

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NEXT CALLER INC.,
Petitioner,

v.

TRUSTID, INC.,
Patent Owner.

IPR2019-00039
Patent 9,001,985 B2

Before JEAN R. HOMERE, BARBARA A. PARVIS, and
STACEY G. WHITE, *Administrative Patent Judges*.

PARVIS, Administrative Patent Judge.

JUDGMENT
Final Written Decision on Remand
Determining No Challenged Claims Unpatentable
35 U.S.C. §§ 144, 318(a)

I. INTRODUCTION

This Decision addresses the opinion of the United States Court of Appeals for the Federal Circuit in *TRUSTID, Inc. v. Next Caller Inc.*, 2021 WL 4427918 (Fed. Circ. Sept. 27, 2021) (hereinafter *TRUSTID*), vacating our Final Written Decision and remanding for further proceedings. Having analyzed the entirety of the record anew in light of the court’s directives in *TRUSTID*, we conclude that Next Caller Inc., (“Petitioner”) has not shown by a preponderance of the evidence that claims 8–11, 19, and 20 of U.S. Patent No. 9,001,985 B2 (Ex. 1001, “the ’985 Patent”) owned by TRUSTID, Inc. (“Patent Owner”) are unpatentable.

A. *Procedural History*

Petitioner filed a Petition pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1–22 of the ’985 Patent. Paper 1 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 10. Upon consideration of the parties’ contentions and supporting evidence, we instituted an *inter partes* review pursuant to 35 U.S.C. § 314, as to the challenged claims of the ’985 Patent (Paper 11, “Decision to Institute” or “Inst. Dec.”) as summarized in Table 1 below:

Claims Challenged	35 U.S.C.	Reference(s)/Basis
1–7, 12–14, 16–18, 21, 22	§ 103(a)	Martin ¹

¹ U.S. Patent Publication No. 2007/0201625 A1, filed February 28, 2006, published August 30, 2007 (Ex. 1004, “Martin”).

Claims Challenged	35 U.S.C.	Reference(s)/Basis
1–7, 12–18, 21, 22	§ 103(a)	Martin, Abramson ²
8–11, 19, 20	§ 103(a)	Martin, Kealy ³
8–11, 19, 20	§ 103(a)	Martin, Abramson, Kealy

Table 1 of this Decision summarizes the grounds in the Petition. Pet. 5.

After institution, Patent Owner filed a Patent Owner Response (Paper 17, “Conf. PO Resp.”); Petitioner filed a Reply (Paper 30, “Conf. Pet. Reply”); and Patent Owner filed a Sur-Reply (Paper 45, “Conf. PO Sur-Reply”).⁴ Additionally, Petitioner submitted as supporting evidence the first Declaration of Mr. James T. Geier (Ex. 1003) and the second Declaration of Mr. James T. Geier (Ex. 1008 (confidential); Ex. 1023 (public)). Patent Owner submitted as supporting evidence the Declaration of Dr. Leonard J. Forys (Ex. 2001).⁵

² U.S. Patent Publication No. 2007/0081648 A1, filed September 28, 2005, published April 12, 2007 (Ex. 1005, “Abramson”).

³ U.S. Patent No. 7,912,192 B2, filed February 15, 2005, issued March 22, 2011 (Ex. 1006, “Kealy”).

⁴ The parties also filed redacted versions Patent Owner Response (Paper 19, “PO Resp.”); Petitioner filed a Reply (Paper 32, “Pet. Reply”); and Patent Owner filed a Sur-Reply (Paper 46, “PO Sur-Reply”). Herein we refer to the parties’ redacted briefs unless otherwise noted.

⁵ Patent Owner uses the same exhibit numbers for public, redacted versions and confidential versions of certain exhibits. Patent Owner was authorized to re-file redacted versions using different exhibit numbers, but Patent Owner declined to refile. Paper 55, 8. We refer to the redacted versions herein unless otherwise noted.

Transcripts of the hearing held on November 20, 2019 have been entered into the record as Paper 65 (confidential) and Paper 66 (public) (“Tr.”).⁶ Following the hearing, the parties were authorized to file additional briefing regarding claim term interpretation. Papers 63, 64.

On February 24, 2020, we issued a Final Written Decision. Paper 67.⁷ We held that Petitioner had demonstrated by a preponderance of evidence that challenged claims 1–7, 12–14, 16–18, and 22 of the ’985 Patent are unpatentable. Final Dec. 3. We further held that Petitioner had not demonstrated by a preponderance of evidence that challenged claims 8–11, 15, and 19–21 are unpatentable. *Id.* at 90. With respect to claims 8–11, 19, and 20, we stated that “Petitioner does not explain how Kealy’s complaints are ‘personal risk factors.’” *Id.* at 87. We also stated that Petitioner “has not shown why or how a person having ordinary skill in the art would have modified the Martin and Abramson combination with Kealy to perform the further step of ‘adjusting . . . the source origin confidence metric based on personal risk factors.’” *Id.* at 88.

On March 18, 2020, Petitioner filed a Request for Rehearing (Paper 70), which we denied on April 27, 2020. Paper 74.⁸ On March 25, 2020,

⁶ All citations herein are to the public transcript.

⁷ A public version of the Final Written Decision was entered into the record as Paper 77 (“First Final Written Decision” and “Final Dec.”). Herein, we refer to the public version of the Final Written Decision unless otherwise noted.

⁸ Unless otherwise noted, herein we refer to the public version, which is Paper 85 (“Decision Denying Petitioner’s Request for Rehearing” or “Dec. Reh’g Req.”).

Patent Owner filed a Request for Rehearing (Paper 71), which we denied on April 27, 2020 (Paper 72).⁹

The Federal Circuit issued an opinion in *TRUSTID*, affirming our determination with respect to claims 1–7, 12–14, 16–18, and 22, vacating our determination with respect to claims 8–11, 19, and 20, and remanding for further proceedings. *TRUSTID*, 2021 WL 4427918, at *9; *see also* Papers 91, 98, 99.¹⁰ The Federal Circuit stated the following:

The petition presented four grounds of invalidity, three of which are at issue in this appeal. Ground 2 challenged claims 1–7, 12–18, 21, and 22 as obvious over the combination of U.S. Patent Publication No. 2007/0201625 (“Martin”) in view of U.S. Patent Publication No. 2007/0081648 (“Abramson”). Grounds 3 and 4 challenged claims 8–11, 19, and 20 as obvious over a combination of Martin, and then Martin with Abramson, both in view of U.S. Patent No. 7,912,192 (“Kealy”). *TRUSTID*, 2021 WL 4427918, at *1.

The Federal Circuit discussed the examination of the application that ultimately issued as the ’985 patent and determined “there is no legal basis for the proposition the Board must defer to the examiner’s previous findings in deciding the merits of an [*inter partes* review].” *Id.* 2021 WL 4427918, at *7–8. The Federal Circuit, however, stated that “the Board’s analysis with respect to Kealy’s teachings and motivation to combine were insufficient.”

⁹ Both Decisions were entered into the public record. Papers 83, 84, 85.

¹⁰ The Federal Circuit stated that “[t]he Board held claims 15 and 21 had not been shown to be unpatentable” and “[t]hose claims are not at issue on appeal.” *Id.* at n. 1. Thus, our prior determination upholding the patentability of claims 15 and 21 is not implicated in this Final Written Decision on Remand.

Id. 2021 WL 4427918, at *8. The court remanded “for further proceedings consistent with this opinion.” *Id.* at *9.

The Federal Circuit issued its original mandate on November 3, 2021. Paper 90. However, on January 13, 2022, the Federal Circuit recalled its mandate and issued an errata to delete claim 21 from the statement “we affirm the Board’s decision finding claims 1–7, 12–14, 16–18, 21, and 22 of the ’985 patent unpatentable.” *TRUSTID*, 2021 WL 4427918, at *1; Papers 97, 98. The Federal Circuit stated that “[t]he Board held claims 15 and 21 had not been shown to be unpatentable” and “[t]hose claims are not at issue on appeal.” *Id.* at n. 1. The decision now states that the Federal Circuit affirmed the Board’s decision finding claims 1–7, 12–14, 16–18, and 22 of the ’985 patent unpatentable. *Id.* The Federal Circuit issued an updated mandate after its errata on January 18, 2022. Paper 99. The issues before us in this remand pertain to challenged claims 8–11, 19, and 20.

On November 16, 2021, in accordance with the Board’s Standard Operating Procedure 9, a call was held with Judges Homere, Parvis, and White and the parties to discuss the remand proceedings. Paper 93, 3. During the call, Petitioner requested additional briefing. *Id.* at 3–4. On November 18, 2021, we issued an Order allowing briefing by Petitioner limited to identifying arguments previously made in the Petition and pointing to where in the Petition those arguments were made. *Id.* at 4–5. Patent Owner was allowed responsive briefing. *Id.* at 5–6. The parties filed their post-remand submissions. Paper 94 (“Pet. Post Remand Br.”); Paper 95 (“PO Post Remand Br.”).

The Board has jurisdiction under 35 U.S.C. §§ 6 and 144. This Decision on Remand is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, we determine that Petitioner has not shown by a preponderance of the evidence that claims 8–11, 19, and 20 of the '985 patent are unpatentable.

B. Real Parties-in-Interest

Petitioner names itself and Pindrop Security, Inc. as the real parties-in-interest. Pet. 4; Paper 87. Patent Owner names itself and Neustar, Inc. as the real parties-in-interest. Paper 16, 1.

C. Related Matter

As required by 37 C.F.R. § 42.8(b)(2), each party identifies a judicial matter that would affect, or be affected by, a decision in this proceeding. In particular, the parties inform us that the '985 Patent is asserted in *TRUSTID, Inc. v. Next Caller Inc.*, Case No. 1:18-cv-00172 (D. Del.) filed January 30, 2018 (herein the “Parallel District Court Proceeding”). Pet. 4; Paper 3, 1. Petitioner informs us that a jury reached a verdict in the Parallel District Court Proceeding and that verdict is on appeal. Paper 94, 1.

D. The '985 Patent

The '985 Patent is directed to establishing the credibility of incoming calls placed in telecommunication and information service networks. Ex. 1001, 1:23–28. Figure 1 of the '985 Patent is reproduced below.

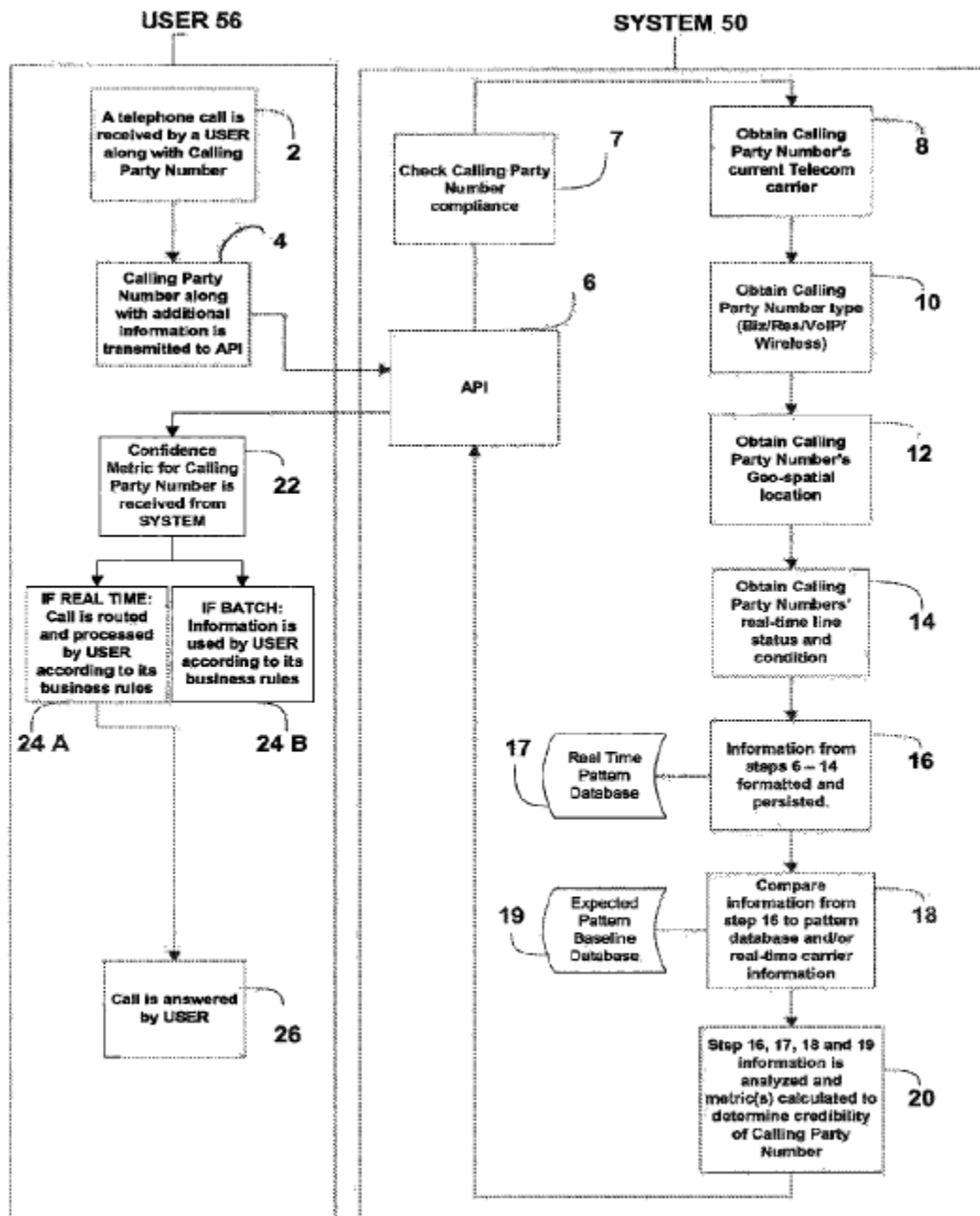


FIG. 1

Figure 1 of the '985 Patent, above, illustrates a flow diagram for determining trustworthiness and credibility of calling number information relating to calls placed in a telecommunication network. *Id.* at 5:63–67.

The process begins with an event in which an incoming telephone call is received. *Id.* at 6:50–52. Automatic Number Identification (ANI) information, which typically is ten digits long in North America, is delivered. *Id.* at 6:52–54. The ANI is used to perform checks represented, for example, by calling party compliance block 7, representing a validity check, carrier discovery 8 block representing a determination of the carrier that owns the ANI, and geo-spatial location block 12 representing a determination of the geographic information about the ANI. *Id.* at 7:26–8:16. Network condition, line-status, call progress information, and call progress messages and their associated timing information are collected in Network Condition 14. *Id.* at 8:49–51. Examples of network conditions of the telephone number include “busy, ring then answer, call forward then answer, and ringing no answer.” *Id.* at 8:51–54.

Storage 16 represents sorting and formatting data obtained, for example, in carrier discovery 8, geo-spatial location block 12, and network condition 14. *Id.* at 9:40–49. Real-time patterns database 17 stores data from storage 16. *Id.* at 9:51–53. Compare 18 compares data in real-time patterns database 17 against expected pattern results in expected patterns database 19. *Id.* at 10:7–10.

In determine block 20, the results from compare 18 are analyzed for normalcy deviation and statistical match to patterns and their timing or duration between messages or conditions. *Id.* at 10:63–65. Real time patterns and other attributes are used to generate a score or metric of the validity of an ANI or, alternatively, a single determination of “valid” or “invalid.” *Id.* at 10:66–11:5.

E. Illustrative Claims

Claims 8–11, 19, and 20 are pending in the instant proceeding. *TRUSTID*, 2021 WL 4427918, at *9. Claims 8–11 depend, directly or indirectly, on claim 1. Claims 19 and 20 depend from claim 13. Independent claim 1 and dependent claim 8, reproduced below, are illustrative of the claimed subject matter:

1. A method of determining a source origin confidence metric of a calling party number or billing number associated with an incoming call to a called party telephonic device from a calling party telephonic device, comprising:

receiving by an electronic system associated with the called party telephonic device the calling party number or billing number, wherein the electronic system receives the calling party number or billing number from the called party telephonic device;

after receiving the calling party number or billing number and before the incoming call is answered, gathering by the electronic system associated with the called party telephonic device operational status information associated with the calling party number or billing number, and

determining by the electronic system associated with the called party telephonic device the source origin confidence metric for the calling party number or billing number.

Ex. 1001, 15:2–19.

8. The method of claim 1, further comprising:

adjusting by the system associated with the called party telephone device the source origin confidence metric based on personal risk factors of an entity associated with the calling party number or billing number.

Id. at 15:46–50.

II. DISCUSSION

A. *Principles of Law*

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) as “requiring [*inter partes* review] petitions to identify ‘with particularity . . . the evidence that supports the grounds for the challenge to each claim’”); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon). That burden never shifts to the patentee. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Furthermore, Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

A patent claim is unpatentable 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 said subject matter pertains. 35 U.S.C. § 103(a). 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 skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). When evaluating a combination of teachings,

we also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). We analyze the pending ground in accordance with the above-stated principles.

B. Level of Ordinary Skill

Petitioner contends, relying on the testimony of Mr. Geier, that a person having ordinary skill in the art would have had a bachelor’s degree in electrical engineering, computer science, or a related field, plus 1–2 years of experience with telecommunications. Pet. 11 (citing Ex. 1003 ¶ 16). Mr. Geier testifies as follows:

Based on these factors, on or before May 19, 2009, a [person of ordinary skill in the art] POSITA relating to the technology of the ’985 Patent would have had a minimum of a bachelor’s degree in electrical engineering, computer science, or a related field, plus 1–2 years of experience with telecommunications. In lieu of a degree, a POSITA could be one whose equivalent accumulated knowledge and experience in the field of telecommunications makes him or her a POSITA. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education. A POSITA is presumed to have knowledge of all relevant prior art, and therefore would have been familiar with each of the references cited in this declaration and the full range of teachings they contain.

Ex. 1003 ¶ 16.

Dr. Forys testifies “a POSITA would have a bachelor’s degree in electrical engineering, computer engineering, computer science, or a related engineering field and at least two years of experience with telecommunications signaling and protocols used for call processing.”

Ex. 2001 ¶ 36. Although Patent Owner contends that the '985 Patent is directed to an “anti-spoofing solution” (PO Resp. 1), Dr. Forsys’s testimony does not indicate expressly that anti-spoofing work experience is required. Ex. 2001 ¶ 36.

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). We do not discern a significant difference in the parties’ standards. We note a slight difference is that Dr. Forsys’s testimony indicates expressly that the skilled artisan would have had experience with telecommunications signaling and protocols used for call processing. Ex. 2001 ¶ 36. Mr. Geier’s testimony considered as a whole, however, is substantively significantly the same, as he testifies that the skilled artisan would have had 1–2 years of experience with telecommunications and that such person would have known of state-of-the-art technologies such as those described as background of the '985 Patent including call routing and use of ANI and caller identification (ID). Ex. 1003 ¶¶ 16, 18–20.

On the record before us, we are persuaded and adopt Mr. Geier’s assessment of a person with ordinary skill in the art because it is consistent with the problems and solutions in the prior art of record. We further find that the prior art of record in the instant proceeding reflects the appropriate level of ordinary skill in the art. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art itself can reflect the appropriate level of skill

in the art). However, our conclusions and analysis herein do not turn on which definition is selected and would be the same under Patent Owner's level of the skilled artisan.

C. Claim Construction

In this *inter partes* review, we construe claim terms according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b) (2018).¹¹

In our First Final Written Decision, we made claim construction determinations regarding the terms “source origin confidence metric” and “operational status information.” Final Dec. 21–31. With respect to “source origin confidence metric,” Patent Owner asserted that “source origin confidence metric for the calling party number or billing number” represents “the credibility of the calling party number or the calling party billing number.” PO Resp. 13. We stated:

Further, although we are not bound by the district court's construction interpreting the claim terms at issue here, we have considered the District Court Claim Construction Order. *See Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326 (Fed. Cir. 2015) (“The fact that the board is not generally bound by a previous judicial interpretation of a disputed claim term does not mean, however, that it has no obligation to acknowledge that

¹¹ The claim construction standard to be employed in an *inter partes* review changed. *See* 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) (amending 37 C.F.R. § 42.100(b) for petitions filed on or after November 13, 2018). At the time of the filing of the Petition in this proceeding (October 5, 2018), however, the applicable claim construction standard was set forth in 37 C.F.R. § 42.100(b) (2018).

interpretation or to assess whether it is consistent with the broadest reasonable construction of the term.”). The District Court determined that “source origin confidence metric” means “a number in a range that *represents the credibility of the calling party number or the calling party billing number.*” Ex. 1015, 5 (emphasis added). We agree that Patent Owner’s proposed construction is consistent with the District Court’s determination and consistent with the intrinsic record.

Final Dec. 24.

We rejected Petitioner’s proposal that the term encompasses “a singular determination such as ‘valid’ or ‘invalid.’” *Id.* at 24–30. We noted that following our Decision to Institute, the District Court issued its Memorandum regarding claim construction. Ex. 1015. The District Court stated “[t]he PTAB, in its Institution Decision, concluded . . . that a ‘source origin confidence metric’ does not ‘encompass[] a binary (valid or invalid) determination.’ (D.I. 82-1 Ex. 2 at 11) The Court agrees with the PTAB’s conclusion.” *Id.* at 9 n. 6. We determined, in light of the ’985 Patent Specification, that the broadest reasonable interpretation of “metric” is “a measurement produced using statistical methods to indicate a probability, which does not encompass a binary (valid or invalid) determination.” Final Dec. 29.

Regarding “operational status information,” in its Patent Owner Response, Patent Owner asserted that examples of “operational status information” include “information that is gathered pre-answer” such as “line-status, call progress information, and call progress messages and their associated timing information,” “the current network condition of the telephone number,” and “the type of answer condition and line type.” PO Resp. 35–36 (citing Ex. 1001, 8:49–51, 8:53–54, 8:61–62). We considered

those examples in making our claim construction determination. Final Dec. 30–31.

Our claim construction determinations for the terms “source origin confidence metric” and “operational status information” are set forth in Table 2 below.

Claim Term	Claim Construction
“source origin confidence metric”	We determined that the broadest reasonable interpretation of “source origin confidence metric” is “a metric that represents the credibility of the calling party number or the calling party billing number.” Final Dec. 29. We also determined that the broadest reasonable interpretation of “metric” is “a measurement produced using statistical methods to indicate a probability, which does not encompass a binary (valid or invalid) determination.” <i>Id.</i> at 30.
“operational status information”	We determined that the broadest reasonable interpretation of “operational status information” is “information that is gathered pre-answer” such as “line-status, call progress information, and call progress messages and their associated timing information,” “the current network condition of the telephone number,” and “the type of answer condition and line type.” <i>Id.</i> at 30–31.

Table 2, above, sets forth determinations in the First Final Written Decision (Paper 67) regarding the terms “source origin confidence metric” and “operational status information.”

The Federal Circuit has not determined that any construction set forth in our First Final Written Decision is erroneous. *See generally TRUSTID*, 2021 WL 4427918. The Federal Circuit affirmed our determination with respect to claims 1–7, 12–14, 16–18, and 22, which includes claims, such as independent claims 1 and 13, reciting terms “source origin confidence metric” and “operational status information.” *TRUSTID*, 2021 WL 4427918, at *9; *see also* Papers 91, 98, 99. Although the Federal Circuit vacated “the Board’s non-obviousness determination as to claims 8–11, 19, and 20,” the remand is “for further proceedings consistent with this opinion” and the opinion does not discuss the claim construction determinations for “source origin confidence metric” and “operational status information.” *Id.*

Petitioner has not argued to the contrary. Indeed, in Petitioner’s Brief on Remand, Petitioner asserts “[t]here are only two questions to be decided: (1) whether Kealy’s complaints are ‘personal risk factors’; and (2) whether the Petition has ‘shown why or how a person having ordinary skill in the art would have modified the Martin and Abramson combination with Kealy to perform the further step of ‘adjusting . . . the source origin confidence metric based on personal risk factors’ recited in claims 8 and 19.’” Pet. Post Remand Br. 1 (citing Paper 67 at 87–88). Petitioner has not raised any issues regarding our broadest reasonable determinations for the terms “source origin confidence metric” and “operational status information” set forth in the First Final Written Decision during the call or in the post-remand briefing. *See generally* Pet. Post Remand Br.

For the reasons given, herein we maintain our claim constructions for the terms “source origin confidence metric” and “operational status information” set forth in the First Final Written Decision. Final Dec. 21–31.¹²

D. Overview of the Prior Art

In our discussion below, we provide a brief overview of the prior art asserted in the Petition.

1. Overview of Martin

Martin is directed to an alarm system central monitoring station that processes an incoming telephone call based on the call source identification information. Ex. 1004 ¶ 1. Figure 1 of Martin is reproduced below.

¹² Although not necessary in our view, for completeness, the analysis, reasoning, and determinations in the First Final Written Decision regarding claim construction (Final Dec. 21–31) are hereby incorporated into this Final Written Decision.

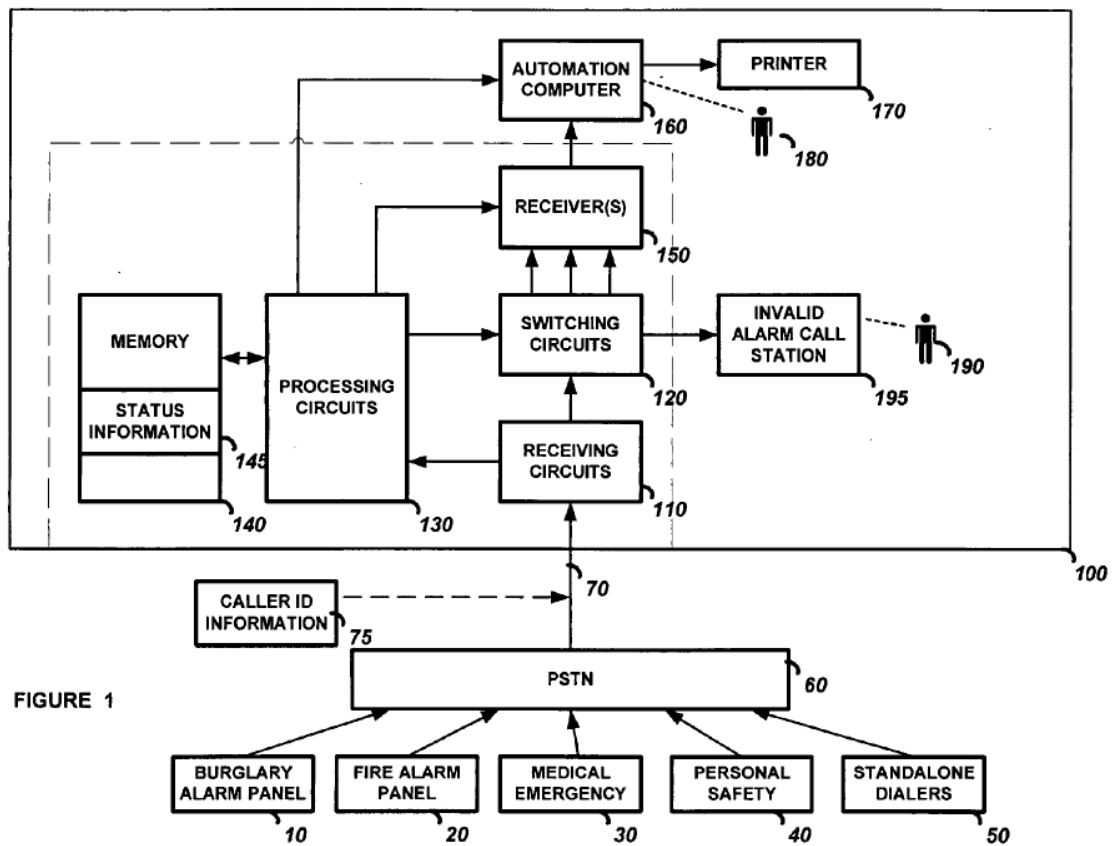


Figure 1 illustrates central monitoring station 100, which includes receiving circuits 110 that detect a call from one of alarm panels 10–50. *Id.* ¶ 18.

Processing circuits 130 use caller identifier (ID) information 75 to determine the status of an alarm system from status information 145 stored in memory 140. *Id.* ¶ 19. Figure 5 of Martin provides more detail regarding determining the status of an alarm and is reproduced below.

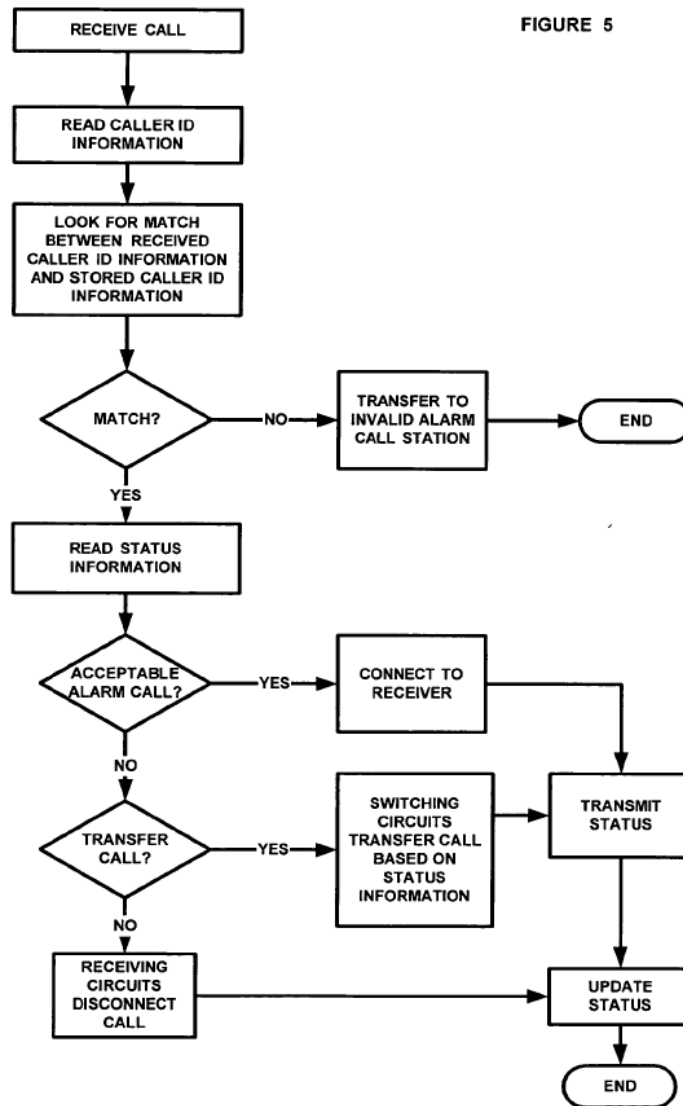


Figure 5 of Martin is a flowchart that illustrates processing by central monitoring system 100 when a telephone call is detected by receiving circuits 110. *Id.* ¶ 27.

Processing circuits 130 determine if caller ID information 75 received by receiving circuits 110 matches information 200 stored in memory. *Id.* If no match is found, the call is connected to invalid alarm call station 195. *Id.* If a match is found, processing circuits 130 read status bits 210–330. *Id.* If

the call is a valid alarm call, it is connected to receiver 150 and status information 145 is transmitted. *Id.* Otherwise, the call is transferred to a business operator based on status information 145 or disconnected. *Id.* ¶¶ 9, 27.

2. Overview of Abramson

Abramson is directed to detecting spoofing of a telephone number. Ex. 1005 ¶ 1. Figure 5 of Abramson is reproduced below.

Figure 5

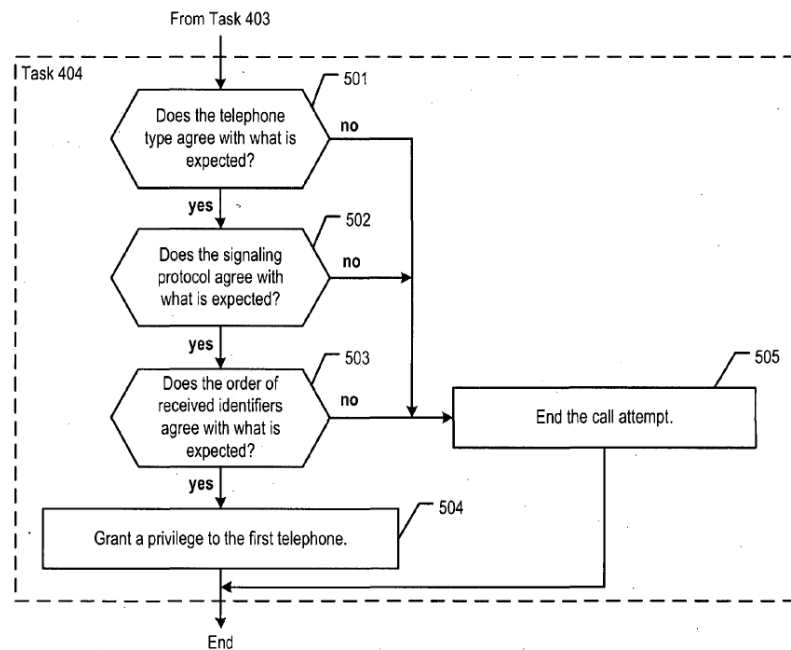


Figure 5 of Abramson, above, illustrates, a flowchart of tasks relating to granting a privilege to a call from a telephone based on criteria used to verify the telephone. *Id.* ¶¶ 64–65.

At task 501, exchange 205 determines whether a received telephone type agrees with what is expected based on information stored in memory 303 and, if so, execution proceeds to task 502. *Id.* ¶¶ 66–67. Otherwise, the

call attempt ends in task 505. *Id.* ¶ 67. Exemplary telephone types include “GSM Cellular” and “Landline.” *Id.*

At task 502, exchange 205 determines whether a received signaling protocol agrees with what is expected and, if so, execution proceeds to task 503; otherwise task execution proceeds to task 505. *Id.* ¶ 68. An exemplary signaling protocol is “ISDN.” *Id.* ¶ 69.

At task 503, exchange 205 determines whether the ordering of identifiers agrees with what is expected and, if so, execution proceeds to task 504; otherwise task execution proceeds to task 505. *Id.* ¶ 70. At task 504, exchange 205 grants one or more privileges to the telephone. *Id.* ¶ 72.

3. *Overview of Kealy*

Kealy is directed to managing telephone calls carried by Voice over Internet Protocol (VoIP) technology. Ex. 1006, 1:10–12. Figure 4 of Kealy is reproduced below.

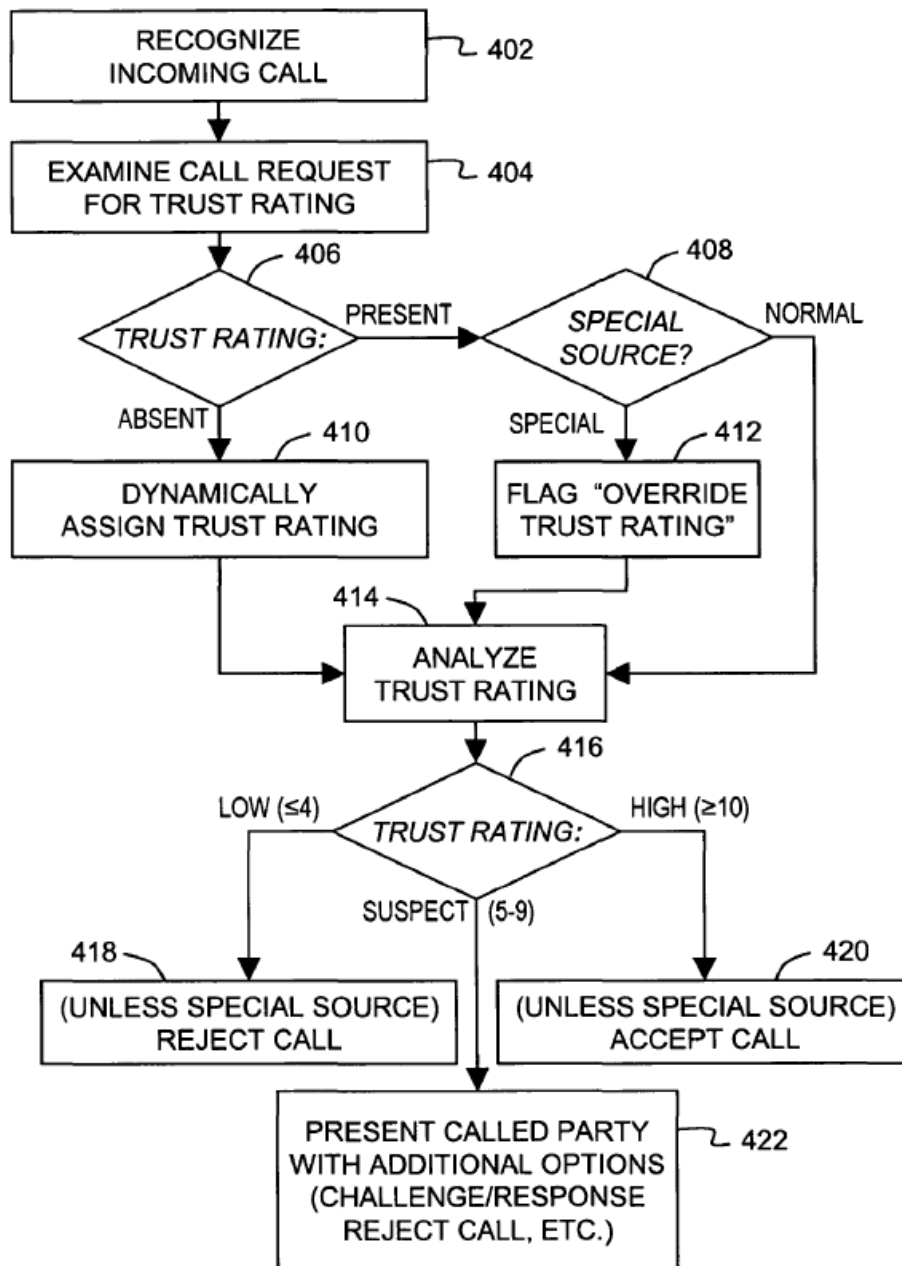


FIG. 4

Figure 4 of Kealy illustrates a flowchart for managing an incoming VoIP call. *Id.* at 7:51–52.

Blocks 402, 404, and 406 illustrate the following steps: recognizing the call, checking the call request for presence of a trust rating in a certificate associated with the incoming call, and determining whether a trust rating is present or absent. *Id.* at 7:53–54, 8:1–3, 8:15–17. Block 410 illustrates the step of assigning a trust rating, if absent, and then passing control to block 414. *Id.* at 8:18–19, 8:56–57.

Block 414 illustrates the step of analyzing the trust rating and block 416 illustrates deciding how to respond to an incoming call. *Id.* at Fig. 4. Kealy describes exemplary trust rules in a table set forth below.

Trust Rating	Category	Call Management Operation
1-4	Untrusted	(FIG. 4 block 418) Reject calls unless consumer has “opted-in” for such calls with the service provider when establishing service, or in block 332 (FIG. 3).
5, 6	Suspect	(FIG. 4 block 422) Present caller with “challenge/response” scenario, in which the caller is either requested to provide a spoken reason for the call, type his number or identity to allow the call recipient to decide whether or not to accept the call, etc.. Tell recipient the calling device’s trust rating.
7-9	Suspect	(FIG. 4 block 422) Ring as normal, but present subscriber with a “reject call” option like conventional GSM cell phones, but also showing the caller’s trust rating. If subscriber rejects call, turn caller away with a recorded message explaining that his call was rejected. Alternatively, send call to voicemail (FIG. 1 block 115) (automatically or manually) for subscriber to deal with at his leisure.
10-14	Trusted	(FIG. 4 block 420) Accept call.
15	Special trusted	(FIG. 4 block 420) Always accept call.

In Kealy’s table above, exemplary trust ratings are provided with associated call management operations. *Id.* at 9:38–64.

As reflected in blocks 416, 418, 420, and 422 and the table above, low trust ratings, e.g., trust ratings 1 through 4 are “Untrusted” reflecting that calls are blocked. *Id.* at 7:23–27, 9:38–64. Trust ratings 5 through 9 are “Suspect” and additional processing is performed, trust ratings 10 through 14 are “Trusted” and the call is accepted, and trust rating 15 is “Special Trusted” reflecting that the calls always are accepted. *Id.*

E. Obviousness Over Martin and Kealy

Petitioner contends each of claims 8–11, 19, and 20 of the '985 Patent is unpatentable, under 35 U.S.C. § 103(a), as obvious over Martin and Kealy. Pet. 5, 43–50, 58. Claims 8–11 depend, directly or indirectly, on claim 1. Claims 19 and 20 depend from claim 13.

Although Ground 1, i.e., Petitioner's challenge of independent claims 1 and 13 of the '985 Patent, under 35 U.S.C. § 103(a), as obvious over Martin alone was not at issue in the appeal, the Federal Circuit indicated that Ground 3, which is obviousness of claims 8–11, 19, and 20 over Martin in view of Kealy was at issue in the appeal. *Id.* In particular, the Federal Circuit stated the following:

The petition presented four grounds of invalidity, three of which are at issue in this appeal. Ground 2 challenged claims 1–7, 12–18, 21, and 22 as obvious over the combination of U.S. Patent Publication No. 2007/0201625 ("Martin") in view of U.S. Patent Publication No. 2007/0081648 ("Abramson"). Grounds 3 and 4 challenged claims 8–11, 19, and 20 as obvious over a combination of Martin, and then Martin with Abramson, both in view of U.S. Patent No. 7,912,192 ("Kealy").

Id.

In its contentions for claims 8–11, 19, and 20, Petitioner relies on the same teachings in Martin that were relied upon for claim 1. *Compare* Pet. 44–45 (citing Ex. 1004 ¶¶ 6, 27; Ex. 1005 ¶¶ 23, 66–69, 71), *with* Pet. 23–28 (citing, *e.g.*, Ex. 1004 ¶¶ 6, 27; Ex. 1005 ¶¶ 23, 66–69, 71). Although Petitioner asserts that Kealy teaches "a metric-related threshold" (Pet. 44 (citing Ex. 1006, 15:25)), Petitioner's assertion pertains only to modifying Martin and Abramson to use Kealy's trust rating system. In its contentions

for obviousness over Martin and Kealy, Petitioner does not assert that Kealy teaches any recitations in claims 1 and 13 including “source origin confidence metric” and, instead, relies entirely on Martin and its mapping for claims 1 and 13. Pet. 43–50, 58. In the First Final Written Decision, we determined that Petitioner had not shown by a preponderance of the evidence that independent claims 1 and 13 of the ’985 Patent are unpatentable, under 35 U.S.C. § 103(a), as obvious over Martin alone. Final Dec. 36. Petitioner’s contentions for claims 8–11, 19, and 20 based on the combination of Martin and Kealy do not remedy the deficiency of Petitioner’s obviousness challenge over Martin alone with respect to independent claims 1 and 13.

In summary, Petitioner has not demonstrated by a preponderance of the evidence that claims 8–11, 19, and 20 of the ’985 Patent are unpatentable, under 35 U.S.C. § 103(a), as obvious over Martin and Kealy because Petitioner’s contentions are deficient for the same reasons given for independent claims 1 and 13 in the First Final Written Decision with regard to the obviousness contentions based on Martin alone. Final Dec. 21–36, 64–66, 86, 88, 90.

F. Obviousness Over Martin, Abramson, and Kealy

Petitioner also contends each of claims 8–11, 19, and 20 of the ’985 Patent is unpatentable, under 35 U.S.C. § 103(a), as obvious over Martin, Kealy, and Abramson. Pet. 5, 43–50, 58. Unlike the obviousness challenge based on Martin alone, we determined that Petitioner had demonstrated by a preponderance of the evidence that claims 1 and 13

would have been obvious over the combination of Martin and Abramson. Final Dec. 63–66. The Federal Circuit affirmed our determination with respect to independent claims 1 and 13. *TRUSTID*, 2021 WL 4427918, at *9.

In our First Final Written Decision with respect to claims 8–11, 19, and 20, we stated that “Petitioner does not explain how Kealy’s complaints are ‘personal risk factors.’” Final Dec. 87. We also stated that Petitioner “has not shown why or how a person having ordinary skill in the art would have modified the Martin and Abramson combination with Kealy to perform the further step of ‘adjusting . . . the source origin confidence metric based on personal risk factors.’” *Id.* at 87-88. The Federal Circuit stated that “the Board’s analysis with respect to Kealy’s teachings and motivation to combine were insufficient.” *TRUSTID*, 2021 WL 4427918, at *8. We address the insufficiencies below.

1. “personal risk factors”

Each of the pending dependent claims recites “personal risk factors.” In particular, claim 8 recites “adjusting by the system associated with the called party telephonic device the source origin confidence metric based on *personal risk factors* of an entity associated with the calling party number or billing number.” Ex. 1001, 15:47–50 (emphasis added). Claim 19 similarly recites “adjusting . . . the source origin confidence metric based on *personal risk factors* of an entity associated with the calling party number or billing number.” *Id.* at 16:45–48 (emphasis added). Claim 9 depends directly from claim 8 and claim 20 depends directly from claim 13. Each of claim 9 and claim 20 recites “wherein the *personal risk factors* include one or more of

fraud score, risk score, credit score, marketing score, affinity score, expansion score, or warning indicators for bankruptcy, or whether a person associated with the calling party number or billing number is deceased.” *Id.* at 15:51–55, 16:49–54 (emphasis added).

a) *The Petition*¹³

For adjusting the source origin confidence metric based on *personal risk factors* recited in claim 8, upon review of Petitioner’s contentions in the Petition and the prosecution history, Petitioner appears to have heavily relied on a portion of an Office Action issued January 11, 2013. *Compare* Ex. 1002, 74, *with* Pet. 44. One difference is that Petitioner interjects the term “personal” into the claim language mapped to Kealy, which was not in the findings of the Examiner. *Id.* A side-by-side comparison of the Office Action and the Petitioner’s mapping is set forth below in Table 3.

January 11, 2013 Office Action	The Petition
“Kealy . . . teaches trust ratings embedded in certificates of calling device[s], and a method of managing trust ratings based on fraud and risk factors such as	“Kealy discloses adjusting (e.g., ‘reducing’) the source origin confidence metric (e.g., ‘a trust rating’) based on personal risk factors (e.g., ‘complaints’) of an entity associated with the calling party number or billing

¹³ Petitioner’s Reply and the Declaration of James T. Geier In Support of the Petitioner Reply for an *Inter Partes* Review of United States Patent No. 9,001,985 (Ex. 1008) do not include discussion that supplements the Petition with respect to claims 8–11, 19, and 20. *See generally* Pet. Reply; Ex. 1008; *see also* Dec. Reh’g Req. 4 (“Petitioner, however, did not take the opportunity to develop the evidentiary record regarding claims 8–11, 15, and 19–21” in its Reply or address issues raised in the Decision to Institute).

accumulated complaints, etc.” Ex. 1002, 76.	number (e.g., ‘associated with each calling device’).” Pet. 44.
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Table 3, above, provides a side-by-side comparison of the January 11, 2013 Office Action with Petitioner’s Mapping in the Petition.

Petitioner’s mapping, i.e., “personal risk factors (e.g., ‘complaints’)” relies on the Office Action issued January 11, 2013, with Petitioner’s addition of “personal.” The remainder of the text in the claim charts in the Petition are exact reproductions of disclosures found in Kealy at column 14, lines 13 through 20 and column 14, line 58 through column 15, line 6. *Compare* Pet. 44–45, *with* Ex. 1006, 14:13–20, 14:58–15:6. The Examiner relied on column 14, line 24 through column 15, line 16 of Kealy. Ex. 1002, 76–77. Petitioner identifies a subset of Kealy’s teachings relied on by the Examiner. Pet. 44–45 (citing Ex. 1006, 14:13–20, 14:58–15:6, 15:25). Petitioner’s mapping and reproduction of the subset of Kealy’s teachings are deficient for the same reasons discussed with respect to the Examiner’s findings. *See infra* § II.F.1.c.

The contentions for claim 8 also include a single footnote, which is reproduced below.

To the extent it is argued that adjusting the source origin confidence metric based on personal risk factors would not have been obvious in view of Martin’s teachings alone or Martin in view of Abramson, Kealy teaches reducing a trust rating of a calling party based on the number of complaints received. Ex. 1003 ¶146. Kealy teaches a method of combating spam calls. Ex. 1006 at Abstract, 3:28-36. As explained above, a POSITA would have been motivated to modify Martin and Abramson to utilize Kealy’s trust rating system, which uses “a metric-related threshold” (*id.* at 15:25), as an additional factor for validating

callers. As explained above, the applicants never disputed that Kealy teaches the limitations of this claim. Ex. 1003 ¶¶150-151. Pet. 44 n. 22. With respect to “personal risk factors,” the footnote does not supplement Petitioner’s contentions in the claim chart.

b) Does Petitioner Rely on the Prosecution History for Claims 8–11, 19, and 20?

Although based on our own side-by-side comparison, Petitioner’s mapping relies on the Office Action issued January 11, 2013, the Petition does not direct us to the prosecution history or the Examiner’s findings. Although footnote 22 includes a sentence stating “[a]s explained above, the applicants never disputed that Kealy teaches the limitations of this claim,” that sentence does not urge us to consider the prosecution history. Instead it is a conclusory misstatement that, for reasons explained below, does not portray Applicants’ arguments in the proper context. *See infra* § II.F.1.c. The Petition includes a general summary of the prosecution history, but the general summary does not include discussion pertaining to claims 8–11, 19, and 20 and, further, does not mention that the prosecution history should be considered with respect to those claims. Pet. 8–9.

For the first time in its Request for Rehearing, Petitioner asserted that general summary of the prosecution history is evidence that Kealy teaches “personal risk factors.” Paper 70, 3–4. More specifically, Petitioner asserted that we overlooked Petitioner’s evidence that Kealy teaches “personal risk factors.” *Id.*

In our Decision Denying Petitioner’s Request for Rehearing, we explained “Petitioner bases its assertions on belatedly-presented arguments and a mischaracterization of the facts.” Dec. Reh’g Req. 4; *see also id.* at 5

(“A request for rehearing is not an opportunity to address issues belatedly.”). Despite being presented too late, we addressed certain of Petitioner’s arguments. *Id.* at 4–5. For instance, we explained the following:

Petitioner asserts that “the Petition explains that during prosecution, the Examiner relied on Kealy’s teachings to reject the pending claims” and that “the applicants (now Patent Owner) never disputed the Examiner’s findings about Kealy.” Pet. Reh’g Req. 4. Petitioner’s over-reliance on the Examiner’s rejection of claims during prosecution over a different prior art combination and the failure by Patent Owner to dispute those findings is misplaced. Petitioner was required to explain the relevance of the prior art and how that prior art teaches the limitations of the claims in the Petition. Furthermore, Petitioner mischaracterizes the prosecution history because the Examiner’s rejection was disputed and the claims were eventually allowed. *See, e.g.*, Ex. 1002, 96–99, 196–200.

Id. at 5.¹⁴

Nonetheless, in its recent Brief on Remand, Petitioner again points to the prosecution history. In particular, Petitioner argues “[t]he Examiner (applying the same BRI construction) observed Kealy’s complaints render obvious personal risk factors.” Pet. Post Remand Br. 4 n. 4. As we previously noted, any reliance by Petitioner on the January 11, 2013 Office Action is improper since it was belatedly presented. The Petition does not set forth the “BRI construction” that Petitioner asserts for the first time in its Brief on Remand is applied by the Examiner. Petitioner’s mapping for “personal risk factors” recited in claim 8 is only “personal risk factors (*e.g.*,

¹⁴ For completeness, we incorporate our Decision Denying Petitioner’s Request for Rehearing (Paper 85) in its entirety into the instant Decision.

‘complaints’))” (Pet. 44) and the Petition is lacking further explanation. The Petition includes a general summary of the prosecution history (*id.* at 8), but that summary does not urge us to adopt any findings by the Examiner. Also, Petitioner’s statement “[t]he Examiner (applying the same BRI construction)” (Pet. Post Remand Br. 4 n. 4) is not a correct characterization of the Examiner’s findings quoted in the Petition, as is discussed further below. *See infra* § II.F.1.c.

Petitioner’s presentation of new argument in its Request for Rehearing and again in its Brief on Remand is problematic particularly given our statements in the Decision to Institute. In particular, we did not determine that Petitioner had made a sufficient showing and instead stated “[g]iven our determination [that Petitioner’s showing was sufficient for claims 1–7, 12–18, 21, and 22], we institute trial on all challenged claims and on all grounds raised in the Petition, including grounds relating to claims 8–11, 19, and 20.” Inst. Dec. 40. We also stated “[w]e look forward to hearing from the parties regarding whether Kealy teaches ‘adjusting . . . the source origin confidence metric based on personal risk factors’ recited in claims 8 and 19, as well as the personal risk factors recited in claims 9 and 20.” *Id.* at 39. As we indicated in our Decision Denying Petitioner’s Request for Rehearing, Petitioner “did not take the opportunity to develop the evidentiary record” or address our statement above. Dec. Reh’g Req. 4.

In light of the history of the instant proceedings, however, including arguments made in Petitioner’s Request for Rehearing (Paper 70, 2–6) and Petitioner’s Brief on Remand (Pet. Post Remand Br. 4 n. 4), we discuss the January 11, 2013 Office Action in detail below. Importantly, the Examiner’s

obviousness rejection was based on a different prior art combination than the challenge presented here. To discuss the Examiner's findings in the January 11, 2013 Office Action accurately and completely, we introduce into evidence and consider the primary reference relied on by the Examiner in that rejection.

Petitioner chose to wait until after the Final Written Decision in the instant proceeding to present certain arguments. Importantly, Patent Owner opposed additional, post-remand briefing on various bases including that additional briefing would give Petitioner an opportunity to introduce new theories on unpatentability into the record. Paper 93, 4. To be clear, in our view, Petitioner's Request for Rehearing and Brief on Remand introduce new theories of unpatentability. Nonetheless, we address those new theories to provide further explanation and an independent, additional reason for our determination herein.

c) Analysis of the Prosecution History

In the January 11, 2013 Office Action, the Examiner rejected dependent application claims 11–13, 21, and 22 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,963,625 (Ex. 3004, “Kawecki”) and Kealy. Ex. 1002, 76. The Examiner's mapping pertains to “one or more [of a] fraud score, risk score, etc.” and “fraud and risk factors.” Ex. 1002, 76–77. Claims 8, 10, 11, and 19 as issued do not include the term “fraud” but, instead, require “*personal* risk factors.” Claim 9 recites that “the *personal* risk factors include one or more of fraud score, risk score, credit score, marketing score, affinity score, expansion score, or warning indicators for bankruptcy, or whether a person associated with the calling party number or

billing number is deceased.” Ex. 1001, 15:51–55. Claim 20 includes a similar recitation. *Id.* at 16:49–54. As evident from the language of the claims, the “risk score” must be a “*personal* risk factor,” or else “personal” is eviscerated from the term “personal risk factor.” *Id.* at 15:51–55, 16:49–54. The same is true of “fraud score.” *Id.*

The Examiner’s findings are set forth below.

Kawecki teaches all subject matters as claimed above, except for the features of adjusting the source origin confidence metric including one or more fraud score, risk score, etc.; storing and retrieving them from an external database. However, Kealy et al. (“Kealy”) teaches trust ratings embedded in certificates of calling device, and a method of managing trust rating based on fraud and risk factors such as accumulated complaints, etc. When a quantity of accumulated complaints exceeded a given threshold or no complaints in a given time, a trust rate of a given calling device is adjusted such as reduced or increased (col. 14, line 24, through col. 15, line 16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of adjusting the source origin confidence metric including one or more fraud score, risk score, etc.; storing and retrieving them from an external database, as taught by Kealy, into view of Kawecki in order to certify the calling device for calls from unwanted “junk” phone calls.

Ex. 1002, 76–77.

The Examiner’s findings did not address whether the prior art taught “*personal* risk factors.” Moreover, the portion of Kealy relied on by the Examiner does not pertain to trust ratings or complaints that are “personal.” For instance, column 14, line 24, through column 15, line 16 of Kealy describe users’ complaints associated with *calling devices*, trust ratings

embedded in certificates bound to the *calling devices*, and users' instructions relating to accepted calls from *calling devices*. Ex. 1006, 14:24–15:16. The portion of Kealy relied on by the Examiner (*id.*) pertains to only calling devices and does not describe complaints or trust ratings that are “personal.” A calling device is equipment, such as a phone. *Id.* at 13:7–8, Fig. 1. As will be discussed further below (*see infra* § II.F.1.d), both the accumulated complaints and the trust rating pertain to a “calling device.” *Id.* The Examiner's findings do not include mention of the claim recitation “personal risk factors” and do not refer to teachings relating to risk factors that are “personal.” Ex. 1002, 76–77.

The Examiner's findings include the statement “Kawecki teaches all subject matters as claimed above, except for the features of adjusting the source origin confidence metric including one or more fraud score, risk score, etc.; storing and retrieving them from an external database.” *Id.* For completeness, we note with respect to “subject matters as claimed above” that the Examiner pointed to Kawecki's “collecting account and PIN information” in connection with the independent application claims. Ex. 1002, 73–74 (citing Ex. 3004, 10:39–46). Kawecki describes that “the PIN *personally* identifies the caller.” Ex. 3004, 10:39–46 (emphasis added). Another portion of Kawecki relied on by the Examiner describes

formulating a query to a billing platform with a credit history. *Id.* at 10:53–56 (cited in Ex. 1002, 73–74).¹⁵

The January 11, 2013 Office Action is deficient with respect to “personal risk factors.” Petitioner’s belatedly-presented arguments in its Request for Rehearing urging us to fill in the deficiency relying on the Examiner’s findings relating to Kealy (Dec. Reh’g Req. 3–4) are misplaced. Petitioner asks us to speculate based on an incomplete portrayal of the prosecution history that omits the Examiner’s findings relating to the primary reference. The portions of Kealy that Petitioner relies on in the Petition do not teach “personal risk factors.” Petitioner’s addition of the word “personal” to the Examiner’s mapping relating to Kealy without the addition of any prior art disclosure corresponding to “personal” is likewise deficient. Petitioner’s belatedly-presented arguments relying on the findings by the Examiner in the January 11, 2013 Office Action are based on an erroneous portrayal of that Office Action.

Although Petitioner’s argument in its Brief on Remand is belatedly presented, we address it here. Petitioner argues “[t]he Examiner (applying the same BRI construction) observed Kealy’s complaints render obvious personal risk factors.” Pet. Post Remand Br. 4 n. 4. For the reasons given herein, Petitioner’s argument is misplaced. For instance, contrary to Petitioner’s argument, the Examiner’s findings do not include mention of the

¹⁵ Petitioner does not rely on Kawecky and has not made any arguments pertaining to Kawecky in this proceeding. *See generally* Pet.; Pet. Reply. Accordingly, we do not consider any of Kawecky’s teachings in our unpatentability analysis.

claim recitation “personal risk factors.” Ex. 1002, 76–77. Indeed, the Examiner’s findings fail to include the term “personal.” *Id.* Furthermore, the primary reference, Kaweck, uses the similar term “personally.” Ex. 3004, 10:39–46 (emphasis added).¹⁶

We turn to Petitioner’s statement that “[a]s explained above, the applicants never disputed that Kealy teaches the limitations of this claim.” Pet. 44 n. 22 (citing Ex. 1003 ¶¶ 150–151). The term “above” appears to refer to a similar statement in a summary of the prosecution history. Pet. 8 (stating “[t]he applicants never disputed the Examiner’s findings as to Kealy”). We disagree with Petitioner.

Following an interview with the Examiner held on July 10, 2014, on October 15, 2014 (Ex. 1002, 170–171), Applicant filed an Amendment to distinguish the prior art of record. *Id.* at 173–184. In remarks filed with that Amendment, Applicant argued “Applicants respectfully reserve the right to prosecute similar or broader claims, with respect to any amended and/or cancelled claims, in the future.” *Id.* at 180. Applicants included similar

¹⁶ Although not necessary for our determinations herein, we note that similar to the common term “personal” recited in the claims, the term “personally” is used in the ’985 Patent Specification in a manner that is inconsistent with a broadest reasonable interpretation that encompasses risk factors of a calling device. *Id.* at 5:15–20 (describing “personally identifiable information (PII)” as “voice biometrics,” a “social security number,” or a “date of birth”). Furthermore, Petitioner did not present argument in a timely manner. Even at this late stage, in its post-remand brief time, Petitioner provides only a vague mention of a “BRI construction” without more discussion as to what that construction is or why it should be adopted based on the entirety of the intrinsic record. Pet. Post Remand Br. 4 n. 4.

remarks with another Amendment. *Id.* at 132 (arguing the same with remarks submitted on March 24, 2014). A Notice of Allowance was entered January 6, 2015. *Id.* at 192. Applicant sought allowance of the independent Application claims. *See, e.g.*, Ex. 1002, 170–184. Considering Applicant’s remarks made in connection with its Amendment in context, those remarks are inconsistent with Petitioner’s argument that Applicant did not dispute the Examiner’s findings as to Kealy. *Id.* at 180.

Furthermore, insofar as Petitioner continues to rely on the prosecution history, the Federal Circuit expressly stated “there is no legal basis for the proposition the Board must defer to the examiner's previous findings in deciding the merits of an IPR.” *TRUSTID*, 2021 WL 4427918, at *8. Upon consideration of the Examiner’s findings, in addition to the reasons given above, the Examiner ultimately allowed the claims after consideration of Kealy. Petitioner’s belatedly-presented arguments are unavailing as they do not take into account the complete prosecution history and include unsupported characterizations that are contrary to the Examiner’s actual findings.

d) Analysis of Petitioner’s Arguments and Evidence Including Kealy and Mr. Geier’s Declaration— Claims 8, 10, 11, and 19

Petitioner’s arguments and evidence are deficient in that Petitioner does not show that the prior art teaches the limitation “personal risk factors,” which is required by each of claims 8–11, 19, and 20. The portions of Kealy relied on by Petitioner suffer from the same deficiency as the portions relied on by the Examiner in that Kealy’s accumulated complaints and the trust rating pertain to only calling devices and are not “personal.” *See, e.g.*,

Ex. 1006, 14:13–20, 14:58–15:6. A calling device is equipment, such as a phone. Ex. 1006, 13:7–8, Fig. 1. Petitioner does not provide explanation sufficient to discern a theory as to how the accumulated complaints and trust rating pertaining to only calling devices could meet the claim limitation “personal risk factors.” For that reason alone, Petitioner has not demonstrated unpatentability of claims 8, 10, 11, and 19. For completeness and as an independent reason for our determination, however, we discuss in more detail below Petitioner’s arguments and evidence. Our discussion is a belt and suspenders approach discussing portions of Kealy relied on, although the Petition does not tie those teachings sufficiently to the recitation “personal risk factors.”

We start with Petitioner’s arguments for claim 8. Petitioner’s mapping for “personal risk factors” is only “**personal risk factors (e.g., ‘complaints’)**.” Pet. 44. Kealy’s complaints do not teach “personal risk factors” as those complaints pertain to only calling devices and are not “personal.” *See supra* § II.F.1.c. The Petition’s cursory mapping fails to set forth any explanation or argument directed at this deficiency.

The text in the claim charts following Petitioner’s mapping are exact reproductions of disclosures found in Kealy at column 14, lines 13 through 20 and column 14, line 58 through column 15, line 6, which are cited in connection with Petitioner’s mapping. *Compare* Pet. 44–45, *with* Ex. 1006, 14:13–20, 14:58–15:6. The first portion of Kealy describes call management rules including a first category of lowest trust ratings, a second category of intermediate trust ratings, and a third category of highest trust ratings. Ex. 1006, 14:13–20. That portion of Kealy does not describe the trust ratings,

but rather what may occur as the result of a trust rating. Those actions include conditionally rejecting the call, conditionally completing the call, and unconditionally completing the call. *Id.* The trust rating pertains to a “calling device.” *Id.* at 14:58–15:6.

The second portion of Kealy provides details regarding Kealy’s method as follows:

The present disclosure also supports a method (FIG. 2) of managing trust ratings that are embedded in certificates of *calling devices* in a Voice over Internet Protocol (VoIP) communications system. The method may involve automatically accumulating complaints concerning VoIP calls initiated from calling devices, and (208) comparing respective quantities of accumulated complaints associated with each *calling device*. When a quantity of accumulated complaints associated with a *given calling device* exceeds a given threshold, the method may involve (220) reducing a trust rating of the given *calling device*; and in call requests of subsequent VoIP calls that the given *calling device* attempts to place, the method may further involve including the reduced trust rating so that the subsequent calls are subject to more austere call screening operations than calls having the unreduced trust rating before the reducing step.

Ex. 1006, 14:58–15:6. (emphases added).

As is set forth in the second portion of Kealy reproduced above, both the accumulated complaints and the trust rating pertain to a “calling device.” *Id.* The calling device is equipment, such as a phone. *Id.* at 13:7–8, Fig. 1.

The portions of Kealy relied on by Petitioner do not teach “personal risk factors” or risk factors that are “personal.” *See supra* § II.F.1.c. Kealy’s accumulated complaints and the trust rating pertain to only calling devices

and are not “personal.” *See, e.g.*, Ex. 1006, 14:13–20, 14:58–15:6. A calling device is equipment, such as a phone. Ex. 1006, 13:7–8, Fig. 1.¹⁷

Although not necessary for our determination, we note that nothing in Kealy’s teachings precludes unwanted calls due to equipment malfunctions from being reported as a complaint or being considered in a trust rating. Martin describes unwanted calls due to equipment malfunction. For example, Martin explains “[a]n alarm system panel may have a bug in it or a component failure, such as a dead battery, that causes the alarm system panel to call the central monitoring station every 30 seconds, known as a ‘runaway dialer.’” Ex. 1004 ¶ 3. Accumulated complaints and trust ratings associated with calling devices may pertain to equipment malfunctions, such as those described by Martin, and do not teach “personal risk factors” recited in the claims.

We turn to the remaining discussion in the Petition, which is in footnote 22. Petitioner does not provide additional argument or evidence to resolve the aforementioned deficiency. Petitioner’s assertions that Kealy’s teachings relate to “a calling party” and “callers” (*id.*) mischaracterize Kealy’s teachings, which relate to only calling devices. *See, e.g.*, Ex. 1006, 14:58–15:6.

¹⁷ Kealy further describes that the trust rating is not personal and is associated with only the equipment. *See, e.g.*, 6:57–60 (“[A] person will still be blacklisted *even if he changes his phone number or other identifiers, so long as he maintains the same equipment* and therefore the same certificate.”) (emphasis added).

In footnote 22, Petitioner points to Kealy’s Abstract, as well as two other short disclosures in Kealy. Pet. 44 n. 22 (citing Ex. 1006, code (57), 3:28–36, 15:25). As explained below, the teachings in Kealy identified in footnote 22 do not resolve the deficiency with respect to “personal risk factors.” *Id.*

We start with Kealy’s Abstract. Kealy’s Abstract is very similar to column 14, line 58 through column 15, line 6 of Kealy reproduced above. The minor differences are stylistic. For instance, column 14, line 58 through column 15, line 6 of Kealy describe that Kealy’s method “may involve” automatically accumulating complaints, whereas Kealy’s Abstract describes that the method “involves” automatically accumulating complaints. *Compare* Ex. 1006, 14:58–15:6, *with id.* at code (57).

Kealy’s Abstract includes two additional sentences as follows: “Call recipients thus affect the calling device’s trust rating simply by entering complaints associated with received calls. The method effectively combats spam over Internet telephony (SPIT) through participation of called parties.” Ex. 1006, code (57). The only people are “[c]all recipients” or “*called* parties.” *Id.* (emphasis added). Complaints submitted by call *recipients* or *called* parties do not teach “personal risk factors of an entity associated with the *calling* party number or billing number,” as required in claims 8 and 19.

The next of the disclosures in footnote 22 is reproduced below.

The inventive VoIP call management arrangement described herein solves a problem identified with Voice over IP (VoIP), namely, that of unsolicited commercial or other unwanted telephone calls. Distinct from email spam, which has already become an onerous burden to email users worldwide, spam over Internet telephony, or SPIT, becomes a growing issue

as VoIP becomes more widely used and calls placed by VoIP spammers (called SPITters) approach zero incremental cost. Ex. 1006, 3:28–36.

Kealy’s disclosure above describes a broad asserted problem, i.e., “unsolicited commercial or other unwanted telephone calls.” *Id.* Kealy describes that problem further by stating that spam over Internet telephony is a “growing issue.” *Id.* This disclosure does not provide explanation as to how any solution is achieved other than to refer to “[t]he inventive VoIP call management arrangement described herein.” *Id.* Kealy’s disclosure at column 3, lines 38 through 36 quoted above does not teach “personal risk factors.”

The remaining portion of Kealy relied on by Petitioner (Pet. 44 n. 22) describes increasing a trust level “after a metric has surpassed a metric related threshold.” Ex. 1006, 15:25. That short statement is relied upon by Petitioner to show that Kealy is related to Martin and Abramson. Pet. 44 n. 22. The short statement does not teach “personal risk factors.”

We turn to Mr. Geier’s Declaration testimony (citing Ex. 1003 ¶¶ 147–151) relied on in the Petition. Pet. 44–45. Mr. Geier’s Declaration testimony does not remedy the deficiency discussed with respect to Kealy. Paragraph 147 of Mr. Geier’s Declaration testimony is as follows: “Specifically, Kealy teaches a method of combating spam calls. Ex. 1006 at Abstract, 3:28-36. Kealy teaches reducing a trust rating based on complain[t]s associated with each calling device. Ex. 1006 at 14:13-20, 14:58-15:6.” Ex. 1003 ¶ 147. Mr. Geier’s Declaration testimony does not add anything to Kealy’s teachings. Also, Mr. Geier’s Declaration testimony relies on the same teachings in Kealy relied on in the Petition and discussed

above. Paragraph 147 of Mr. Geier's testimony is deficient for the same reasons the Petition is deficient.

Paragraph 148 of Mr. Geier's Declaration includes nothing more than a direct quote of column 14, lines 13 through 20 of Kealy. *Compare* Ex. 1003 ¶ 148, *with* Ex. 1006, 14:13–30. Paragraph 149 of Mr. Geier's Declaration includes nothing more than a direct quote of column 14, line 58 through column 15, line 6 of Kealy. *Compare* Ex. 1003 ¶ 149, *with* Ex. 1006, 14:58–15:6. Mr. Geier's Declaration testimony in paragraphs 148 and 149 relies on the same teachings in Kealy relied on in the Petition and discussed above. Paragraphs 148 and 149 of Mr. Geier's testimony are deficient for the same reasons the Petition is deficient.

Paragraph 150 of Mr. Geier's Declaration testimony includes a conclusory statement that modifying the combination of Martin and Abramson to use Kealy's trust rating system meets the further recitations in claim 8, including "personal risk factors." Ex. 1003 ¶ 150. Mr. Geier's Declaration testimony (*id.*) refers to Kealy's teaching that it uses a "metric-related threshold." Ex. 1006, 15:25. That teaching does not remedy the aforementioned deficiency.

Paragraph 151 of Mr. Geier's Declaration testimony is a single sentence as follows: "As explained above, the applicants never disputed that Kealy teaches the limitations of this claim." Ex. 1003 ¶ 151. The same sentence is found in the Petition and is discussed above. Paragraph 151 of Mr. Geier's Declaration testimony is an incorrect characterization of the prosecution history and does not remedy the deficiency discussed above.

Paragraph 152 of Mr. Geier's Declaration testimony refers to a claim chart in Appendix C of his Declaration. Ex. 1003 ¶ 152. That claim chart is substantially the same as in the Petition for claims 8–11, 19, and 20.

Compare Pet. 43–50, 58, *with* Ex. 1003, 129–136, 144–145.¹⁸ Examples of the minor differences are that the reproduction of certain prior art disclosures in Mr. Geier's Declaration testimony include a few additional words in the same cited portion as compared to the Petition. *Id.*

For claims 10, 11, and 19, Petitioner refers to claim 8. Pet. 45–50, 58. With respect to claims 10 and 11, Petitioner also identifies teachings in Martin in connection with “retrieving consortium information . . . from an external database” recited in claim 10 and “wherein the external database includes data for calling velocity to multiple locations within a specified time period for the calling party number or billing number, or known fraudulent calling party numbers or billing numbers” recited in claim 11. *Id.* at 46–50. Petitioner does not identify any additional teachings in Kealy with respect to claims 10 and 11. *Id.* For claim 19, Petitioner includes only citations to claims 8 and 13. *Id.* at 58. Petitioner's assertions and evidence for claims 10, 11, and 19 do not remedy the aforementioned deficiency.

In summary, with respect to claims 8, 10, 11, and 19, the Petition is deficient with respect to how the prior art teaches “personal risk factors.” The entirety of Petitioner's analysis of “personal risk factors” is that Kealy discloses “**personal risk factors (e.g., ‘complaints’)**.” Pet. 44. The Petition

¹⁸ This reference is to page numbers in the lower right-hand column of Exhibit 1003. Page 129 of Exhibit 1003 corresponds to page 24 of Appendix C.

lacks further explanation and does not address the term “personal” in “personal risk factors.” Although the Petition includes additional text, the text is reproductions of Kealy’s teachings pertaining to a calling device. *Compare* Pet. 44–45, with Ex. 1006, 14:13–20, 14:58–15:6. Petitioner’s only other discussion is a mischaracterization of Kealy as relating to a “calling party” and “validating callers.” Pet. 44 n. 22. Contrary to Petitioner’s incorrect characterization, the teachings in Kealy relied upon pertain to only a calling *device*, such as a phone. Ex. 1006, code (57), 3:28–36, 13:7–8, 14:13–20, 14:58–15:6, 15:25, Fig. 1.

Accordingly, in its contentions for claims 8, 10, 11, and 19, we determine that Petitioner has not shown that Kealy teaches “personal risk factors.”

e) *Analysis of Petitioner’s Arguments and Evidence Including Kealy and Mr. Geier’s Declaration— Claims 9 and 20*

Claims 9 and 20 depend from claims 8 and 13, respectively. Claims 9 and 20 each recite “personal risk factors” that “include one or more of fraud score, risk score, credit score, marketing score, affinity score, expansion score, or warning indicators for bankruptcy, or whether a person associated with the calling party number or billing number is deceased.” Petitioner’s argument for claim 9 refers to claim 8. Pet. 45–50, 58. Petitioner’s argument for claim 20 refers to claim 9. *Id.* at 58. In its arguments and evidence for claim 8, Petitioner does not show that the prior art teaches the limitation “personal risk factors,” which is also required by each of claims 9 and 20.

Petitioner provides additional mapping and argument with respect to only claim 9. *Id.* Petitioner does not identify any additional teachings in

Kealy with respect to claim 9. *Id.* at 45–46, 58. We discuss Petitioner’s mapping and argument for claim 9 below. For claim 20, Petitioner does not provide separate or additional arguments and, instead, relies entirely on its mapping and arguments for claim 9. Pet. 58.

For claim 9, although Petitioner again points to Kealy’s teaching of accumulating complaints by called parties for “personal risk factors,” Petitioner points to Kealy’s teaching of a “trust rating” for the recitations of “marketing score” and “affinity score.” Pet. 45–46, 58 (citing Ex. 1006, (57); Ex. 1003 ¶¶ 153–155). Petitioner assertions for claim 8 (*id.*), relied on for claim 9, include mapping Kealy’s same “trust rating” to the recitation of “source origin confidence metric” recited in claim 8. *Id.* at 44. Petitioner’s mapping indicates that Petitioner relies on the same teaching in Kealy for very different limitations. Specifically, Petitioner relies on Kealy’s “trust rating” for both the metric that is adjusted, i.e., “source origin confidence metric” and for two factors that are used to adjust that metric, i.e., “marketing score” and “affinity score.” *Id.* at 44–46. Petitioner’s mapping for claim 9 is confusing and not consistent with the claims or Kealy’s teachings.

The Petition includes the following additional argument relating to “marketing score” or “affinity score.”

A POSITA would have understood that Kealy’s “trust rating” as used to identify spammers is a form of a “marketing score” or “affinity score” as claimed. Specifically, a POSITA would have understood a marketing score to relate to the quality of the service provided. Similarly, the affinity score would have been understood to relate to the called party’s relation or interest in receiving calls from the calling party. For example, in Martin

the affinity score would have related to the likelihood that the calling party is a subscriber. Kealy's trust rating serves both purposes. To the extent it is argued that additional disclosure is required, it would have been obvious to a POSITA use one or more of the claimed "scores" in assessing the risk of the caller. Ex. 1003 ¶156.

Pet. 45 n. 23. Paragraph 156 of Mr. Geier's Declaration testimony is almost the same. *Compare id.*, with Ex. 1003 ¶ 156.¹⁹

Petitioner does not state that it proposes constructions for the terms "marketing score" and "affinity score." Petitioner states that a person having ordinary skill in the art "would have understood a marketing score to relate to the quality of the service provided." Pet. 45 n. 23 (citing Ex. 1003 ¶ 156). Petitioner also states "[s]imilarly, the affinity score would have been understood to relate to the called party's relation or interest in receiving calls from the calling party." *Id.*

Petitioner has not shown any support in the intrinsic record for those contentions. To the extent Petitioner's contentions are implicitly proposed constructions, in this *inter partes* review, we construe claim terms according to their broadest reasonable construction *in light of the specification of the patent in which they appear*. 37 C.F.R. § 42.100(b) (2018); *see also in re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc)) (explaining that under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be

¹⁹ Mr. Geier's Declaration includes the following additional testimony "one of Kealy's express concerns [is] the feasibility 'for marketers to place unsolicited telephone calls.'" Ex. 1003 ¶ 156 (citing Ex. 1006 at 1:21–24).

understood by one of ordinary skill in the art in the context of the entire disclosure). Petitioner's contentions for "marketing score" and "affinity score" lack support in the intrinsic record. For instance, the '985 Patent Specification does not describe "marketing score" in connection with quality of service. Petitioner's contentions regarding "affinity score" lack clarity as to what is meant by "relate to the called party's relation or interest" (Pet. 45 n. 23; Ex. 1003 ¶ 56) and no similar description is found in the '985 Patent Specification.

The only evidentiary support Petitioner offers for its contentions regarding "marketing score" and "affinity score" is Mr. Geier's Declaration testimony. Pet. 45 n. 23 (citing Ex. 1003 ¶ 156). Mr. Geier's testimony is the same as the contentions in the Petition, i.e., that "a POSITA would have understood a marketing score to relate to the quality of the service provided" and "[s]imilarly, an affinity score would have been understood to relate to the called party's relation or interest in receiving calls from the calling party." Ex. 1003 ¶ 156. Mr. Geier's testimony is conclusory and does not include supporting evidence. We, therefore, give Mr. Geier's Declaration testimony little to no weight. *See* 37 C.F.R. § 42.65 (a) ("Expert testimony that does not disclose the underlying factors or data on which the opinion is based is entitled to little or no weight.").

To the extent Petitioner's contentions are implicitly proposed constructions, in light of the lack of support in the intrinsic record and our determination to give Mr. Geier's Declaration testimony little to no weight, we do not adopt Petitioner's implicitly proposed constructions. As the parties' dispute pertains to "personal risk factors," we do not discern a need

to construe explicitly the terms “marketing score” and “affinity score” because doing so would not change the outcome of the analysis. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Petitioner asserts that Kealy’s “trust rating serves both purposes,” which seems to refer to purposes of the “marketing score” and “affinity score.” Pet. 45 n. 23. Petitioner’s assertion is conclusory. Petitioner has not shown that Kealy’s teaches “both purposes” to the extent that those purposes are set forth with sufficient clarity in the Petition. Petitioner also has not shown that Kealy teaches “marketing score” or affinity score” using Petitioner’s characterizations of those terms, i.e., that a person having ordinary skill in the art “would have understood a marketing score to relate to the quality of the service provided” (Pet. 45 n. 23 (citing Ex. 1003 ¶ 156)) and “[s]imilarly, the affinity score would have been understood to relate to the called party’s relation or interest in receiving calls from the calling party” (*id.*). Importantly, Kealy’s “trust rating” is reduced based just on accumulated complaints associated with equipment, i.e., a calling device. Petitioner’s contentions relating to Kealy’s “trust rating” and the recitations of “marketing score” and “affinity score” (Pet. 45 n. 23) do not remedy the deficiency i.e., that Kealy does not teach “personal risk factors.”

Mr. Geier’s Declaration includes additional testimony that is in the same paragraph discussed above, but does not appear to pertain to

Petitioner's contentions regarding how a person having ordinary skill in the art would have understood "marketing score" and "affinity score." For completeness, we consider Mr. Geier's additional testimony. Mr. Geier testifies "one of Kealy's express concerns [is] the feasibility 'for marketers to place unsolicited telephone calls.'" Ex. 1003 ¶ 156 (citing Ex. 1006 at 1:21–24). The cited portion of Kealy teaches that the telephone calls are "either interactive or with recorded messages" and the telephone calls are "to extremely large quantities of telephone numbers." Ex. 1006 at 1:21–24. The cited portion of Kealy does not teach using "personal risk factors."

Accordingly, in its contentions for claims 9 and 20, we determine that Petitioner has once again not shown that Kealy teaches "personal risk factors."

f) Petitioner's Brief on Remand

During the call on November 16, 2021 held in accordance with Standard Operating Procedure 9, Petitioner requested additional briefing. Paper 93, 3–4. On November 18, 2021, we issued an Order allowing briefing by Petitioner limited to identifying arguments previously made in the Petition and pointing to where in the Petition those arguments were made. *Id.* at 4–5. Patent Owner was allowed responsive briefing. *Id.* at 5–6. The parties filed their post-remand submissions. Pet. Post Remand Br.; PO Post Remand Br.

Petitioner's Brief on Remand is not in compliance with our Order because it re-characterizes the prior art in a manner that is different from Petitioner's prior presentation and presents arguments that are new at this late stage. *See generally* Pet. Post Remand Br. For instance, in connection

with its assertion that Kealy teaches “personal risk factors,” Petitioner points to Kealy’s teachings relating to details of call management rules that are performed after Kealy’s trust rating is determined. *Id.* at 3. A summary of Kealy in the Petition included a simple reproduction of that disclosure, but without any indication that Petitioner was relying on it for teaching “personal risk factors.” Pet. 20. Also, nothing in Petitioner’s summary highlighted trust ratings 7 through 9, the associated call management operation, or the reference to “caller’s trust rating” within that discussion and nothing indicated a reliance on that in connection with “personal risk factors.” *Id.* at 19–20. Petitioner’s citation to page 20 of the Petition in connection with its reference to “[t]hose callers with reduced trust ratings” is a new argument presented for the first time as part of the remand proceedings. Pet. Post Remand Br. 3.

Petitioner also points to its contentions relating to “marketing score” and “affinity score” for showing that Kealy teaches “personal risk factors” required by all claims. *Id.* at 3–4. Petitioner made a similar argument in its Request for Rehearing. Paper 70, 5. The only mention of “marketing score” and “affinity score” in the Petition is with claim 9. Pet. 45–46, 58.

Petitioner’s argument applying its claim 9 analysis to other claims was presented in its Request for Rehearing. Paper 70, 5. We explained in our Decision Denying Petitioner’s Request for Rehearing that Petitioner’s argument was belatedly presented. Dec. Reh’g Req.5–6. We incorporate our Decision Denying Petitioner’s Request for Rehearing (*id.*) in its entirety into the instant Final Decision on Remand.

Petitioner's new arguments in its post-remand submission relating to "personal risk factors" are pervasive throughout the brief.²⁰ As such, Petitioner's brief is not in compliance with our Order and we need not consider it for that reason alone.

As an independent reason for our determination that the Petition is deficient with respect to showing that the prior art teaches "personal risk factors," we address certain of Petitioner's improper, new arguments. With respect to the call management rules, Petitioner states that Kealy shows "suspect callers presented with 'challenged/response' scenario 'to provide a spoken reason for the call, [or] type his number or identity to allow the call recipient to decide whether or not to accept the call etc.'" Pet. Post Remand Br. 3 (citing Pet. 20 (providing a generalized summary of Kealy)). The claimed steps of determining and adjusting the confidence metric occur before the incoming call is answered. *See, e.g.*, Ex. 1001, 15:12, 16:11, Fig. 1. In contrast, the call management operations relied on by Petitioner for the first time in its post-remand submission (Pet. Post Remand Br. 3) occur as the call is being answered. Ex. 1006, 9:38–64 (teaching a "challenge/response" scenario that "allow[s] the call recipient to decide whether or not to accept the call" and "a 'reject call' option" that shows the trust rating). Petitioner does not explain how call management operations occurring as the call is being answered and after Kealy's trust rating is

²⁰ As discussed above (*see* § II.F.1.b), Petitioner also makes a new argument relating to the prosecution history and stating that the Examiner "observed Kealy's complaints render obvious personal risk factors." Pet. Post Remand Br. 4 n. 4.

determined relate to the recitations in the challenged claims, such as determining and adjusting a source original confidence metric that Petitioner states is taught by Kealy's trust rating (Pet. 44).

Also, in its post-remand submission, Petitioner characterizes Kealy as relating to "callers with reduced trust ratings." Pet. Post Remand Br. 3. The call management operations relied on by Petitioner for the first time in its post-remand submission (*id.*) include only a single reference to a "caller's trust rating" (Ex. 1006, 9:57). That statement pertains to a call management rule that rings as a normal call, shows the trust rating, and presents a reject option. *Id.* at 9:54–59. The sentence includes a reference to a "caller's" trust rating. *Id.* To the extent that "caller's" is relied on to satisfy the requirement that the "risk factors" recited in the claim are "personal" that reliance is not consistent with Kealy's teachings discussed throughout that make clear that Kealy's trust rating is associated with the calling device. For instance, Kealy teaches that its trust rating will be reduced based on "accumulated complaints associated with a given *calling device*," which is not a reduction based on complaints associated with a *caller*. *Id.* at code (57), 14:61–65 (teaching comparing "respective quantities of accumulated complaints associated with each *calling device*." (emphases added). Also, Kealy teaches that its trust ratings "are embedded in certificates of calling devices." *Id.* at code (57), 14:58–60. Additionally, Kealy teaches that "a person will still be blacklisted even if he changes his phone number or other identifiers, so long as he maintains the same equipment and therefore the same certificate." Ex. 1006, 6:57–60. The one statement in Kealy referring to "callers with reduced trust ratings" (*id.* at 9:57) is not made in connection

with Kealy's detailed discussion of determining a trust rating (*see, e.g., id.* at 14:58–15:6) and does not teach the disputed claim recitation.

Petitioner also refers to the prosecution history and states that the Examiner “observed Kealy’s complaints render obvious personal risk factors” (Pet. Post Remand Br. 4 n. 4), although the Examiner’s findings are deficient in that the Examiner does not address “personal risk factors.” *See supra* § II.F.1.c. Petitioner also indicates that the Examiner applied the broadest reasonable interpretation (Pet. Post Remand Br. 4 n. 4), but the Examiner does not use the term “personal” (Ex. 1002, 76–77) so Petitioner is incorrect that the Examiner’s findings are based on a broadest reasonable interpretation of a term not addressed by the Examiner. Petitioner improperly embellishes the Examiner’s deficient findings.

Petitioner’s post-remand submission is not in compliance with our Order because it presents arguments that are new at this late stage and belatedly submitted. For that reason alone, the arguments in Petitioner’s post-remand submission do not remedy the deficiency in the Petition. As an independent reason, even upon consideration, the new arguments in Petitioner’s post-remand submission do not remedy the deficiency in the Petition.

g) Conclusion

Accordingly, based on the complete record now before us, we determine that Petitioner has not shown that Kealy teaches “personal risk factors” as required by each of claims 8–11, 19, and 20.

2. *Reasoning to Combine Martin, Abramson, and Kealy*

In our First Final Written Decision with respect to claims 8–11, 19, and 20, we stated that Petitioner “has not shown why or how a person having ordinary skill in the art would have modified the Martin and Abramson combination with Kealy to perform the further step of ‘adjusting . . . the source origin confidence metric based on personal risk factors.’” Final Dec. 88. The Federal Circuit stated that our analysis with respect to motivation to combine was insufficient. *TRUSTID*, 2021 WL 4427918, at *8. We address the insufficiency below.

a) *Analysis of the Petition and Mr. Geier’s Declaration*

The Federal Circuit’s decision addresses Petitioner’s discussion relating to the combination of Martin and Kealy, as well as the discussion relating to the combination of Martin, Abramson, and Kealy. *TRUSTID*, 2021 WL 4427918, at *1, *8. Claims 8–11 depend, directly or indirectly, on claim 1. Claims 19 and 20 depend from claim 13. As stated above, Petitioner has not demonstrated by a preponderance of the evidence that claims 8–11, 19, and 20 of the ’985 Patent are unpatentable, under 35 U.S.C. § 103(a), as obvious over Martin and Kealy because Petitioner’s contentions are deficient for the same reasons given for independent claims 1 and 13. *See* § II.E.

We start our analysis by discussing portions of the Petition relating to the combination of Martin and Kealy that were discussed by the Federal Circuit and whether those contentions apply to the combination of Martin, Abramson, and Kealy. We then turn to Petitioner’s contentions relating to Martin, Abramson, and Kealy.

The Federal Circuit quoted Petitioner’s assertion that “Kealy’s teachings of trust ratings would have been . . . ‘particularly beneficial to Martin’s assessment of VoIP calls,’ and such a motivation would have had the benefit of ‘reduc[ing] costs associated’ with such calls.” *TRUSTID*, 2021 WL 4427918, at *8 (citing Pet. 21). The Federal Circuit also quoted the portion of the Petition reproduced below:

A [person of ordinary skill in the art] POSITA would have found it obvious and straightforward to use Kealy’s advantageous teachings of trust ratings to further assess the legitimacy of an alarm call in Martin’s system. A [person of ordinary skill in the art] would have understood how to make the modification to Martin’s program, and such a modification would have been routine and predictable. Indeed, Martin’s status information is readily adaptable and could maintain trust ratings as part of its “additional information.” Ex. 1004 at [0023], Fig. 2. Ex. 1003 ¶67.
Id. (citing Pet. 21).²¹

Petitioner’s reasoning to combine Martin and Kealy does not apply to the combination of Martin, Abramson, and Kealy. We start with Petitioner’s assertion that “Kealy’s solution would have been particularly beneficial to Martin’s assessment of VoIP calls” and the proposed combination would have had the benefit of “reduc[ing] costs associated” with VoIP calls. Pet. 21. Those assertions only pertain to Martin’s technology. In contrast to Martin, Petitioner acknowledges “Abramson and Kealy both teach the use of

²¹ The quotes above are in a section of the Petition with the title “Motivation to Combine Martin and Kealy” (Pet. 20), which pertains to just Martin and Kealy. *Id.* at 20–23.

call terminals capable of VoIP calls.” *Id.* at 22 (citing Ex. 1005 ¶ 15, Fig. 2; Ex. 1006, code (57)).

We turn to Petitioner’s assertion that the proposed modification would have been routine and predictable because Martin’s status information is readily adaptable and could maintain trust ratings as part of its “additional information.” Pet. 21. Petitioner’s simple assertion that trust ratings could be maintained in storage does not explain how the trust ratings would be used, for example, to adjust the source origin confidence metric. Also, the simple modification of storing additional data would not result in the subject matter recited in the independent claims that are met only by the combined Martin and Abramson system, as will be discussed further below. Final Dec. 37–52, 56.

We now turn to Petitioner’s contentions regarding Martin, Abramson, and Kealy. Petitioner asserts that Kealy’s trust rating would have “further bolster[ed]” the combined Martin and Abramson system and that “incorporating Kealy’s teachings would strengthen the Martin/Abramson systems capabilities to reject spam callers, *particularly those arriving over the VoIP system.*” *Id.* at 22 (citing Ex. 1003 ¶ 68) (emphasis added). As Petitioner acknowledges (*id.*), Abramson teaches “Internet protocol network 108 is capable of switching incoming calls from network 101 to terminals that are capable of Voice over Internet Protocol (VoIP), such as telephone 109.” Ex. 1005 ¶ 15. Thus, the Martin and Abramson system handles calls arriving over the VoIP system, so a person having ordinary skill in the art would not have had a reason to modify the combined Martin and Abramson

system to achieve that capability.²² Petitioner’s assertions regarding reasoning to combine Martin, Abramson, and Kealy are conclusory and lack supporting evidence. Pet. 22–23.

Petitioner also describes similarities in the three references. For instance, Petitioner asserts that each of Martin, Abramson, and Kealy teaches methods of combatting unwanted calls and has similar goals and methods of implementation. Pet. 22. Petitioner’s contentions pointing to similarities in Martin, Abramson, and Kealy do not suffice as an articulated reason with rational underpinning to combine their respective teachings—more is required to support the legal conclusion of obviousness. *See KSR*, 550 U.S. at 418. The Federal Circuit has concluded that merely asserting that references were drawn from the same field of art is “simply too conclusory” to show that the skilled artisan would have combined these references in the way of the claimed invention. *Securus Techs., Inc. v. Glob. Tel*Link Corp.*, 701 F. App’x 971, 976 (Fed. Cir. 2017); *see Microsoft Corp. v. Enfish, LLC*, 662 F. App’x 981, 990 (Fed. Cir. 2016) (determining that “the Board correctly concluded” that a petitioner “did not articulate a sufficient motivation to combine” where the only reason given was “that references were directed to the same art or same techniques”). In the same way, Petitioner’s contentions here that the references are similar do not show why the ordinarily-skilled artisan would have combined Martin, Abramson, and Kealy.

²² Indeed, Abramson further teaches “[n]etwork 108 is also capable of handling outgoing calls from VoIP-capable terminals to network 101.” *Id.*

Petitioner relies on Mr. Geier's Declaration testimony as evidence in supporting its assertions. *Id.* (citing Ex. 1003 ¶¶ 68–69). Mr. Geier's testimony, however, includes the same conclusory assertions that are in the Petition without further discussion or explanation. *Compare* Ex. 1003 ¶¶ 68–69, *with* Pet 22–23. Mr. Geier's testimony also does not indicate the evidence he relied upon in forming his conclusions. Ex. 1003 ¶¶ 68–69. We, therefore, give Mr. Geier's Declaration testimony little to no weight. *See* 37 C.F.R. § 42.65 (a) (“Expert testimony that does not disclose the underlying factors or data on which the opinion is based is entitled to little or no weight.”)

We turn to Petitioner's contention regarding how a person having ordinary skill in the art would have made the proposed modification, which is similar to that provided for the combination of just Martin and Kealy. In particular, Petitioner asserts “a POSITA would have been motivated to modify Martin and Abramson to utilize Kealy's trust rating system, which uses ‘a metric-related threshold’ (Ex. 1006, 15:25), as an additional factor for validating callers.” Pet. 44 n. 22. Petitioner proposes that Kealy's information be treated as an “additional factor” (*id.*), which is similar to Petitioner's proposal to maintain trust ratings as part of Martin's “additional information.” Pet. 21–22 (citing Ex. 1004 at [0023], Fig. 2. Ex. 1003 ¶67); *see also* Ex. 1003 ¶67 (Dr. Geier's testimony is substantially the same as Petitioner's contentions on pages 21 and 22 of the Petition).

Petitioner's proposal of how to modify Martin and Abramson to use Kealy is not explained in the context of Petitioner's contentions for the independent claims from which the claims at issue here depend. In

particular, Petitioner’s contentions for the independent claims rely on “Abramson’s additional checks of telephone type, signaling protocol, and identifiers in the call attempt message.” *See, e.g.*, Pet. 19, 26–28 (citing, *e.g.*, Ex. 1005 ¶¶ 22, 23, 66–72). Petitioner also presents Mr. Geier’s testimony as follows:

[A] POSITA would have found obvious to modify Abramson to access each characteristic and assign a probabilistic score—if, *e.g.*, only two of three tasks resulted in a “yes.” Under such circumstances, Abramson could advantageously gain greater flexibility in evaluating callers—assigning weight to certain characteristics and determining validity based on a surpassed threshold.

Pet. 28–29 n. 7(citing Ex. 1003 ¶ 86).

We determined that the broadest reasonable interpretation of “source origin confidence metric” is “a metric that represents the credibility of the calling party number or the calling party billing number.” Final Dec. 29. We also determined that the broadest reasonable interpretation of “metric” is “a measurement produced using statistical methods to indicate a probability, which does not encompass a binary (valid or invalid) determination.” *Id.* at 30. As we explained in the First Final Written Decision, we determined the Petition was deficient and did not demonstrate that Martin alone teaches “source origin confidence metric.” *Id.* at 36. Only the combination of Martin and Abramson meets the recitation and we relied on the evidence above.

Claim 8 recites “adjusting . . . the source origin confidence metric based on personal risk factors of an entity associated with the calling party number or billing number.” Claims 9–11 depend from claim 8 and claims 19 and 20 include similar recitations. The recitation “*the* source origin

confidence metric,” derives antecedent bases from the recitation in each of the independent claims discussed above. With respect to the combination of Martin, Abramson, and Kealy, the Petition lacks explanation as to how the teachings would have been combined to meet the requirement that “the source origin confidence metric” is adjusted “based on personal risk factors” as required claims 8–11, 19, and 20. For instance, the Petition does not explain how any information in Kealy, including Kealy’s trust rating, would have been used in a proposed combination to meet the term “metric” in an adjusted “source origin confidence metric.” Also, Kealy’s information to be used in the proposed combination pertains to a calling device. *See, e.g.*, Ex. 1006, 14:13–20, 14:58–15:6. Kealy describes that “a person will still be blacklisted even if he changes his phone number or other identifiers, so long as he maintains the same equipment and therefore the same certificate.” *Id.* at 6:57–60. Kealy’s information does not teach information relating to the credibility of the *calling party number* or the *calling party billing number* and would not meet the broadest reasonable interpretation of “source origin confidence metric.”

Petitioner’s proposal that Kealy’s information be treated as an “additional factor” (Pet. 44 n. 22) does not explain how that factor would be used in adjusting the source origin confidence metric. Petitioner’s proposal is similar to that provided for just the combination of Martin and Kealy, but that proposal is deficient. Martin stores in memory 140 “additional information 330 that may be useful to the monitoring operator 180 or the business operator 190.” Ex. 1004 ¶ 23. Storing Kealy’s trust ratings as “additional information 330” in Martin’s memory 140 does not result in

adjusting the source origin confidence metric in the combined Martin and Abramson system. Each of claims 8 and 19 recites adjusting the “source origin confidence metric.” Merely storing data in memory does not result in an adjustment.

Neither the Petition nor Mr. Geier’s testimony shows why or how a person having ordinary skill in the art would have modified the Martin and Abramson combination with Kealy in the manner recited in claim 8. Each of claims 9 and 10 depends from claim 8 and claim 11 depends from claim 10. Neither the Petition nor Mr. Geier’s testimony provided further contentions for claims 9–11 that remedy the deficiency. Pet. 45–50. Petitioner’s contentions for claims 19 and 20 reference Petitioner’s contentions for claims 8 and 9, respectively. The Petition and Mr. Geier’s testimony are deficient for the same reasons given for claims 8 and 9.

b) Petitioner’s Brief on Remand

In its Brief on Remand, Petitioner repeats some of the same arguments discussed above. *See, e.g.*, Pet. Post Remand Br. 4–5 (“The Petition explained Kealy’s teachings of trust ratings would have been beneficial ‘to further bolster Martin’s [and Abramson’s] incoming call processing system[s]’ and ‘particularly beneficial to Martin’s assessment of VoIP calls,’ and would have ‘reduced costs associated’ with such calls.”), 4 (“All three references teach methods of combating unwanted calls”), 5 (“[A]s explained in the Petition, ‘a POSITA would have been motivated to modify Martin and Abramson to utilize Kealy’s trust rating system, which uses “a metric-related threshold” ([Ex. 1006] at 15:25), as an additional factor for validating

callers.’”) Petitioner’s contentions are deficient for the same reasons given above.

Petitioner also asserts that Patent Owner did not dispute sufficiently Petitioner’s contentions. *See, e.g.*, Pet. Post Remand Br. 5. The petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic*, 815 F.3d at 1363 (citing 35 U.S.C. § 312(a)(3) as “requiring [*inter partes* review] petitions to identify ‘with particularity . . . the evidence that supports the grounds for the challenge to each claim’”); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon). That burden never shifts to the patentee. *Dynamic Drinkware*, 800 F.3d at 1378.

In summary, we are not persuaded by Petitioner’s arguments in its Brief on Remand.

c) Conclusion

Accordingly, based on the complete record now before us, we determine that Petitioner has not shown why or how a person having ordinary skill in the art would have modified the Martin and Abramson combination with Kealy in the manner recited in any of claims 8–11, 19, and 20 of the ’985 Patent.

III. CONCLUSION

The outcome for the challenged claims is set forth in Table 4 of this Decision below.²³ In summary:

Claims Challenged	35 U.S.C.	Reference(s)/ Basis	Claims Shown Unpatent-able	Claims Not shown Unpatent-able
8–11, 19, 20	§ 103(a)	Martin, Kealy		8–11, 19, 20
8–11, 19, 20	§ 103(a)	Martin, Abramson, Kealy		8–11, 19, 20
Overall Outcome				8–11, 19, 20

Table 4 of this Decision summarizes the outcome for each challenged claim and ground in the instant proceeding.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 8–11, 19, and 20 of the '985 Patent have not been proven to be unpatentable; and

²³ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

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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.

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