript. Paper 48 is a confidential version of the transcript, which remains under seal.

cv-06925 (N.D. Cal.). Pet. 66; Paper 4, 1. Patent Owner also indicates that the following petitions for *inter partes* review are related to this case:

Case No.	Involved U.S. Patent No.
IPR2017-01976	U.S. Patent No. 8,837,465
IPR2017-01978	U.S. Patent No. 8,306,021

Paper 4, 1.

B. *The '376 Patent*

The '376 patent relates to “making telephony application development as easy as web programming.” Ex. 1001, 1:66–2:3. The '376 patent explains that deploying telephony services “requires developers to train in new languages, tools, and development environments,” and, thus, involves “significant upfront and ongoing investment.” *Id.* at 1:35–54. To address this problem, the '376 patent describes a method and system for processing telephony sessions that “enables web developers to use their existing skills and tools with the esoteric world of telephony.” *Id.* at 1:61–2:3. For example, the method and system of the '376 patent “use the familiar web site visitor model to interact with a web developer’s application, with each step of the phone call analogous to a traditional page view.” *Id.* at 2:3–6.

C. *Illustrative Claim*

Of the challenged claims, claim 1 is independent and is reproduced below.

1. A method comprising:
operating a telephony network and internet connected
system cooperatively with a plurality of application
programming Interface (API) resources, wherein operating the
system comprises:
initiating a telephony session,

communicating with an application server to receive an application response,

converting the application response into executable operations to process the telephony session,

creating at least one informational API resource; and

exposing the plurality of API resources through a representational state transfer (REST) API that comprises:

receiving a REST API request that specifies an API resource URI,⁴ and

responding to the API request according to the request and the specified resource URI.

Ex. 1001, 18:29–45.

II. ANALYSIS

A. *Level of Ordinary Skill in the Art*

Petitioner argues that a person of ordinary skill in the art would have had “a bachelor’s degree in computer science with at least two years of experience in application development.” Pet. 8 (citing Ex. 1009 ¶¶ 49–50). Patent Owner argues that a person of ordinary skill in the art would have had “the equivalent of a four-year degree from an accredited institution in computer science, computer engineering, electrical engineering, software engineering, or the equivalent, and approximately 1–2 years of professional experience with or exposure to computer networking, telephony networking protocols, and various APIs,” but “[a]dditional graduate education could substitute for professional experience, while significant experience in the field might substitute for formal education.” PO Resp. 10 (citing Ex. 2010 ¶ 32).

⁴ URI stands for Universal Resource Identifier. Ex. 1001, 2:61–62.

Neither party identifies any specific instance in which the difference between the parties' respective definitions of the level of ordinary skill in the art impacts the analysis or conclusions of either party, or either party's declarant, in this case. Our findings and conclusions in this case would be the same under either party's definition of the level of ordinary skill in the art. To the extent necessary, though, we adopt Petitioner's definition, which is supported by the testimony of Petitioner's declarant, Dr. Nielson, and is consistent with the prior art. Pet. 6–8; Ex. 1009 ¶¶ 49–50.

B. *Claim Construction*

The claims of an unexpired patent are interpreted using the broadest reasonable interpretation in light of the specification of the patent in which they appear.⁵ 37 C.F.R. § 42.100(b) (2017); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–45 (2016). “Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history.” *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016). An applicant may provide a definition of a term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations

⁵ The rule replacing the broadest reasonable interpretation standard with the standard used in federal district court does not apply in this case. Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (final rule) (“This rule is effective on November 13, 2018 and applies to all IPR, PGR and CBM petitions filed on or after the effective date.”). Nonetheless, on this record, the outcome would be the same under the standard used in federal district court.

are not to be read into the claims from the specification. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

1. *Representational State Transfer (REST) API*

Patent Owner proposes construing the term “representational state transfer (REST) API” to mean “an application programming interface that complies with Representational State Transfer (REST) interface constraints, which are: identification of resources; manipulation of resources through representations; self-descriptive messages; and, hypermedia as the engine of application state.” PO Resp. 10. Petitioner does not propose an express construction for the term “representational state transfer (REST) API,” but acknowledged at the oral hearing that Patent Owner’s proposed construction “simply makes express what [Petitioner] implies.” Tr. 32:24–33:13.

Patent Owner’s proposed construction is supported by the specification of the ’376 patent and the extrinsic evidence. Specifically, the ’376 patent indicates that the term “REST” has its ordinary meaning in the art (Ex. 1001, 2:15–16, 8:12–14), and Patent Owner’s declarant, Dr. Negus, explains that a person of ordinary skill in the art would understand the term “REST API” to refer to the interface constraints set forth in Patent Owner’s proposed construction (Ex. 2010 ¶¶ 163–166). Patent Owner’s proposed construction also is consistent with the construction that was adopted by the District Court in a related case. Ex. 2005, 16–22.

Therefore, the term “representational state transfer (REST) API” is construed to mean “an application programming interface that complies with Representational State Transfer (REST) interface constraints, which are: identification of resources; manipulation of resources through

representations; self-descriptive messages; and hypermedia as the engine of application state.”

2. *Application Programming Interface (API) Resource*

Patent Owner proposes construing the term “application programming interface (API) resource” to mean “a resource identifiable by its URI and available through an API.” PO Resp. 12. Petitioner agrees with a portion of Patent Owner’s proposed construction, namely, Petitioner agrees that the term “application programming interface (API) resource” refers to “a resource available through an API.” Tr. 33:24–34:8.

The agreed portion of Patent Owner’s proposed construction is supported by the claim language. Specifically, the term “API resource” by itself indicates that the resource is available through an API. The other portion of Patent Owner’s proposed construction, however, is not supported by the claim language. For example, claim 1 separately recites “an API resource URI” (Ex. 1001, 18:42–43), which Patent Owner asserts is “a URI that identifies an API resource” (PO Resp. 13). Because claim 1 separately recites a URI that identifies an API resource, it is unnecessary to include that limitation in a construction of the term “API resource” alone.

Therefore, the term “application programming interface (API) resource” is construed to mean “a resource available through an API.”

3. *API Resource URI*

Patent Owner proposes construing the term “API resource URI” to mean “a URI that identifies an API resource.” PO Resp. 13. Petitioner agrees with Patent Owner’s proposed construction. Tr. 34:9–16. And Patent Owner’s proposed construction is supported by the specification of the ’376 patent, which indicates that an API resource preferably is addressed by a

URI. Ex. 1001, 9:33–34.

Therefore, the term “API resource URI” is construed to mean “a URI that identifies an API resource.”

4. *URI*

Patent Owner proposes construing the term “URI” to mean “a compact sequence of characters that identifies an abstract or physical resource.” PO Resp. 13. Petitioner agrees with Patent Owner’s proposed construction. Tr. 12:5–9, 34:17–20.

Patent Owner’s proposed construction is supported by the specification of the ’376 patent. Namely, the ’376 patent provides several examples of URIs, and each example is a compact sequence of characters. Ex. 1001, 4:4–5 (“http://demo.twilio.com/myapp{dialed phone number}/{originating phone number}”), 4:5–8 (“http://demo.twilio.com/mpapp/foo.php?dialed_number={dialed phone number}& originating_number={originating phone number}”), 7:45–51 (“http://demo.twilio.com/foo.php?digits=1234”), 7:51–54 (“http://demo.twilio.com/myapp/1234.mp3”). Patent Owner’s proposed construction also is consistent with the parties’ agreed construction that was adopted by the District Court in a related case. Ex. 2005, 13–16.

Therefore, the term “URI” is construed to mean “a compact sequence of characters that identifies an abstract or physical resource.”

C. *Obviousness of Claims 1–3, 14, 16, and 19 over Maes and Ransom*

Petitioner argues that claims 1–3, 14, 16, and 19 would have been obvious over Maes and Ransom. Pet. 5–6. A claim is unpatentable as obvious under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole

would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) any objective indicia of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Based on the parties’ arguments and supporting evidence, Petitioner has shown by a preponderance of the evidence that claims 1–3, 14, 16, and 19 would have been obvious over Maes and Ransom.

1. *Overview of Maes and Ransom*

Maes relates to “building distributed conversational applications using a Web services-based model.” Ex. 1003, 3:52–65. Maes describes a router that receives incoming call information, such as a telephone number, and assigns an application to the incoming call. *Id.* at 15:51–57. The router sends a message that includes a telephony gateway address to the assigned application over the Internet. *Id.* at 15:57–62, Fig. 1 (“IP Network”). The assigned application then sends a message to the telephony gateway to accept the incoming call. *Id.* at 15:63–65.

Ransom relates to transporting data between a mix of secure and unsecure networks. Ex. 1004 ¶ 5. Ransom explains that “there are two common web service models”—the REST and SOAP models—for use with Hypertext Transfer Protocol (“HTTP”). *Id.* ¶ 163. In the REST model, “the service being invoked is the URI being accessed through the web.” *Id.* In the SOAP model, “the content of the message is generally thought to

describe the service being invoked, with the resource at the URI that the SOAP message is being sent to, as a routing mechanism.” *Id.*

2. *Claim 1*

Claim 1 recites “operating a telephony network and internet connected system cooperatively with a plurality of application programming Interface (API) resources.” Ex. 1001, 18:30–33. Maes teaches a telephony network and Internet-connected system. Pet. 14–16; Ex. 1003, Fig. 11 (showing “PSTN” and “IP Network”). Maes also teaches that the network and system operate cooperatively with a plurality of API resources, such as API resources for setting up, transferring, and recording a call. Pet. 16; Ex. 1003, 34:20–35:8.

Patent Owner responds that “Petitioner makes no attempt to show how Maes’s telephony-based servers, which Petitioner alleges are ‘a plurality of API resources’ . . . are identifiable through their URIs nor how any server is available through an API.”⁶ PO Resp. 15–16. Patent Owner’s argument is not persuasive. Petitioner does not rely solely on Maes’s telephony servers as teaching a plurality of resources. Rather, Petitioner explains that Maes’s telephony gateway, TEL 20, includes various resources that allow an application to modify the state of a telephony session, such as setting up, transferring, and recording a call. Pet. 16 (citing Ex. 1003, 34:20–35:8). Petitioner also explains that because an application accesses the aforementioned resources by sending a SOAP message over the Internet, those resources are available through an API. Pet. 20–21 (citing Ex. 1003,

⁶ Patent Owner argues that Maes “disparages proprietary APIs.” PO Resp. 15 (citing Ex. 1003, 2:30–40). Even if Maes disparages proprietary APIs, Maes nonetheless teaches using APIs generally. Ex. 1003, 8:10–15.

16:4–8, 34:20–35:28; Ex. 1009 ¶¶ 59–60). And although the term “API resource” does not by itself require the resource to be identifiable by a URI (*see supra* Section II.B.2), Petitioner explains how the combination of Maes and Ransom teaches an API resource identifiable by a URI in its discussion of the term “an API resource URI” (Pet. 24–27).

Claim 1 recites “initiating a telephony session.” Ex. 1001, 18:34. Maes teaches a voice response system that receives and accepts an incoming call. Pet. 16–17; Ex. 1003, 15:44–48, 15:63–65. Patent Owner does not dispute that the combination of Maes and Ransom teaches this limitation of claim 1.

Claim 1 recites “communicating with an application server to receive an application response.” Ex. 1001, 18:35–36. Maes teaches that a router sends a message to an application on an application server, and the application sends a response to a telephony gateway. Pet. 17–18; Ex. 1003, 15:59–65, 16:14–26. Patent Owner does not dispute that the combination of Maes and Ransom teaches this limitation of claim 1.

Claim 1 recites “converting the application response into executable operations to process the telephony session.” Ex. 1001, 18:37–38. Maes teaches that after receiving an application’s response, a telephony gateway, TEL 20, executes telephony actions, such as playing a text-to-speech stream, recording to an automatic speech recognition (“ASR”) port, and collecting dual tone multi-frequency (“DTMF”) digits. Pet. 18–19; Ex. 1003, 16:14–26. Patent Owner does not dispute that the combination of Maes and Ransom teaches this limitation of claim 1.

Claim 1 recites “creating at least one informational API resource.” Ex. 1001, 18:39. Maes teaches that after receiving an application’s

response, a telephony gateway, TEL 20, collects DTMF digits. Pet. 19–20; Ex. 1003, 34:20–35:8, 35:29–31. Patent Owner does not dispute that the combination of Maes and Ransom teaches this limitation of claim 1.

Claim 1 recites “exposing the plurality of API resources through a representational state transfer (REST) API.” Ex. 1001, 18:40–41. Maes teaches that an application accesses a plurality of resources through a SOAP API, specifically by sending a SOAP message over the Internet. Pet. 20–21; Ex. 1003, 16:4–8, 34:20–35:28; Ex. 1009 ¶ 59. Ransom teaches that resources also can be accessed using a REST API. Pet. 21–22; Ex. 1004 ¶¶ 161–163, 184–185; Ex. 1009 ¶ 62. Thus, the combination of Maes and Ransom teaches accessing a plurality of API resources through a REST API. Pet. 23; Ex. 1009 ¶ 62.

Patent Owner responds that Petitioner improperly “points to different alleged ‘API resources’ in Maes” for the “operating” and “exposing” limitations of claim 1. PO Resp. 16. Patent Owner’s argument is not persuasive. For both the “operating” and “exposing” limitations of claim 1, Petitioner explains that Maes’s telephony gateway, TEL 20, includes a plurality of API resources, such as API resources for setting up, transferring, and recording a call. *Compare* Pet. 16 (“Maes teaches that TEL 20, includes various functionalities that allow an application to modify the state of a telephony session, such as setting up a call, transferring a call, and recording audio during a call.”), *with id.* at 20–21 (“Maes discloses several resources accessible via an API. . . . For example, by sending a control message over the Internet to TEL20, application 14 can access resources that initiate, terminate, or transfer a call, such as ‘MakeCall,’ ‘DropCall,’ ‘TransferCall,’ etc.”).

Patent Owner responds that “Petitioner has not shown how the enumeration values are identifiable through their URIs, nor how they are accessible via an API.” PO Resp. 16–17. Patent Owner’s argument is not persuasive. Petitioner explains that because an application accesses the resources of telephony gateway, TEL 20, by sending a SOAP message over the Internet, those resources are available through an API. Pet. 20–21 (citing Ex. 1003, 16:4–8, 34:20–35:28; Ex. 1009 ¶ 59). And, although the term “API resource” does not by itself require the resource to be identifiable by a URI (*see supra* Section II.B.2), Petitioner explains how the combination of Maes and Ransom teaches an API resource identifiable by a URI in its discussion of the term “an API resource URI” (Pet. 24–27).

Patent Owner responds that Petitioner does not show that Ransom teaches a REST API that complies with “the four REST conventions,” which are “(1) identification of resources; (2) manipulation of resources through representations; (3) self-descriptive messages and (4) hypermedia as the engine of application state.” PO Resp. 17–18. Patent Owner’s argument is not persuasive. Patent Owner acknowledges that the four REST conventions are based on “the *common* understanding that a POSA would have had of a ‘REST API’ at the time of the invention.” *Id.* at 10–11 (emphasis added). And Ransom teaches the “*common*” REST web service model. Ex. 1004 ¶ 163 (emphasis added). Thus, a person of ordinary skill in the art reading Ransom would have understood Ransom as teaching the common REST API that complies with the four REST conventions. *Id.* Further, Petitioner’s declarant, Dr. Nielson, explains how Ransom’s REST API complies with the four REST conventions. Pet. Reply 9; Ex. 1019 ¶¶ 4–14.

Patent Owner responds that Ransom does not teach “how to use a ‘REST API’ to expose a single API resource nor a plurality of API resources.” PO Resp. 18. Patent Owner’s argument is not persuasive. As discussed, Maes teaches exposing a plurality of resources using a SOAP API. Pet. 20–21; Ex. 1003, 16:4–8, 34:20–35:28; Ex. 1009 ¶ 59. As also discussed, Ransom teaches that a resource can be exposed using another common API, namely a REST API. Pet. 21–22; Ex. 1004 ¶¶ 161–163, 184–185; Ex. 1009 ¶ 62. And Petitioner’s declarant, Dr. Nielson, explains specifically that it would have been within the capabilities of a person of ordinary skill in the art to implement Maes’s system using a REST API instead of a SOAP API. Pet. 23–24; Ex. 1009 ¶¶ 62–75.

Patent Owner responds that Ransom teaches away from using a REST API because Ransom teaches that an XML firewall will eliminate all non-SOAP traffic. PO Resp. 19. Patent Owner’s argument is not persuasive. Even if Ransom describes one specific type of firewall that would block REST messages (Ex. 1004 ¶ 157), Ransom still teaches using a REST API with other firewalls (*id.* ¶ 185).

Claim 1 recites “receiving a REST API request that specifies an API resource URI.” Ex. 1001, 18:42–43. Maes teaches that a telephony gateway, TEL 20, receives a SOAP message that specifies an API resource, such as “MakeCall,” “TransferCall,” or “Record.” Pet. 24–26; Ex. 1003, 34:20–35:28, Fig. 1; Ex. 1009 ¶¶ 77–78. Ransom teaches using a REST message that specifies the URI of an API resource. Pet. 26–27; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶¶ 62, 79. Thus, the combination of Maes and Ransom teaches receiving a REST API request that specifies an API resource URI. Pet. 28; Ex. 1009 ¶ 82.

Patent Owner responds that “Petitioner relies on Maes for ‘API resource URI’ but separates the ‘URI’ from ‘API resource.’” PO Resp. 29. Specifically, Patent Owner argues that “Petitioner points to an enumeration value as the ‘API resource’ while pointing to a URI for a server.” *Id.* Patent Owner also argues that “Maes does not list TEL 20 as having a URI.” *Id.* at 30. Patent Owner’s arguments are not persuasive because Patent Owner addresses Maes individually, not the combination of Maes and Ransom proposed by Petitioner. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”). As discussed, Maes teaches that a telephony gateway, TEL 20, receives a SOAP message that specifies an API resource, such as “MakeCall,” “TransferCall,” or “Record” (Pet. 24–26; Ex. 1003, 34:20–35:28, Fig. 1; Ex. 1009 ¶¶ 77–78), and Ransom teaches using a REST message that specifies the URI of an API resource (Pet. 26–27; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶ 79). Thus, even if Maes alone does not teach an API resource URI, the combination of Maes and Ransom teaches receiving a REST API request that specifies an API resource URI. Pet. 28; Ex. 1009 ¶ 82.

Patent Owner responds that “to the extent Petitioner is relying on Ransom for ‘URI’ and Maes for ‘API resource,’ its position is flawed” because “Petitioner does not explain how any URI in Ransom could identify any alleged API resource in Maes.” PO Resp. 30. Patent Owner also argues that Petitioner does not show that Maes teaches an API request or that Ransom teaches a REST API. *Id.* at 31. Patent Owner’s arguments are not persuasive. As discussed, Maes teaches receiving a SOAP message that specifies an API resource. Pet. 24–26; Ex. 1003, 34:20–35:28, Fig. 1; Ex.

1009 ¶¶ 77–78. As also discussed, Ransom teaches using a REST message that specifies the URI of an API resource. Pet. 26–27; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶ 79. And Petitioner’s declarant, Dr. Nielson, explains specifically that it would have been within the capabilities of a person of ordinary skill in the art to implement Maes’s system using a REST API instead of a SOAP API. Pet. 28; Ex. 1009 ¶¶ 62–75, 81.

Claim 1 recites “responding to the API request according to the request and the specified resource URI.” Ex. 1001, 18:44–45. Maes teaches that a telephony gateway, TEL 20, responds to an API request that specifies an API resource, such as “MakeCall,” “TransferCall,” or “Record,” by modifying the state of a telephony session according to the request and the specified resource, such as by initiating, transferring, or recording a call. Pet. 29; Ex. 1003, 16:24–44, 35:25–28.

Patent Owner responds that the portions of Maes cited by Petitioner do not teach responding to the API request according to the specified resource URI. PO Resp. 33. Specifically, Patent Owner argues that column 16, lines 24–26 of Maes relates to a task manager, not TEL 20, and that column 35, lines 25–28 of Maes relates to both play and record resources, not just a single specified resource. *Id.* at 33–34. Patent Owner’s argument is not persuasive. Column 16, lines 24–26 of Maes teaches that the task manager “wait[s]” for a “response[]” from the telephony gateway, TEL 20, and, thus, teaches that TEL 20 responds to the API request. Ex. 1003, 16:21–26. Also, column 35, lines 25–28 of Maes teaches that the request may include “play *and/or* record” resources, and, thus, Maes teaches that the response may relate to a single specified resource. *Id.* at 35:25–28 (emphasis added).

Patent Owner responds that Petitioner relies on TEL 20's URI for the "receiving" limitation, but does not rely on TEL 20's URI for the "responding" limitation. PO Resp. 34. Patent Owner's argument is not persuasive. Petitioner does not rely solely on Maes to teach an API resource URI. Rather, as discussed, Maes teaches receiving and responding to an API request for an API resource, such as "MakeCall," "TransferCall," or "Record" (Pet. 24–26, 29; Ex. 1003, 16:24–44, 34:20–35:28; Ex. 1009 ¶¶ 77–78), and Ransom teaches that an API request can be a REST API request that specifies an API resource URI (Pet. 26–27; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶¶ 62, 79).

Patent Owner responds that Petitioner relies solely on Maes for the "responding" limitation. PO Resp. 34. Patent Owner's argument is not persuasive. For the "receiving" limitation, Petitioner relies on the combination of Maes and Ransom to teach receiving a REST API request that specifies an API resource URI. Pet. 24–28; Ex. 1003, 34:20–35:28, Fig. 1; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶¶ 62, 77–82. For the "responding" limitation, Petitioner then relies on Maes to further teach responding to an API request that specifies an API resource by modifying the state of a telephony session according to the request and the specified resource. Pet. 29; Ex. 1003, 16:24–44, 35:25–28. Thus, when Petitioner's arguments and evidence regarding the "receiving" and "responding" limitation are considered together, Petitioner shows that the combination of Maes and Ransom teaches responding to the REST API request according to the specified API resource URI.

3. *Claim 2*

Claim 2 depends from claim 1, and recites “wherein the specified API resource URI is a URI of a functional API resource.” Ex. 1001, 18:46–47. As discussed, the combination of Maes and Ransom teaches receiving a REST API request that specifies an API resource URI. Pet. 24–28; Ex. 1003, 34:20–35:28, Fig. 1; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶¶ 62, 77–82. Maes further teaches that the API resource is a functional API resource, such as “MakeCall,” “TransferCall,” or “Record,” and, thus, the aforementioned URI is a URI of a functional API resource. Pet. 30–31; Ex. 1003, 16:24–26, 34:20–35:28.

Patent Owner responds that the URI of Maes’s TEL 20 does not specify what Petitioner identifies as a functional API resource. PO Resp. 35. Patent Owner’s argument is not persuasive. As discussed, Maes teaches that a telephony gateway, TEL 20, receives a SOAP message that specifies a functional API resource, such as “MakeCall,” “TransferCall,” or “Record” (Pet. 24–26; Ex. 1003, 34:20–35:28, Fig. 1; Ex. 1009 ¶¶ 77–78), and Ransom teaches using a REST API message that specifies the URI of an API resource (Pet. 26–27; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶¶ 62, 79). Thus, even if Maes alone does not teach a functional API resource URI, the combination of Maes and Ransom teaches a functional API resource URI. Pet. 28; Ex. 1009 ¶ 82.

Patent Owner responds that Petitioner does not rely on Ransom for claim 2. PO Resp. 35. Patent Owner’s argument is not persuasive. As discussed for claim 1, Petitioner relies on Ransom to teach an API resource URI. Pet. 26–27 (citing Ex. 1004 ¶¶ 163, 185). For claim 2, Petitioner then relies on Maes to further show that the API resource from claim 1 is a

functional resource, and, thus, that the URI from claim 1 specifies a functional API resource. Pet. 30–31 (citing Ex. 1003, 16:24–26, 34:20–35:28).

4. *Claim 3*

Claim 3 depends from claim 2, and recites “wherein responding to the API request, prompts the initiation of the telephony session.” Ex. 1001, 18:48–49. Maes teaches responding to a “MakeCall” API request by initiating a telephony session. Pet. 31–32; Ex. 1003, 34:20–35:28. Patent Owner does not dispute that the combination of Maes and Ransom teaches the limitation of claim 3.

5. *Claim 14*

Claim 14 depends from claim 2, and recites “receiving a second REST API request that specifies an informational API resource URI, and responding to the second API request according to the second request by delivering queried data of the informational API resource.” Ex. 1001, 19:18–22. Maes teaches that an application sends a SOAP message to a telephony gateway, TEL 20, requesting a prerecorded file or text-to-speech stream for use during a call (i.e., an information API resource), and the telephony gateway responds by returning the requested data file (i.e., the queried data). Pet. 33–34; Ex. 1003, 16:21–24. And, as discussed, Ransom teaches using a REST API message that specifies the URI of an API resource. Pet. 26–27, 34; Ex. 1004 ¶¶ 163, 185; Ex. 1009 ¶ 79.

Patent Owner responds that “Petitioner does not even attempt to identify ‘an informational API resource **URI**.’” PO Resp. 36. Patent Owner’s argument is not persuasive. As discussed for claim 1, Petitioner relies on Ransom to teach an API resource URI. Pet. 26–27, 33 (citing Ex.

1004 ¶¶ 163, 185). For claim 14, Petitioner then relies on Maes to further show that the API resource from claim 1 is an informational API resource, and, thus, that the URI from claim 1 specifies an informational API resource. Pet. 33–34 (citing Ex. 1003, 16:21–24).

Patent Owner responds that “Petitioner does not identify what it alleges is ‘the informational API resource’ in the prior art.” PO Resp. 36. Patent Owner’s argument is not persuasive. Petitioner identifies the functionality of a telephony gateway, TEL 20, that provides a prerecorded file or text-to-speech stream as the informational API resource. Pet. 33–34 (citing Ex. 1003, 16:21–24).

Patent Owner responds that Petitioner does not explain how Maes’s queried data is “tied to” the informational API resource. PO Resp. 36–37. Patent Owner’s argument is not persuasive. Petitioner explains that TEL 20’s aforementioned functionality (i.e., the informational API resource) returns a specific prerecorded file or text-to-speech stream (i.e., the queried data) in response to an API request. Pet. 33–34 (citing Ex. 1003, 16:21–24).

Patent Owner responds that Petitioner does not provide any “explanation or support” from Ransom to show that a REST API request was well known in the art. PO Resp. 37. Patent Owner’s argument is not persuasive. For claim 14, Petitioner refers back to its discussion of Ransom for claim 1, which, as discussed, shows that it was well known to use a REST API request. Pet. 34; *see supra* Section II.C.2.

6. Claim 16

Claim 16 depends from claim 1, and recites “wherein the specified API resource URI is a URI of an informational API resource; and wherein responding to the API request according to the request and the specified

resource URI includes returning data of the informational API resource.”

Ex. 1001, 19:27–31. Maes teaches that an application sends a message to a telephony gateway, TEL 20, requesting that it play a message and record a caller’s response or collect DTMF digits (i.e., an informational API resource), and the telephony gateway responds by providing the number of bytes recorded or the collected digits (i.e., the returned data). Pet. 34; Ex. 1003, 34:20–35:32.

Patent Owner responds that Petitioner does not identify an informational API resource or a URI of an informational API resource. PO Resp. 37. Patent Owner’s argument is not persuasive. Petitioner identifies TEL 20’s functionality that plays a message and records a caller’s response and/or collects DTMF digits as teaching an informational API resource. Pet. 34 (citing Ex. 1003, 34:20–35:32). As discussed for claim 1, Petitioner relies on Ransom to teach an API resource URI. Pet. 26–27 (citing Ex. 1004 ¶¶ 163, 185). For claim 16, Petitioner then relies on Maes to further show that the API resource from claim 1 is an informational API resource, and, thus, that the URI from claim 1 specifies an informational API resource. Pet. 34 (citing Ex. 1003, 34:20–35:32).

Patent Owner responds that Petitioner improperly relies on Maes’s collected digits to teach both an informational API resource and the returned data of the informational API resource. PO Resp. 37–38. Patent Owner’s argument is not persuasive. Petitioner identifies TEL 20’s functionality that plays a message and records a caller’s response or collects DTMF digits as teaching an informational API resource, and identifies the number of bytes recorded or the collected digits as teaching the returned data. Pet. 20–21 (identifying TEL 20’s functionality, such as “CollectDigits” and “MakeCall”

as the API resources); *id.* at 34 (identifying product of TEL 20's functionality, such as the collected digits, as the returned data).

7. *Claim 19*

Claim 19 depends from claim 16, and recites “wherein the returned data is data on an in-progress telephony session.” Ex. 1001, 19:36–37.

Maes teaches that an application sends a request to an ASR server to recognize speech during a call, and the ASR server responds with the recognized speech. Pet. 35; Ex. 1003, 8:26–32, 16:4–11, 36:34–38.

Patent Owner responds that Petitioner improperly relies on Maes's collected digits for the returned data in claim 16 and on Maes's recognized speech for the returned data in claim 19. PO Resp. 38–39. Patent Owner's argument is not persuasive. Although Petitioner relies on a different informational API resource and returned data for claims 16 and 19, Petitioner shows that Maes's ASR and recognized speech meet the limitations of both claims 16 and 19. Specifically, Petitioner shows that the ASR's functionality is an informational API resource because it responds to requests to recognize speech, and that the recognized speech is the data returned in response to the request. Pet. 35; Ex. 1003, 8:26–32, 16:4–11, 36:34–38.

Patent Owner responds that Petitioner fails to identify any portion of Maes indicating that the returned data is for an in-progress telephony session. PO Resp. 39. Patent Owner's argument is not persuasive. Maes teaches that the ASR recognizes speech “for the purpose of processing commands and data input received from the user,” which indicates that the ASR recognizes speech and returns data for an in-progress call. Ex. 1003, 8:26–32.

8. *Reasons for Combining Maes and Ransom*

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the cited teachings of Maes and Ransom. Pet. 12, 14, 22–24, 27–29 (citing Ex. 1009 ¶¶ 51–58, 62–75, 80–82, 88). We agree with and adopt Petitioner’s reasoning. Specifically, Maes and Ransom relate to the same field of endeavor as the ’376 patent, namely, web services. Pet. 12, 14; Ex. 1001, 1:66–2:10, 15:51–61; Ex. 1003, 3:52–65; Ex. 1004 ¶¶ 5, 42, 46, 57–58, 69–70, 78; Ex. 1009 ¶¶ 51–58. It would have been obvious to combine the cited teachings of Maes and Ransom because Ransom’s REST API is a common web service model that provides similar functionality and has several design advantages over Maes’s SOAP API, such as increased interface flexibility and lower bandwidth requirements. Pet. 22–24, 27–29; Ex. 1004 ¶ 163; Ex. 1009 ¶¶ 62–75, 80–82. It also would have been obvious to combine the cited teachings of Maes and Ransom because the teachings of Maes and Ransom are interrelated. Pet. 24, 28–29; Ex. 1009 ¶ 88; see *KSR*, 550 U.S. at 418 (“Often, it will be necessary . . . to look to interrelated teachings of multiple patents.”). Namely, Maes teaches using a web service (Ex. 1003, 3:52–65, 15:66–16:4; Ex. 1009 ¶ 88), and Ransom explains that REST is one of two common web service models (Ex. 1004 ¶ 163; Ex. 1009 ¶ 88).

Patent Owner responds that Ransom is not analogous art because it is not in the same field of endeavor as the ’376 patent and is not reasonably pertinent to a particular problem with which the inventors of the ’376 patent were involved. PO Resp. 19–22, 31. Patent Owner argues that the field of endeavor for the ’376 patent is telephony, whereas the field of endeavor for Ransom is electric power distribution. *Id.* at 20–21. Patent Owner also

argues that the '376 patent sought to solve the problem of “developing software applications that interact with and use older, complex telephony network systems,” whereas Ransom sought to solve the problem of “transporting data relating to electric power distribution between networks through firewalls and other network security barriers.” *Id.* at 21–22.

Patent Owner’s argument is not persuasive. “The Supreme Court’s decision in *KSR* . . . directs us to construe the scope of analogous art broadly.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010). As such, “[t]he field of endeavor of a patent is not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field.” *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1001 (Fed. Cir. 2016). Here, the '376 patent is directed to “making telephony application development as easy as web programming” by using “the familiar web site visitor model” that allows developers to “reuse their existing tools and techniques.” Ex. 1001, 1:66–2:10; Ex. 1009 ¶ 54. Ransom is directed to transporting data between a mix of secure and unsecure networks in an electric power distribution system using “a communication network” that “is a publicly accessible data network such as the Internet or other network or combination of sub-networks that transmit data utilizing the transmission control protocol/internet protocol (‘TCP/IP’) protocol suite.” Ex. 1004 ¶¶ 5, 58; Ex. 1009 ¶ 57. Thus, both the '376 patent and Ransom are directed to the field of web services, with the '376 patent focusing on telephony applications and Ransom focusing on electric power distribution applications. Ex. 1009 ¶ 58; see *Unwired Planet*, 841 F.3d at 1001 (“Here, both Galitz and the '205 patent are in the field of

interface design, with Galitz focusing on graphical user interfaces and the '205 patent focuses on interfaces for location-based services.”).

Patent Owner responds that “Petitioner ignores the majority of the rationales for motivation to combine provided by the Supreme Court in *KSR*.” PO Resp. 23, 32. Patent Owner’s argument is not persuasive. Petitioner does not have to address a majority of the possible reasons for combining prior art provided in *KSR*. As discussed, Petitioner submits evidence showing that it would have been obvious under *KSR* to combine the cited teachings of Maes and Ransom because Ransom’s REST API is a common web service model that provides similar functionality and has several design advantages over Maes’s SOAP API, such as increased interface flexibility and lower bandwidth requirements. Pet. 22–24, 27–29; Ex. 1004 ¶ 163; Ex. 1009 ¶¶ 62–75, 80–82. Petitioner also submits evidence showing that it would have been obvious to combine the cited teachings of Maes and Ransom because the teachings of Maes and Ransom are interrelated. Pet. 24, 28–29; Ex. 1009 ¶ 88; *see KSR*, 550 U.S. at 418 (“Often, it will be necessary . . . to look to interrelated teachings of multiple patents”).

Patent Owner responds that

SOAP allows a single message to include a complex request that may affect multiple network components. For that reason, SOAP was preferred for complex applications like those involving a telephony network, because implementing the same request in a REST architecture may require using a large number of HTTP requests, each addressing a single resource. Petitioner’s proposed combination would require scrapping the SOAP architecture of Maes—which uses SOAP requests that identify multiple enumeration values and are parsed and handled by intermediaries—in favor of a completely different

architecture, in which each request directly exposes one individually addressable resource.

PO Resp. 23–24 (citations omitted); *see id.* at 32–33; Tr. 62:19–64:24, 67:8–17. Patent Owner’s argument is not persuasive. First, Maes explains that SOAP is preferable, but not required. Ex. 1003, 8:10–14 (“or through other APIs”), 15:66–16:4 (“using, e.g., SOAP”), 39:57–60 (“it is not required”). Second, it was well known that SOAP and REST can be used to implement similar functionality. Ex. 1009 ¶¶ 70–71; Ex. 2012, 1 (“Both REST and SOAP are often termed ‘Web services,’ and one is often used in place of the other.”), 2 (“[B]oth REST and SOAP can be used to implement similar functionality.”). Third, even if using REST instead of SOAP would have had some disadvantages, such as requiring a large number of HTTP requests, it was well known that using REST instead of SOAP would have had several advantages, such as increased interface flexibility and simpler development. Ex. 1009 ¶¶ 72–74; Ex. 1011, 1 (“Interface Flexibility . . . Lighter on Bandwidth”); Ex. 1013, 1 (“Lightweight . . . Human Readable Results . . . Easy to build”); Ex. 2013, 5 (“Language and platform agnostic[;] Much simpler to develop than SOAP[;] Small learning curve, less reliance on tools[;] Concise, no need for additional messaging layer[;] Closer in design and philosophy to the Web”). Thus, the evidence of record shows that a person of ordinary skill in the art would have had reason to use Ransom’s REST API with Maes’s system.⁷ Ex. 1009 ¶¶ 70–75.

⁷ Patent Owner does not dispute Petitioner’s assertion and evidence that any changes needed to use Ransom’s REST API with Maes would have been within the capabilities of a person of ordinary skill in the art. *See* PO Resp. 23–24; Ex. 1009 ¶¶ 70–71.

Patent Owner responds that Petitioner's rationale is supported only by its declarant, Dr. Nielson, and Petitioner does not show how or why the proposed combination would have been obvious. PO Resp. 24. Patent Owner's argument is not persuasive. Dr. Nielson explains that it was well known that Ransom's REST API is a common web service model that provides similar functionality and has several design advantages over Maes's SOAP API. Ex. 1009 ¶¶ 62–75. Dr. Nielson's testimony is supported by the documentary evidence of record. Ex. 1011, 1 (“Interface Flexibility . . . Lighter on Bandwidth”); Ex. 1013, 1 (“Lightweight . . . Human Readable Results . . . Easy to build”); Ex. 2012, 1 (“Both REST and SOAP are often termed ‘Web services,’ and one is often used in place of the other.”), 2 (“[B]oth REST and SOAP can be used to implement similar functionality.”); Ex. 2013, 5 (“Language and platform agnostic[;] Much simpler to develop than SOAP[;] Small learning curve, less reliance on tools[;] Concise, no need for additional messaging layer[;] Closer in design and philosophy to the Web”).

Patent Owner responds that “Petitioner does not identify any deficiency or disadvantage in Maes that would cause a POSA to try to modify it,” and that “nothing in Ransom suggests that the differences between SOAP and REST are mere design choices—particularly in a telephony system.” PO Resp. 24–26. Patent Owner's arguments are not persuasive. Maes and Ransom alone do not have to provide a rationale for the proposed combination. As discussed, Dr. Nielson's testimony and additional documentary evidence show that it was well known that Ransom's REST API is a common web service model that provides similar functionality and has several design advantages over Maes's SOAP API,

and, thus, a person of ordinary skill in the art would have had reason to use Ransom's REST API with Maes's system. Ex. 1009 ¶¶ 62–75; Ex. 1011, 1 (“Interface Flexibility . . . Lighter on Bandwidth”); Ex. 1013, 1 (“Lightweight . . . Human Readable Results . . . Easy to build”); Ex. 2012, 1 (“Both REST and SOAP are often termed ‘Web services,’ and one is often used in place of the other.”), 2 (“[B]oth REST and SOAP can be used to implement similar functionality.”); Ex. 2013, 5 (“Language and platform agnostic[;] Much simpler to develop than SOAP[;] Small learning curve, less reliance on tools[;] Concise, no need for additional messaging layer[;] Closer in design and philosophy to the Web”).

Patent Owner responds that Dr. Nielson's testimony regarding the reason for combining Maes and Ransom should be given little weight because 1) in a related case, Dr. Nielson testified that the term “REST API” is indefinite; and 2) Dr. Nielson “has little experience relating to telephony.” PO Resp. 27–28. Patent Owner's argument is not persuasive. First, Dr. Nielson's testimony in this case regarding the rationale for combining Maes and Ransom contains detailed explanations and is supported by the documentary evidence of record. Ex. 1009 ¶¶ 62–75; Ex. 1011, 1; Ex. 1013, 1; Ex. 2012, 1–2; Ex. 2013, 5. Second, Patent Owner does not contend that Dr. Nielson lacks experience relating to the REST and SOAP web services that are the focus of the proposed combination. See PO Resp. 27–28.

9. *Objective Indicia of Non-Obviousness*

Patent Owner argues that certain objective indicia, including copying, commercial success, industry praise, and long-felt but unmet need, demonstrate non-obviousness of the challenged claims. PO Resp. 57–64.

a. *Copying*

Patent Owner argues that Petitioner’s co-founder had access to Patent Owner’s technology and “used that access to copy Patent Owner’s technology.” PO Resp. 58. Specifically, Patent Owner contends that Petitioner’s co-founder executed a non-disclosure agreement (“NDA”) with Patent Owner in 2010 “to gain access to its technology” and then “created multiple accounts to access Patent Owner’s products.” *Id.* (citing Ex. 2017 ¶ 66; Ex. 2018; Exs. 2063–2066). Patent Owner also contends that Petitioner initially provided only SOAP-based products and then developed REST-based products after it “had access to and used Patent Owner’s patented technology.” PO Resp. 58–59 (citing Ex. 2015; Exs. 2025–2027; Ex. 2041; Exs. 2063–2066). To show a nexus between the alleged copying and the challenged claims, Patent Owner argues that its Programmable Voice and Programmable Messaging products embody claim 1 of the ’376 patent. PO Resp. 59–61 (citing 2010 ¶¶ 135–149; Ex. 2016, 5).⁸

The evidence of record does not show that Petitioner had access to and copied the Programmable Voice and Programmable Messaging products. The NDA states that Petitioner had access to Patent Owner’s

⁸ To show that the Programmable Voice and Programmable Messaging products embody claim 1, Patent Owner relies on its declarant, Dr. Negus, who relies primarily on discussions he had with one of the inventors, Mr. John Wolthuis. Ex. 2010 ¶¶ 144–149. Patent Owner does not provide a limitation-by-limitation comparison of the Programmable Voice and Programmable Messaging products to claim 1 (Tr. 82:24–83:12), or provide much documentary evidence to corroborate Dr. Negus’s discussions with Mr. Wolthuis (Ex. 2010 ¶ 148 (citing Exs. 2069, 2070)). But, because there is no prejudice to Petitioner, this Decision assumes that the Programmable Voice and Programmable Messaging products embody claim 1.

“business model,” “development and launch schedule,” “technical architecture plans,” “programming model,” “Application Programming Interfaces (API),” “marketing plan,” “business and/or financial projections,” and “clients.” Ex. 2041, 3. But Patent Owner does not explain how the NDA shows that Petitioner had access to and copied the specific Programmable Voice and Programmable Messaging products. See PO Resp. 58–59; Tr. 75:16–76:7, 77:20–78:4; Ex. 2041, 1–3. Similarly, Patent Owner does not explain how the accounts created by Petitioner’s co-founder show that Petitioner had access to and copied the specific Programmable Voice and Programmable Messaging products. See PO Resp. 58–59; Tr. 75:16–76:7, 77:20–78:4; Exs. 2063–2066.

Further, Patent Owner’s copying allegation focuses on Petitioner’s change from a SOAP-based product to a REST-based product. PO Resp. 58–59. However, Patent Owner acknowledged at the oral hearing that REST is not the point of novelty of the ’376 patent. Tr. 45:4–7 (“REST and SOAP are just implementation methods . . . that’s not what the point of novelty of these patents is at all.”), 57:13–15 (“SOAP and REST are just languages, API, they’re formats. There’s nothing special about either of them.”). As a result, even if Petitioner changed from a SOAP-based product to a REST-based product, that would not show that Petitioner copied the novel aspects of the ’376 patent.

Therefore, because the evidence of record indicates that Petitioner had access to some of Patent Owner’s technology, but does not show specifically that Petitioner copied the invention claimed in the ’376 patent, the objective indicia of copying at best only weighs slightly in favor of non-obviousness.

b. *Commercial Success*

Patent Owner argues that its products achieved significant commercial success. PO Resp. 61–63. Specifically, Patent Owner contends that it generated \$166.9 million in revenue in 2015 and generated \$4.6 billion in market capitalization in 2016. *Id.* at 61–62 (citing Ex. 2020, 2; Ex. 2038, 70). To show a nexus between the alleged commercial success and the challenged claims, Patent Owner again relies on its Programmable Voice and Programmable Messaging products. PO Resp. 59–62. Patent Owner contends that its revenue is attributable to “practicing products (Programmable Voice; Programmable Messaging; and Programmable Video).” *Id.* at 62 (citing Ex. 2038, 72, 78; Ex. 2067, 4, 5).

The evidence of record indicates that Patent Owner’s products achieved commercial success. Ex. 2038, 70. But the evidence of record also indicates that the success is attributable to several different products, not just the Programmable Voice and Programmable Messaging products. *Id.* at 78 (“We derive our revenue primarily from usage-based fees These usage-based software products include our Programmable Voice, Programmable Messaging and the recently introduced Programmable Video products.”); Ex. 2067, 5 (“Programmable Messaging . . . Programmable Voice . . . Phone Numbers, Other”). Patent Owner does not identify specifically what portion of its revenue is attributable to the Programmable Voice and Programmable Messaging products. See PO Resp. 61–63. Nonetheless, because the evidence indicates that some of Patent Owner’s commercial success is attributable to the Programmable Voice and Programmable Messaging products, the objective indicia of commercial success weighs in favor of non-obviousness.

c. *Industry Praise*

Patent Owner argues that its products received industry praise. PO Resp. 63–64. Patent Owner points to three articles discussing the benefits of Patent Owner’s REST-based products. *Id.* at 62 (citing Ex. 2022, 1; Ex. 2023, 1; Ex. 2029, 1). Patent Owner also asserts that Petitioner touted the release of its own REST-based product. PO Resp. 64 (citing Ex. 2015). To show a nexus between the alleged industry praise and the challenged claims, Patent Owner again relies on its Programmable Voice and Programmable Messaging products. PO Resp. 59–61, 63.

Even if the evidence of record shows industry praise of Patent Owner’s and Petitioner’s REST-based products generally, Patent Owner acknowledged at the oral hearing that REST is not the point of novelty of the ’376 patent. Tr. 45:4–7, 57:13–15. Further, as discussed above, the evidence of record indicates that Patent Owner offers several different REST-based products, not just the Programmable Voice and Programmable Messaging products. Ex. 2038, 78; Ex. 2067, 4–5. Nonetheless, because some of the articles cited by Patent Owner appear to praise the Programmable Voice and Programmable Messaging products specifically (Ex. 2022, 1 (“Twilio has gained a following among developers looking to include support for VoIP within an application.”); Ex. 2029, 1 (“features such as interactive voice response, mobile app distribution via SMS”)), the objective indicia of industry praise weighs slightly in favor of non-obviousness.

d. *Long-Felt but Unmet Need*

Patent Owner argues that other companies had a long-felt but unmet need for the solution provided by the ’376 patent. PO Resp. 64.

Specifically, Patent Owner argues that “Larian and Tribal Shout each developed and deployed telephony application services to users on custom application-specific platforms.” *Id.* (citing Ex. 2010 ¶¶ 155–158).

According to Patent Owner, Larian and Tribal Shout “failed,” but “may” have been successful if Patent Owner’s products existed at the time.

PO Resp. 64 (citing Ex. 2010 ¶ 158). Patent Owner, however, does not identify specific evidence indicating that either company actually expressed a need for the solution provided by the ’376 patent or that such a need was long-felt. *See* PO Resp. 64; Ex. 2010 ¶¶ 155–158. Further, Patent Owner’s argument that its products may have allowed Larian and Tribal Shout to succeed is based only on the subjective belief of Patent Owner’s declarant, Dr. Negus. Ex. 2010 ¶ 158 (“[I]f the Twilio’s Programmable Voice and Programmable Messaging products existed . . . , I believe both companies could have developed their respective services.”). Therefore, Patent Owner’s evidence of alleged long-felt but unmet need does not weigh in favor of non-obviousness.

10. *Totality of the Evidence*

For the reasons discussed above in Section II.C.1 through Section II.C.8, the evidence presented by Petitioner strongly indicates that claims 1–3, 14, 16, and 19 would have been obvious over Maes and Ransom. For the reasons discussed above in Section II.C.9, Patent Owner’s evidence of commercial success weighs in favor of non-obviousness, Patent Owner’s evidence of copying and industry praise weigh slightly in favor of non-obviousness, and Patent Owner’s evidence of long-felt but unmet need does not weigh in favor of non-obviousness. When considering all of the *Graham* factors, we find that Petitioner’s strong evidence of obviousness outweighs

Patent Owner's evidence of the objective indicia. Thus, when considering all the evidence of obviousness and non-obviousness together, see *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litigation*, 676 F.3d 1063, 1079 (Fed. Cir. 2012), we conclude that Petitioner has shown by a preponderance of the evidence that claims 1–3, 14, 16, and 19 would have been obvious over Maes and Ransom.

D. *Obviousness of Claims 5 and 17 over Maes, Ransom, and Jiang*
Petitioner argues that claims 5 and 17 would have been obvious over Maes, Ransom, and Jiang. Pet. 6. Based on the parties' arguments and supporting evidence, Petitioner has shown by a preponderance of the evidence that claims 5 and 17 would have been obvious over Maes, Ransom, and Jiang.

1. *Claim 5*

Claim 5 depends from claim 3, and recites “wherein initiating a telephony session includes sending a Short Message Service (SMS) message.” Ex. 1001, 18:53–55. Jiang teaches initiating a telephony session by sending an SMS message. Pet. 38; Ex. 1005, 39:24–62, Fig. 25. Patent Owner does not dispute that the combination of Maes, Ransom, and Jiang teaches the limitation of claim 5.

2. *Claim 17*

Claim 17 depends from claim 16, and recites “wherein the returned data is log of calls.” Ex. 1001, 19:32–33. Jian teaches storing call logs on a server for future retrieval. Pet. 39; Ex. 1005, 49:3–8, 50:14–16. Patent Owner does not dispute that the combination of Maes, Ransom, and Jiang teaches the limitation of claim 17.

3. *Reasons for Combining Maes, Ransom, and Jiang*

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the cited teachings of Maes, Ransom, and Jiang. Pet. 37, 39–40 (citing Ex. 1009 ¶¶ 85–90). We agree with and adopt Petitioner’s reasoning. Specifically, like Maes and Ransom, Jiang relates to the same field of endeavor as the ’376 patent, namely, web services. Pet. 37; Ex. 1001, 1:66–2:10, 15:51–61; Ex. 1005, 1:30–34, 5:30–6:3, 9:60–63, Fig. 3; Ex. 1009 ¶¶ 85–86. It would have been obvious to combine the cited teachings of Maes, Ransom, and Jiang because doing so would have been nothing more than using Jiang’s SMS functionality according to its established function to yield the predictable result of sending an SMS message over a telephony network. Pet. 39; Ex. 1005, 39:24–62, Fig. 25; Ex. 1009 ¶¶ 87–89; *see KSR*, 550 U.S. at 416 (“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”). It also would have been obvious to combine the cited teachings of Maes, Ransom, and Jiang because doing so would have been nothing more than using Jiang’s call log functionality according to its established function to yield the predictable result of returning a stored call log. Pet. 39–40; Ex. 1005, 49:3–8, 50:14–16; Ex. 1010 ¶ 90; *see KSR*, 550 U.S. at 416.

Patent Owner responds that “[m]erely stating that a POSA ‘would recognize that it would be beneficial’ to add additional functionality . . . does not meet Petitioner’s burden to provide motivation to combine.” PO Resp. 39. Patent Owner’s argument is not persuasive. As discussed, Petitioner does not simply state that it would be beneficial to add additional functionality, but, rather, explains how combining the cited teachings of

Maes, Ransom, and Jiang would have been nothing more than using Jiang's functionality according to its established function to yield a predictable result. Pet. 39–40; Ex. 1010 ¶¶ 87–90; see *KSR*, 550 U.S. at 416.

Patent Owner responds that “a POSA would not be motivated to combine Maes and Ransom with Jiang at least because Jiang is directed to a different problem than the '376 Patent.” PO Resp. 39. Patent Owner's argument is not persuasive. Even if Jiang is not reasonably pertinent to a particular problem with which the inventors of the '376 patent were involved, Jiang nonetheless relates to the same field of endeavor as the '376 patent, namely, web services. Pet. 37; Ex. 1001, 1:66–2:10, 15:51–61; Ex. 1005, 1:30–34, 5:30–6:3, 9:60–63, Fig. 3; Ex. 1009 ¶¶ 85–86.

4. *Totality of the Evidence*

For the reasons discussed above in Section II.D.1 through Section II.D.3, the evidence presented by Petitioner strongly indicates that claims 5 and 17 would have been obvious over Maes, Ransom, and Jiang. For the reasons discussed above in Section II.C.9, Patent Owner's evidence of commercial success weighs in favor of non-obviousness, Patent Owner's evidence of copying and industry praise weigh slightly in favor of non-obviousness, and Patent Owner's evidence of long-felt but unmet need does not weigh in favor of non-obviousness. When considering all of the *Graham* factors, Petitioner's strong evidence of obviousness outweighs Patent Owner's evidence of the objective indicia. Thus, when considering all the evidence of obviousness and non-obviousness together, see *In re Cyclobenzaprine*, 676 F.3d at 1079, Petitioner has shown by a preponderance of the evidence that claims 5 and 17 would have been obvious over Maes, Ransom, and Jiang.

E. *Obviousness of Claims 1–3, 5, 14, and 16 over ETSI 391-4 and Ransom*

Petitioner argues that claims 1–3, 5, 14, and 16 would have been obvious over ETSI 391-4 and Ransom. Pet. 6. Based on the parties' arguments and supporting evidence, Petitioner has not shown by a preponderance of the evidence that claims 1–3, 5, 14, and 16 would have been obvious over ETSI 391-4 and Ransom.

1. *Claim 1*

Claim 1 recites “exposing the plurality of API resources through a representational state transfer (REST) API.” Ex. 1001, 18:40–41. Petitioner does not identify any portion of ETSI 391-4 that teaches a REST API. Pet. 49–50. Petitioner instead relies on Ransom as teaching a REST API. Pet. 50. Petitioner argues that “Ransom establishes that it would have been an obvious matter of design choice to a POSA to use a REST API to expose resources as opposed to a SOAP API as ETSI ES 202 391-4 discloses.” Pet. 50. Petitioner similarly argues that “implementing the SOAP-based Parlay X SMS Web Service in conformance with the REST principles of Ransom, such that a telephony resource of the SMS Web Service API would have been an obvious matter of design choice.” Pet. 52. Patent Owner responds that it would not have been an obvious matter of design choice to replace ETSI 391-4's SOAP API with Ransom's REST API because ETSI 391-4 is part of a standard that requires using SOAP. PO Resp. 45–46.

ETSI 391-4 is part 4 of a multi-part standard promulgated by the European Telecommunications Standards Institute (“ETSI”) that covers Open Service Access. Ex. 1006, 2, 5. Part 1 of that standard specifies that “[a]ll Web Service messages SHALL send and accept messages that conform to the SOAP use defined in the WS-I Basic Profile.” Ex. 2011, 8.

In other words, ETSI391-4 is an ETSI standard that requires using SOAP.⁹ *Id.* Although there were well-known design advantages to using REST rather than SOAP (*see supra* Section II.C.8), those design advantages would not have provided a person of ordinary skill in the art with a reason to modify the express mandate of an ETSI standard to use SOAP with that standard (Ex. 2010 ¶ 394).

Petitioner contends that ETSI 391-4 “does not teach away from REST because it never even mentions, let alone criticizes, REST or any of its attributes.” Pet. Reply 18. The issue here is not whether ETSI 391-4 teaches away from REST. Rather, the issue is whether a person of ordinary skill in the art would have had a reason to modify the express mandate of an ETSI standard. As discussed, although there were well-known design advantages to using REST rather than SOAP (*see supra* Section II.C.8), those design advantages would not have provided a person of ordinary skill in the art with a reason to modify the express mandate of an ETSI standard to use SOAP with that standard (Ex. 2010 ¶ 394).

For the foregoing reasons, Petitioner has not shown by a preponderance of the evidence that claim 1 would have been obvious over ETSI 391-4 and Ransom.

2. *Claims 2, 3, 5, 14, and 16*

Claims 2, 3, 5, 14, and 16 depend, directly or indirectly, from claim 1. Petitioner’s arguments and evidence regarding claims 2, 3, 5, 14, and 16 do

⁹ In contrast, as discussed above, Maes is not a standard, and Maes explains that using SOAP is preferable, but not required. Ex. 1003, 8:10–14 (“or through other APIs”), 15:66–16:4 (“using, e.g., SOAP”), 39:57–60 (“it is not required”).

not compensate for the deficiency discussed above for claim 1. *See* Pet. 55–59. Therefore, because Petitioner has not shown by a preponderance of the evidence that claim 1 would have been obvious over ETSI 391-4 and Ransom, Petitioner also has not shown by a preponderance of the evidence that claims 2, 3, 5, 14, and 16 would have been obvious over ETSI 391-4 and Ransom. *See supra* Section II.E.1.

3. *Summary*

For the reasons discussed above, Petitioner has not shown by a preponderance of the evidence that claims 1–3, 5, 14, and 16 would have been obvious over ETSI 391-4 and Ransom.

F. *Obviousness of Claim 17 over ETSI 391-4, Ransom, and ETSI 391-7; Claim 19 over ETSI 391-4, Ransom, ETSI 391-2*

Petitioner argues that claim 17 would have been obvious over ETSI 391-4, Ransom, and ETSI 391-7; and that claim 19 would have been obvious over ETSI 391-4, Ransom, and ETSI 391-2. Pet. 6. Claims 17 and 19 depend indirectly from claim 1. Petitioner’s arguments and evidence regarding claims 17 and 19 do not compensate for the deficiency discussed above for claim 1. *See* Pet. 59–65. Therefore, because Petitioner has not shown by a preponderance of the evidence that claim 1 would have been obvious over ETSI 391-4 and Ransom, Petitioner also has not shown by a preponderance of the evidence that claims 17 and 19 would have been obvious over the above combinations. *See supra* Section II.E.1.

G. *Patent Owner’s Motion to Strike*

Patent Owner filed a Motion to Strike portions of Petitioner’s Reply (Paper 35, “PO Mot. Str.”), to which Petitioner filed an Opposition (Paper

40, “Pet. Opp. Str.”).¹⁰ Patent Owner argues that several portions of Petitioner’s Reply should be stricken because they are beyond the scope of a proper reply. PO Mot. Str. 1. Petitioner argues that the Reply is proper because it responds to arguments raised by Patent Owner in the Response. Pet. Opp. Str. 1. We have considered the parties’ arguments, and, for the reasons discussed below, Patent Owner’s Motion to Strike is *denied-in-part* and *dismissed-in-part*. In addition, to the extent that this Decision does not rely on an argument or evidence that Patent Owner contends is improper, Patent Owner’s Motion to Strike is moot as to that particular argument or evidence.

1. *Plurality of API Resources*

Patent Owner argues that Petitioner relies on Maes’s telephony-based servers to teach a plurality of API resources in the Petition, and then changes its theory to rely on Maes’s enumeration values, such as “MakeCall” and “TransferCall,” to teach a plurality of API resources in the Reply. PO Mot. Str. 2. Patent Owner’s argument is not persuasive. To show that Maes teaches a plurality of API resources, Petitioner argues in the Petition that “Maes teaches that TEL 20, includes various functionalities that allow an application to modify the state of a telephony session, such as setting up a call, transferring a call, and recording audio during a call. Pet. 16 (citing Ex. 1003, 34:20–35:28). Petitioner similarly argues in the Petition that “Maes discloses several resources accessible via an API,” namely, Maes teaches that “by sending a control message over the Internet to TEL20, application 14 can access resources that initiate, terminate, or transfer a call, such as

¹⁰ We authorized Patent Owner to file a motion to strike and Petitioner to file an opposition. Paper 33, 3.

‘MakeCall,’ ‘DropCall,’ ‘TransferCall,’ etc.” Pet. 20–21 (citing Ex. 1003, 16:4–8, 34:20–35:28). Because Petitioner relies on Maes’s enumeration values, such as “MakeCall” and “TransferCall,” to teach a plurality of API resources in the Petition, the Reply does not present a new theory of unpatentability.

2. *Responding to the API Request*

Patent Owner argues that “Petitioner did not rely on Ransom at all in attempting to make its prima facie case for the ‘responding’ limitation in the Petition,” and did not rely on Ransom’s Figure 20 “anywhere in the Petition.” PO Mot. Str. 2. Patent Owner’s argument is not persuasive. The Decision on Institution explained that for the “receiving” limitation of claim 1 (which precedes the “responding” limitation), Petitioner relies on Ransom to teach a REST API request that specifies the URI of an API resource. Dec. on Inst. 6–7 (citing Pet. 26–27). The Decision on Institution also explained that because the “responding” limitation refers back to the REST API request in the “receiving” limitation, Petitioner’s arguments and evidence for those two limitations should be read together as a whole. Dec. on Inst. 7. Thus, Patent Owner had notice that Petitioner’s reliance on Ransom for the REST API request in the “receiving” limitation also applies to the “responding” limitation. Further, this Decision does not rely on Ransom’s Figure 20.

3. *Informational API Resource*

Patent Owner argues that Petitioner relies on Maes’s collected digits to teach an informational API resource for claim 1 in the Petition, and then changes its theory to rely on Maes’s collecting-digits functionality to teach an informational API resource for claim 1 in the Reply. PO Mot. Str. 3.

Patent Owner's argument is not persuasive. To show that Maes teaches an informational API resource for claim 1, Petitioner argues in the Petition that "Maes discloses an application sending TEL 20 a SOAP message instructing *the collection of DTMF digits from a caller*" and that "Maes discloses that *media created in response to the application's instruction*, namely the collected digits, i.e. an informational API resource, are then sent from TEL 20 via the Internet to application 14." Pet. 20 (emphasis added). Similarly, to show that Maes teaches an informational API resource for claim 16, Petitioner argues in the Petition that "Maes discloses TEL 20 receiving an API request from application 14 to play a message and record a caller's response and/or *to collect DTMF digits from a caller*." *Id.* at 34 (emphasis added). In other words, Petitioner relies on Maes's functionality of collecting digits, not just the collected digits themselves, in the Petition. Thus, the Reply does not present a new theory of unpatentability.

4. ETSI 391-4 Grounds

Patent Owner presents several arguments regarding the asserted grounds of unpatentability that include ETSI 391-4. PO Mot. Str. 3-4. As discussed above, Petitioner has not shown by a preponderance of the evidence that any of the challenged claims are unpatentable based on the asserted grounds of unpatentability that include ETSI 391-4. *See supra* Sections II.E, II.F. Thus, because this Decision does not consider Petitioner's allegedly improper arguments in the Reply, it is unnecessary to strike those portions of the Reply from the record. Therefore, Patent Owner's Motion to Strike is *dismissed as moot* with respect to the asserted grounds of unpatentability that include ETSI 391-4.

5. *Exhibit 1019*

Patent Owner argues that “[w]ith its reply Petitioner for the first time submitted expert opinion applying a construction of ‘REST API’ that it could have and should have addressed in the Petition.” PO Mot. Str. 4. Patent Owner’s argument is not persuasive. Petitioner explains in the Petition how the prior art teaches a REST API. Pet. 21–22; Ex. 1004 ¶¶ 161–163, 184–185; Ex. 1009 ¶ 62. Patent Owner responds by proposing a specific construction of the term “REST API” in the Response (PO Resp. 10–11, 17–18), and Petitioner relies on Dr. Neilson’s Supplemental Declaration in the Reply to show that the prior art teaches a REST API even under Patent Owner’s proposed construction (Pet. Reply 9). Thus, Petitioner’s reliance on Dr. Neilson’s Supplemental Declaration is a proper response to an argument raised by Patent Owner in the Response, not a new theory of unpatentability. *See* 37 C.F.R. § 42.23(b); *see Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1078–80 (Fed. Cir. 2015).

H. *Petitioner’s Motion to Exclude*

Petitioner filed a Motion to Exclude (Paper 37, “Pet. Mot. Excl.”), to which Patent Owner filed an Opposition (Paper 43, “PO Opp. Excl.”), and Petitioner filed a Reply (Paper 44, “Pet. Reply Excl.”). Petitioner argues that paragraphs 144–149 of Exhibit 2010, which is Dr. Negus’s Declaration, should be excluded under Fed. R. Evid. 702, 801, 802. Pet. Mot. Excl. 3–4. Specifically, Petitioner argues that paragraphs 144–149 of Dr. Negus’s Declaration “simply repeat[] back hearsay statements of Mr. John Wolthuis – Patent Owner’s co-founded and named co-inventor of the instant ’376 Patent” to show “that Patent Owner’s Programmable Voice and

Programmable Messaging products practice the challenged claims of the '376 Patent.” *Id.* at 2.

Patent Owner relies on paragraphs 144–149 of Dr. Negus’s Declaration to support its arguments regarding the objective indicia of non-obviousness. PO Resp. 59–61. As discussed above, when considering all the evidence of obviousness and non-obviousness together, Petitioner has shown by a preponderance of the evidence that the challenged claims are unpatentable. *See supra* Sections II.C.10, II.D.4. Thus, because the admission of paragraphs 144–149 of Exhibit 2010 does not prejudice Petitioner, it is unnecessary to exclude those portions of Exhibit 2010. Therefore, Petitioner’s Motion to Exclude is *dismissed as moot*.

I. *Patent Owner’s Motion to Exclude*

Patent Owner filed a Motion to Exclude (Paper 38, “PO Mot. Excl.”), to which Petitioner filed an Opposition (Paper 42, “Pet. Opp. Excl.”), and Patent Owner filed a Reply (Paper 45, “PO Reply Excl.”). We have considered the parties’ arguments, and, for the reasons discussed below, Patent Owner’s Motion to Exclude is *denied-in-part* and *dismissed-in-part*.

1. *Exhibits 1017 and 1018*

Exhibits 1017 and 1018 are emails between Petitioner’s and Patent Owner’s employees. Patent Owner argues that Exhibits 1017 and 1018 should be excluded under Fed. R. Evid. 801, 802. PO Mot. Excl. 2–3. This Decision does not rely on Exhibit 1017 or 1018. Therefore, Patent Owner’s Motion to Exclude is *dismissed as moot* with respect to Exhibits 1017 and 1018.

2. *Exhibit 1019*

Exhibit 1019 is Dr. Neilson's Supplemental Declaration. Patent Owner argues that Exhibit 1019 should be excluded under Fed. R. Evid. 401, 402, 403. PO Mot. Excl. 3. Specifically, Patent Owner contends that Dr. Neilson's Supplemental Declaration "for the first time applies a construction of 'REST API' that it could have and should have addressed in the Petition." *Id.* Patent Owner's argument is not persuasive. Petitioner explains in the Petition how the prior art teaches a REST API. Pet. 21–22; Ex. 1004 ¶¶ 161–163, 184–185; Ex. 1009 ¶ 62. Patent Owner responds by proposing a specific construction of the term "REST API" in the Response (PO Resp. 10–11, 17–18), and Petitioner relies on Dr. Neilson's Supplemental Declaration to show that the prior art teaches a REST API even under Patent Owner's proposed construction (Pet. Reply 9). Thus, Petitioner's reliance on Dr. Neilson's Supplemental Declaration is a proper response to an argument raised by Patent Owner in the Response, not a new theory of unpatentability. *See* 37 C.F.R. § 42.23(b); *see Belden*, 805 F.3d at 1078–80. Therefore, Patent Owner's Motion to Exclude is *denied* with respect to Exhibit 1019.

3. *Exhibit 1020*

Patent Owner argues that Exhibit 1020 should be excluded (PO Mot. Excl. 1), but does not provide any specific reason why Exhibit 1020 should be excluded (*see id.* at 1–3). Therefore, Patent Owner's Motion to Exclude is *denied* with respect to Exhibit 1020.

4. *Petitioner's Reply*

Patent Owner argues that the portions of Petitioner's Reply that rely on an incomplete excerpt of Exhibit 2004 should be excluded under Fed. R.

Evid. 106. PO Mot. Excl. 3. Fed. R. Evid. 106 provides that “[i]f a party introduces all or part of a writing or recorded statement, an adverse party may require the introduction, at the time, of any other part—or any other writing or recorded statement—that in fairness ought to be considered at the same time.” Here, Exhibit 2004 is the entire transcript of a hearing in a related case, and Patent Owner does not seek to introduce any other statement that it believes should be considered at the same time. Thus, Petitioner’s reliance on a portion of that transcript in the Reply does not warrant exclusion of the Reply or Exhibit 2004. Therefore, Patent Owner’s Motion to Exclude is *denied* with respect to Petitioner’s Reply and Exhibit 2004.

J. *Patent Owner’s Motion to Seal*

Patent Owner filed an unopposed Motion to Seal. Paper 27 (“Mot. Seal”). Patent Owner seeks to seal Exhibits 2025–2027 in their entirety, portions of Exhibits 2047–2054 and 2063–2066, and portions of Patent Owner’s Response. Mot. Seal 1. For the reasons discussed below, the Motion to Seal is *granted*.

Patent Owner states that Exhibits 2025–2027 are internal emails among Petitioner’s employees regarding product development, which Petitioner asserts contain confidential information that would damage Petitioner’s business if made public. Mot. Seal 2–3. Patent Owner states that Exhibits 2047–2054 and 2063–2066 are reports from Patent Owner’s internal database showing the status of various accounts opened by Petitioner. Mot. Seal 3. Pursuant to paragraph 5(A)(ii) of the Protective Order entered June 21, 2018 (Paper 25), Patent Owner submitted both confidential and public versions of Exhibits 2047–2054 and 2063–2066.

Mot. Seal 3. In the public versions, Patent Owner redacted certain personal identification information, such as email addresses, account numbers, and names, which is necessary to allow submission of relevant evidence in this proceeding while protecting personal identification information. *Id.* at 3–4. Patent Owner states that the Response includes confidential information from the foregoing exhibits. *Id.* at 4. Pursuant to paragraph 5(A)(ii) of the Protective Order, Patent Owner submitted both confidential and public versions of the Response. *Id.* at 4.

There is a strong public policy that favors making information filed in an *inter partes* review open to the public. *Garmin Int’l, Inc. v. Cuozzo Speed Techs. LLC*, Case IPR2012-00001, slip op. 1–2 (PTAB Mar. 14, 2013) (Paper 34). The standard for granting a motion to seal is good cause. 37 C.F.R. § 42.54. That standard includes showing that the information addressed in the motion to seal is truly confidential, and that such confidentiality outweighs the strong public interest in having the record open to the public. *See Garmin*, IPR2012-00001, Paper 34, 2–3. Based on the Motion to Seal and the documents sought to be sealed, good cause exists to grant the Motion to Seal.

This Decision does not discuss or otherwise reveal any confidential information. Nonetheless, confidential information that is subject to a protective order ordinarily becomes public 45 days after final judgment in a trial, unless a motion to expunge is granted. 37 C.F.R. § 42.56; Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,761 (Aug. 14, 2012). We recognize, though, that a party who is dissatisfied with this Decision may appeal pursuant to 35 U.S.C. § 141(c). Thus, confidential information in this case will remain sealed until the time period for filing a notice of

appeal has expired, or if an appeal is taken, until the appeal has concluded. A motion to preserve the record, therefore, is not necessary at this time. Within 45 days of the conclusion of all appeals, or, if no notice of appeal is filed, within 45 days of the expiration of the period to file a notice of appeal, the parties may file a motion to expunge any sealed documents. If the parties do not file such a motion, the sealed documents will be unsealed.

III. CONCLUSION

Petitioner has shown by a preponderance of the evidence that claims 1–3, 14, 16, and 19 would have been obvious over Maes and Ransom; and that claims 5 and 17 would have been obvious over Maes, Ransom, and Jiang. Petitioner, however, has not shown by a preponderance of the evidence that claims 1–3, 5, 14, and 16 would have been obvious over ETSI 391-4 and Ransom; that claim 17 would have been obvious over ETSI 391-4, Ransom, and ETSI 391-7; or that claim 19 would have been obvious over ETSI 391-4, Ransom, and ETSI 391-22.

IV. ORDER

It is hereby

ORDERED that claims 1–3, 5, 14, 16, 17, and 19 of the '376 patent are shown unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Strike is *denied-in-part* and *dismissed-in-part*;

FURTHER ORDERED that Petitioner's Motion to Exclude is *dismissed as moot*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied-in-part* and *dismissed-in-part*;

FURTHER ORDERED that Patent Owner's Motion to Seal Paper 28 and Exhibits 2025–2027, 2047–2054, and 2063–2066 is *granted*; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2017-01977
Patent 8,755,376 B2

PETITIONER:

Jesse J. Camacho
Elena K. McFarland
Christine Guastello
Mary J. Peal
SHOOK, HARDY & BACON L.L.P.
jcamacho@shb.com
emcfarland@shb.com
cguastello@shb.com
mpeal@shb.com

PATENT OWNER:

Wayne Stacy
Sarah Guske
Michelle Jacobson Eber
Jay B. Schiller
BAKER BOTTS L.L.P.
wayne.stacy@bakerbotts.com
sarah.guske@bakerbotts.com
michelle.eber@bakerbotts.com
jay.schiller@bakerbotts.com