

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AT&T SERVICES, INC.,
Petitioner,

v.

VOIP-PAL.COM, INC.,
Patent Owner.

Case IPR2017-01383
Patent 9,179,005 B2

Before JOSIAH C. COCKS, JENNIFER MEYER CHAGNON, and
JOHN A. HUDALLA, *Administrative Patent Judges*.

CHAGNON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

AT&T Services, Inc. (“Petitioner”)¹ filed a Petition for *inter partes* review of claims 74–79, 83, 84, 88, 89, 92, 94–96, 98, and 99 (“the challenged claims”) of U.S. Patent No. 9,179,005 B2 (Ex. 1001, “the ’005 patent”). Paper 1 (“Pet.”). Petitioner relies on the Declaration of James Bress (Ex. 1003) to support its positions. Voip-Pal.com, Inc. (“Patent Owner”)² filed a Preliminary Response. Paper 5 (“Prelim. Resp.”).

We have authority to determine whether to institute *inter partes* review. *See* 35 U.S.C. § 314(b); 37 C.F.R. § 42.4(a). Upon consideration of the Petition and the Preliminary Response, and for the reasons explained below, we determine that the information presented does not show a reasonable likelihood that Petitioner would prevail with respect to any of the challenged claims. *See* 35 U.S.C. § 314(a). Accordingly, no trial is instituted.

A. *Related Proceedings*

The parties indicate that the ’005 patent is the subject of the following district court proceedings: *Voip-Pal.com, Inc. v. Verizon Wireless Services, LLC & AT&T Corp.*, Case No. 2:16-cv-00271 (D. Nev.); *Voip-Pal.com, Inc. v. Apple, Inc.*, 2-16-cv-00260 (D. Nev.); and *Voip-Pal.com, Inc. v. Twitter, Inc.*, 2-16-cv-02338 (D. Nev.). Pet. 2; Paper 4, 1.

Petitioner concurrently filed a petition for *inter partes* review of other claims of the ’005 patent. Pet. 2; Paper 4, 1; *AT&T Services, Inc. v.*

¹ Petitioner identifies several additional entities as real parties-in-interest. *See* Pet. 1–2.

² Patent Owner identifies Digifonica (International) Limited as an additional real party-in-interest. Paper 4, 1.

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Voip-Pal.com, Inc., Case IPR2017-01384. Petitioner also filed a petition for *inter partes* review of related U.S. Patent No. 8,542,815 B2 (“the ’815 patent”). Paper 4, 1; *AT&T Services, Inc. v. Voip-Pal.com, Inc.*, Case IPR2017-01382.

The parties also identify the following proceedings, filed by Apple, Inc., to which Petitioner is not a party:

IPR2016-01198, challenging the ’005 patent;
IPR2016-01201, challenging the ’815 patent;
IPR2017-01398, challenging the ’005 patent;
IPR2017-01399, challenging the ’815 patent.

Pet. 3; Paper 4, 1.

B. The ’005 Patent

The ’005 patent is titled “Producing Routing Messages for Voice Over IP Communications.” Ex. 1001, at [54]. In particular, the ’005 patent relates to producing a routing message for routing calls in a communication system, where the routing message is based on call classification criteria that are used to classify a particular call as a public network call or a private network call. Ex. 1001, at [57]. Figure 7 of the ’005 patent is reproduced below.

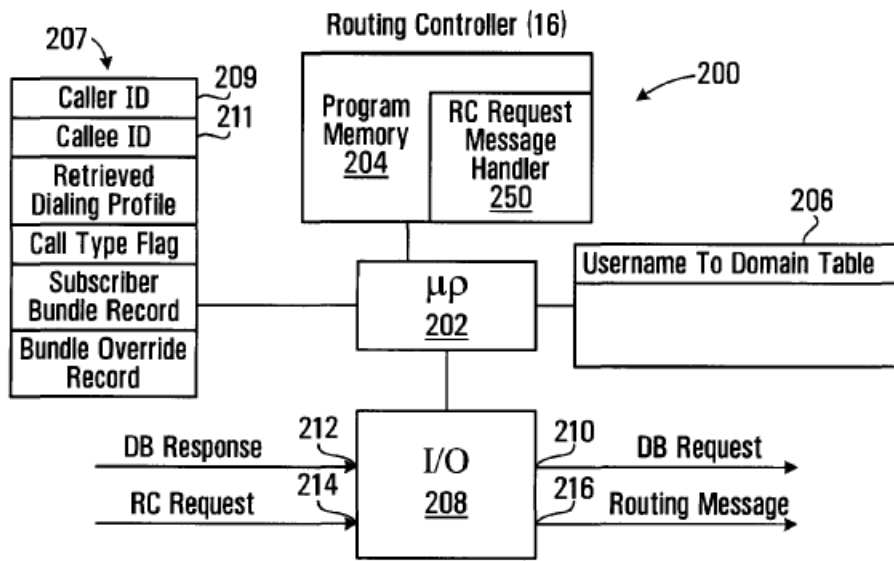


FIG. 7

Figure 7, reproduced above, illustrates routing controller (RC) 16, which facilitates communication between callers and callees. *Id.* at 14:32–33, 17:26–27. RC processor circuit 200 of routing controller (RC) 16 includes processor 202, program memory 204, table memory 206, buffer memory 207, and I/O port 208. *Id.* at 17:27–31. Routing controller 16 queries database 18 (shown in Figure 1) to produce a routing message to connect caller and callee. *Id.* at 14:18–25, 14:32–42. Program memory 204 includes blocks of code for directing processor 202 to carry out various functions of routing controller 16. *Id.* at 17:47–49. One such block of code is RC request message handler 250, which directs routing controller 16 to produce a routing message in response to an RC request message. *Id.* at 17:49–53.

the callee identifier. *Id.* at 19:53–57. Blocks 257, 380, 390, 396, 402 “establish call classification criteria for classifying the call as a public network call or a private network call” based on, for example, “whether the callee identifier has certain features such as an international dialing digit, a national dialing digit, an area code[,] and a length that meet certain criteria.” *Id.* at 22:46–48, 22:58–61. After blocks 257, 380, 390, 396, processor 202 “reformat[s] the callee identifier . . . into a predetermined target format,” which enables block 269 to classify the call as public or private, depending on whether the callee is a subscriber to the system. *Id.* at 22:49–54, 22:61–23:19, 20:23–35; *see also id.* at 18:63–19:30 (describing callee profiles). Similarly, block 402 “directs the processor 202 of FIG. 7 to classify the call as a private network call when the callee identifier complies with a predefined format, i.e. is a valid user name and identifies a subscriber to the private network.” *Id.* at 22:64–23:3.

C. Illustrative Claim

Of the challenged claims, claims 74, 94, and 99 are independent. Claims 75–79, 83, 84, 88, 89, and 92 depend from claim 74, and claims 95, 96, and 98 depend from claim 94. Independent claim 74 of the '005 patent is reproduced below, and is illustrative of the challenged claims.

74. A method of routing communications in a packet switched network in which a first participant identifier is associated with a first participant and a second participant identifier is associated with a second participant in a communication, the method comprising:

after the first participant has accessed the packet switched network to initiate the communication, using the first participant identifier to locate a first participant profile comprising a plurality of attributes associated with the first participant;

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a first network classification criterion, producing a first network routing message for receipt by a controller, the first network routing message identifying an address in a first portion of the packet switched network, the address being associated with the second participant, the first portion being controlled by an entity; and

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a second network classification criterion, producing a second network routing message for receipt by the controller, the second network routing message identifying an address in a second portion of the packet switched network, the second portion not controlled by the entity.

Ex. 1001, 43:41–65.

D. The Applied References

Petitioner relies on the following references in the asserted grounds.

Pet. 4.

Reference	Date	Exhibit
U.S. Patent No. 6,240,449 B1 ("Nadeau")	May 29, 2001	Ex. 1005
U.S. Appl. Pub. No. 2004/0218748 A1 ("Fisher")	Nov. 4, 2004	Ex. 1006
U.S. Patent No. 6,594,254 B1 ("Kelly")	July 15, 2003	Ex. 1007
U.S. Patent No. 6,674,850 B2 ("Vu")	Jan. 6, 2004	Ex. 1008

E. The Asserted Grounds

Petitioner sets forth its challenges to claims 74–79, 83, 84, 88, 89, 92, 94–96, 98, and 99 as follows. Pet. 4.

References	Basis	Claims Challenged
Fisher and Vu	§ 103	74–79, 83, 84, 88, 89, 92, 94–96, 98, 99
Nadeau and Kelly	§ 103	74–79, 83, 84, 88, 89, 92, 94–96, 98, 99

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard). Under the broadest reasonable construction standard, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). The claims, however, “should always be read in light of the specification and teachings in the underlying patent,” and “[e]ven under the broadest reasonable interpretation, the Board’s construction ‘cannot be divorced from the specification and the record evidence.’” *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (citations omitted) (*overruled on other grounds by Aqua Prods. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017)). Further, any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d

1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, however, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Petitioner “interprets all . . . claim terms . . . in accordance with their plain and ordinary meaning under the [broadest reasonable interpretation] for purposes of this proceeding.” Pet. 14. Patent Owner does not propose express construction of any claim term. *See generally* Prelim. Resp. Upon review of the parties’ contentions and supporting evidence, for purposes of this Decision, we need not provide express construction for any claim term. *See, e.g., Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (“[C]laim terms need only be construed ‘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)).

B. Principles of Law

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented 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. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of

nonobviousness.³ *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We analyze the asserted grounds of unpatentability in accordance with these principles.

C. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art would have “at least a bachelor’s degree in electrical engineering, or a related field, with at least 2–4 years of industry experience in designing or developing packet-based and circuit-switched systems. More or less industry experience or technical training may offset more or less formal education or advanced degrees.” Pet. 13 (citing Ex. 1003 ¶¶ 52–53). Patent Owner does not propose an alternative level of ordinary skill in the art. *See generally* Prelim. Resp. For purposes of this Decision, we adopt Petitioner’s proposal regarding the level of ordinary skill in the art. The level of ordinary skill in the art further is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

D. The Asserted Prior Art

1. Nadeau (Ex. 1005)

Nadeau relates to telephony systems that “provide subscribers with communication sessions across a variety of network domains, such as the

³ The parties have not directed our attention to any objective evidence of non-obviousness.

Public Switched Telephone Network (PSTN), the Mobile network and the Internet.” Ex. 1005, 1:7–12. Figure 1 of Nadeau is reproduced below.

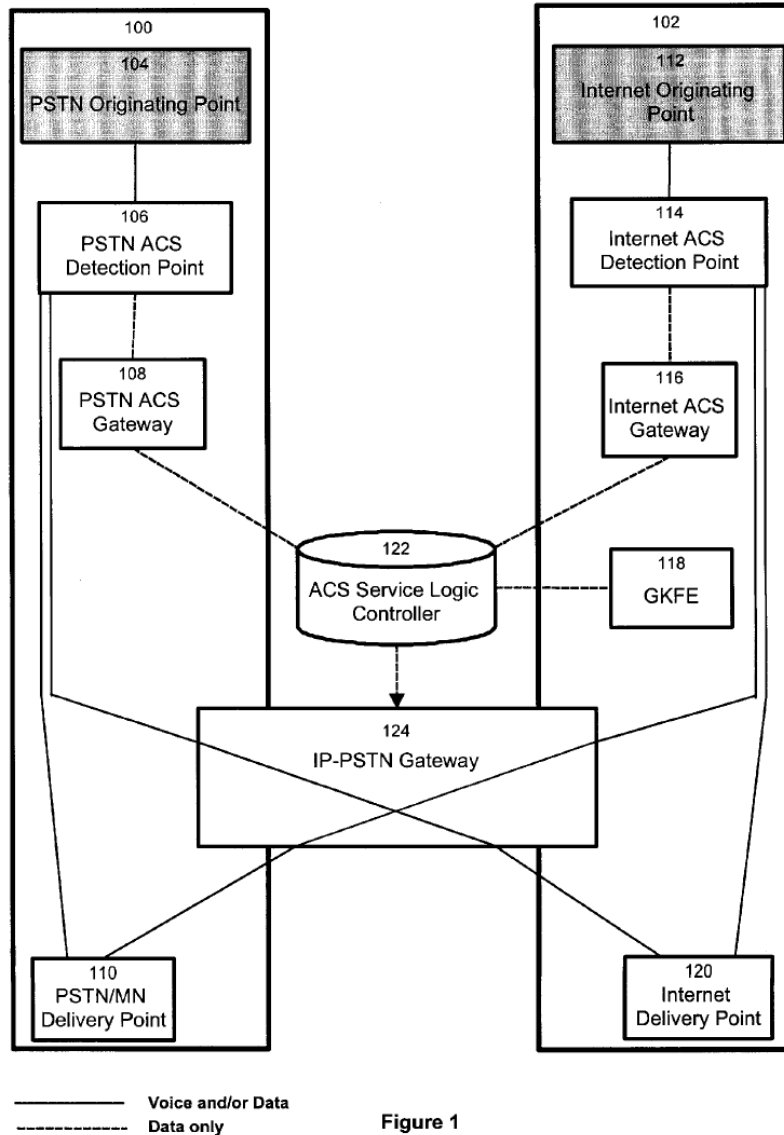


Figure 1, reproduced above, “is a block diagram of a multi-domain communication session disposition system incorporating an Automatic Call Setup [ACS] service.” *Id.* at 6:1–3. Each of PSTN network domain 100 and Internet domain 102 “issue[s] and receive[s] communications that can be telephone related messages or data.” *Id.* at 6:47–54. ACS subscribers may originate calls through either PSTN Originating Point Functional Element

(OPFE) 104 (e.g., a phone in the PSTN network) or Internet OPFE 112 (e.g., a multimedia PC). *Id.* at 6:58–65. PSTN Detection Point Functional Element (DPFE) 106 and Internet DPFE 114 are each responsible for identifying call requests that require ACS treatment. *Id.* at 6:59–7:1. Internet DPFE 114 is a voice over Internet Protocol (VoIP) client. *Id.* at 12:39. If ACS treatment is needed in the PSTN domain, PSTN DPFE 106 will suspend call processing and originate a request for instructions to Service Logic Controller (SLC) 122 via PSTN Gateway Functional Element (GWFE) 108, which is responsible for “mediat[ing] the instruction requests/responses from/to the DPFE to/from the SLC.” *Id.* at 7:1–5, 7:13–15. Internet GWFE 116 performs the same function in the Internet domain and likewise links Internet DPFE 114 with SLC 122. *Id.* at 7:15–19, Fig. 1.

SLC 122 is a server that “includes a memory for storage of program elements [for] implementing different functions necessary to the disposition of communication sessions.” *Id.* at 7:31–34. SLC 122 also includes a central processing unit and mass storage unit holding a Subscriber Database. *Id.* at 7:34–37. SLC 122 provides call processing instructions to DPFEs 106, 114. *Id.* at 7:22–23. Call processing instructions are determined by consulting the Subscriber Database for a particular caller’s service profile, which includes a list of conditions and events to be used to process that caller’s incoming calls. *Id.* at 7:22–27, 7:36–40. SLC 122 further is coupled to Gatekeeper Functional Element (GKFE) 118 in the Internet domain for mapping pseudo-addresses into IP addresses. *Id.* at 4:6–42, 7:41–8:6.

When a call originating from one domain terminates on the other domain, the ACS system forwards the call to PSTN/IP gateway 124 for proper bridging. *Id.* at 11:29–31. Information on how to complete the call

telephones associated with CPE 124. *Id.* ¶ 24. CPE 124 also is coupled to PTSN 112 via gateway 126 and to Internet 106 and Corporate Intranet 140 via gateway 132. *Id.* ¶ 23.

CPEDRE 128 uses “routing rules and associated routing paths” (e.g., Table 1) to route a telephone call one of PTSN 112, Internet 106, and Corporate Intranet 140. *Id.* ¶¶ 23, 29. Different CPEs may have different routing rules (*id.* ¶ 34), based on for example, reducing calling costs for the company, enhancing reliability of calls, or reducing calling costs for the service provider (*id.* ¶ 33). A “customer can often select one of a variety of calling plans, each usually having a different cost structure,” such as free long distance calls. *Id.* ¶ 35. As noted, the routing rules used by CPEDRE 128 may be based on the calling plan selected by the customer. *See id.* ¶¶ 29–36, 44–45.

Table 1 of Fisher is reproduced below.

TABLE 1

Telephone Number Characteristics	Telephone Call Categories	Routing Selections
A	local PSTN destination	PSTN
B	local toll PSTN destination	PSTN
C	long distance PSTN destination	PSTN
D	international PSTN destination	PSTN
E	local VoIP destination	VoIP
F	local toll VoIP destination	VoIP
G	long distance VoIP destination	VoIP
H	international VoIP destination	VoIP
I	intra-site destination	VoIP
J	local intra-company PSTN destination	PSTN
K	local toll intra-company PSTN destination	PSTN
L	long distance intra-company PSTN destination	PSTN
M	international intra-company PSTN destination	PSTN
N	local intra-company VoIP destination	VoIP
O	local toll intra-company VoIP destination	VoIP
P	long distance intra-company VoIP	VoIP

TABLE 1-continued

Telephone Number Characteristics	Telephone Call Categories	Routing Selections
	destination	
Q	international intra-company VoIP destination	VoIP
R	local partner PSTN destination	PSTN
S	local toll partner PSTN destination	PSTN
T	long distance partner PSTN destination	PSTN
U	long distance partner PSTN destination	PSTN
V	international partner PSTN destination	PSTN
W	local partner VoIP destination	VoIP
X	local toll partner VoIP destination	VoIP
Y	long distance partner VoIP destination	VoIP
Z	international partner VoIP destination	VoIP

Table 1, reproduced above, shows exemplary routing rules, including e.g., telephone number characteristics, telephone calls categories, and routing selections. *Id.* ¶¶ 29–31, 41. When CPEDRE 128 (202 in Fig. 2) receives a call from interface 130, 134, 136, the digits of the called telephone number are compared to telephone number characteristics to identify a match. *Id.* ¶ 42; *see also id.* Fig. 4 (illustrating the matching process). If a match is found, the call is routed “to a selected one of the PSTN gateway 126 and the VoIP gateway 132 for transmission to the PSTN or the Internet accordingly.” *Id.*

3. *Kelly (Ex. 1007)*

Kelly relates to “a technique for enabling communication connections between circuit-switched communication networks and packet-switched data processing networks.” Ex. 1007, 1:59–63. The technique “enables traditional telephone numbers formatted as domain names to be resolved into network protocol addresses.” *Id.* at 3:45–47. Figure 6 of Kelly is reproduced below.

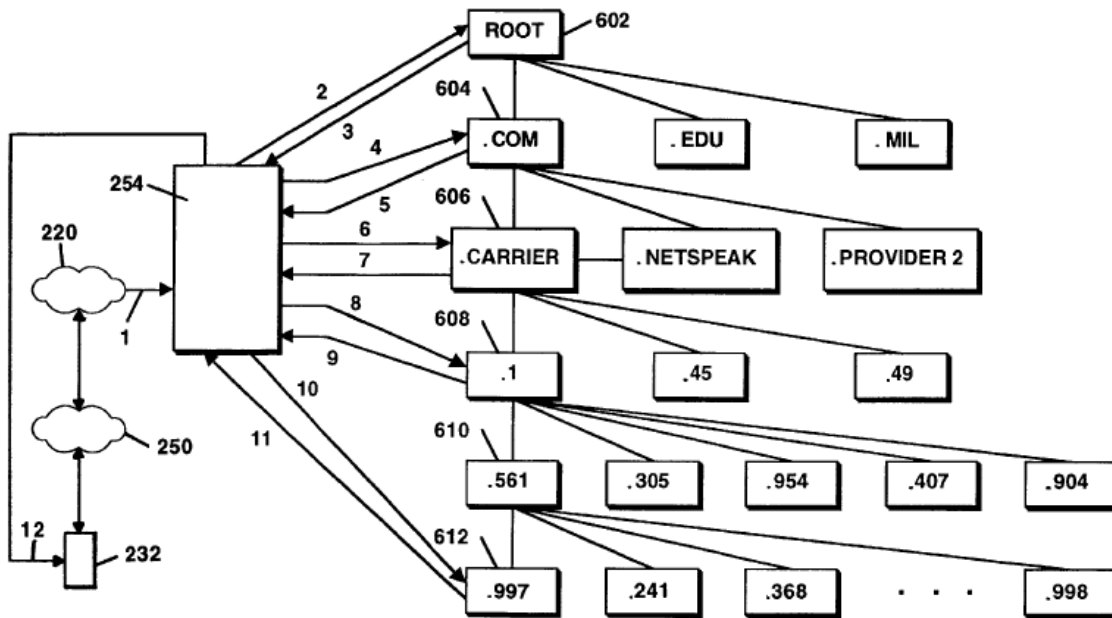


Figure 6

Figure 6, reproduced above, shows the steps used to resolve a telephone number to a network address of a gateway. *Id.* at 4:65–67. Upon receiving a traditional telephone number (e.g., “1-561-997-4001”) from a user, Internet telephone/WebPhone client 232 “reverses the number and appends the carrier’s domain name[,] resulting in a hybrid telephone/domain name having the form ‘4001-997-561-1.carrier.com.’” *Id.* at 6:58–67, 11:50–12:14. With reference to Figure 6, Kelly describes “a recursive process of resolving the telephone number domain name previously entered into the WebPhone client to the appropriate IP address of a gateway on a PSTN”:

In step 1, the WebPhone client 232 forwards the telephone number domain name to primary name server 254 in packetized form via Internet 220 and ISP 250. Using a name packet, primary name server 254 queries the root name server of the domain name system (DNS) for the address of “4001.997.561.1.carrier.com” in step 2. The name server for the DNS root returns a reference to the name server for “.com” in step 3. Next, name server 254 queries the referenced name server

“.com” for the address of “4001.997.561.1.carrier.com” in step 4. In response, a referral to “carrier.com” is returned in step 5. Name server 254 then queries the name server “carrier.com” for “4001.997.561.1.carrier.com” in step 6. In response, a referral to “1.carrier.com” is returned in step 7. Name server 254 then queries the name server to “1.carrier.com,” for “4001.997.561.1.carrier.com” in step 8. In response a reference of “561.1.carrier.com”, is returned in step 9. Name server 254 then queries name server for “561.1.carrier.com,” in step 10 for “4001.997.561.1.carrier.com.” In response, a reference to “997.561.1.carrier.com” is returned in step 11. This last reference contains the IP address of the desired gateway which is then forwarded via Internet 220 and ISP 250 to WebPhone client 232 by name server 254 in step 12.

Id. at 12:32–57.

After step 12 of the telephone number domain name resolution process of Figure 6, “the call packet containing the entire telephone number domain name entry ‘4001.997.561.1.carrier.com’ is then sent to initiate a call session to the IP address of the gateway . . . , and the call is offered.” *Id.* at 13:22–26.

4. *Vu (Ex. 1008)*

Vu relates to “telecommunication switching systems, and in particular, to a unified access switch digit translation system for providing digit translation and call routing in a telecommunication system.” *Ex. 1008*, 1:6–9. As described in *Vu*, a unified access switch would allow “various services to be switched to numerous other disparate networks.” *Id.* at 1:61–2:6. The digit translation system of *Vu* provides “an optimal digit translation and call processing system . . . that reduces the size of the [lookup] tables required for performing digit translation.” *Id.* at 2:21–24.

Vu teaches a “database of subscriber profiles . . . maintained within the unified access switch 10” (*see* Fig. 1), the database defining various services subscribed to by the subscribers. *Id.* at 3:36–39. Such services may include, for example, high bandwidth internet, voice services including local and long distance calling, cable television services, etc. *See id.* at 1:13–40. Unified access switch 10 uses the information in the database to “define appropriate routing procedures for respective call termination types and may be associated with voice as well as data services calls.” *Id.* at 3:39–41. When a call is made, the system uses the subscriber profile of the subscriber from which the call originates to determine, for example, whether the calling party is allowed to perform the type of call being placed, or whether the subscriber subscribes to any special routing services. *See id.* at 4:19–39, 6:41–55.

E. Obviousness in View of Fisher and Vu

Petitioner asserts that claims 74–79, 83, 84, 88, 89, 92, 94–96, 98, and 99 are unpatentable under 35 U.S.C. § 103(a) as obvious in view of Fisher and Vu. Pet. 14–54. Patent Owner disagrees. Prelim. Resp. 7–32. We have reviewed the parties’ contentions and supporting evidence. Given the evidence on this record, and for the reasons explained below, we determine that the information presented does not show a reasonable likelihood that Petitioner would prevail on this asserted ground.

1. Independent Claim 74

a. Petitioner’s Contentions

According to Petitioner, “[t]o the extent the preamble is limiting, *Fisher-Vu* teaches it.” Pet. 19; *see also id.* at 16–18 (claim chart regarding

claim 74 preamble). In particular, Petitioner points to CPEDRE 128/202 of Fisher, asserting that the CPEDRE “routes calls through an IP network, such as the Internet or corporate intranet (routing communications in a packet switched network).” *Id.* at 19 (citing Ex. 1006 ¶ 42). Petitioner also relies on Fisher’s caller, callee, and a called telephone number, respectively, as teaching the claimed “first participant,” “second participant,” and “second participant identifier.” *Id.* (citing 1006 ¶¶ 24, 43). Petitioner acknowledges that the combination does not explicitly disclose a caller identifier (i.e., a “first participant identifier”), but argues that a person of ordinary skill in the art would understand that there would be such an identifier, at least in the IP address of an IP telephone from which the caller places a call. *Id.* (citing Ex. 1003 ¶¶ 92–94, 207–209); *see also id.* at 19–20 (citing Ex. 1006 ¶¶ 23, 29; Ex. 1008, 4:21–30; Ex. 1003 ¶¶ 207–208) (identifying additional purported reasons a “first participant identifier” would have been obvious in view of the asserted combination).

Regarding the claim 74 step of “using the first participant identifier to locate a first participant profile comprising a plurality of attributes associated with the first participant,” Petitioner asserts that Fisher’s “CPEDRE, modified by the teachings of *Vu* . . . , locates caller-specific routing rules in the configuration manager.” *Id.* at 24 (citing Ex. 1006 ¶¶ 23, 29; Ex. 1008, 4:21–30). Petitioner further contends that the “routing rules map telephone number characteristics to call categories and routing selections,” purportedly teaching “calling attributes associated with the caller.” *Id.* (citing Ex. 1006 ¶¶ 30–31; Ex. 1003 ¶ 213). Relying on testimony from Mr. Bress, Petitioner contends that “[a]lthough *Fisher-Vu* does not explicitly disclose that the CPEDRE uses the caller identifier to

locate the caller-specific routing rules, a [person of ordinary skill in the art] would understand that for the system to function, the caller-specific routing rules must be retrieved using a caller identifier,” because “if an identifier for the caller was not used, then it would not be possible to discern which set of caller-specific routing rules should be retrieved and referenced when a caller initiates a call.” *Id.* (citing Ex. 1003 ¶ 215). For the claim 74 requirement that this locating a first participant profile occurs “after the first participant has accessed the packet switched network to initiate the communication,” Petitioner asserts that a caller initiates the call using an IP phone, and that a person of ordinary skill in the art “would understand that the IP phone accesses the CPEDRE through an IP connection that forms part of the packet switched network.” *Id.* at 23 (citing Ex. 1006 ¶¶ 24, 43; Ex. 1003 ¶ 212).

Claim 74 further recites:

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a first network classification criterion, producing a first network routing message for receipt by a controller, the first network routing message identifying an address in a first portion of the packet switched network, the address being associated with the second participant, the first portion being controlled by an entity.

According to Petitioner, the “CPEDRE compares portions of a called telephone number (portion of a second participant identifier) with telephone number characteristics (first participant attributes), such as area codes and country codes, in the routing rules to determine a match.” Pet. 30 (citing Ex. 1006 ¶¶ 40, 42, 48). Petitioner contends that the CPEDRE determines whether to route to a VoIP Gateway based on the routing selection for the matched telephone number characteristic. *Id.* (citing Ex. 1006 ¶¶ 42, 47, 51). For teaching the claimed “meet[ing] a first network classification

criteria,” Petitioner relies on one of the use cases shown in Fisher’s Table 1—characteristic “N” categorized as a “local intra-company VoIP destination”—asserting that a person of ordinary skill in the art “would understand that such a call would be completed within the company over an IP network, such as the corporate intranet.” *Id.* at 30–31 (citing Ex. 1006 ¶¶ 23, 31, Table 1; Ex. 1003 ¶ 221).

For the claimed “producing a first network routing message” that “identif[ies] an address in a first portion of the packet switched network, the address being associated with the second participant,” Petitioner contends Fisher’s “CPEDRE routes calls to the VoIP gateway (controller) according to the routing rules.” *Id.* at 31 (citing Ex. 1006 ¶ 40; Ex. 1003 ¶¶ 222–223). Petitioner contends that Fisher’s “CPEDRE provides the entire routing path (first network routing message) . . . , which would include an address associated with the callee (second participant).” *Id.* at 31–32 (citing Ex. 1006 ¶ 47; Ex. 1003 ¶¶ 225–226). For teaching the claimed “the first portion being controlled by an entity,” Petitioner asserts that a person of ordinary skill in the art “understood that the corporate intranet is controlled by a company (entity) that utilizes the corporate intranet.” *Id.* at 32 (citing Ex. 1003 ¶ 227).

Claim 74 further recites:

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a second network classification criterion, producing a second network routing message for receipt by the controller, the second network routing message identifying an address in a second portion of the packet switched network, the second portion not controlled by the entity.

As discussed above, Petitioner contends that the CPEDRE compares portions of a called telephone number with phone number characteristics in the routing rules to determine a match. *See* Pet. 34 (referring back to the earlier discussion in the Petition). For teaching the claimed “meet[ing] a second network classification criterion,” Petitioner relies on other use cases shown in Fisher’s Table 1—characteristic “W” categorized as a “local partner VoIP destination” and characteristic “Z” categorized as an “international partner VoIP destination”—and asserts that a person of ordinary skill in the art “would understand such a call would be completed outside the company to a third party ‘partner’ IP network, which may be reachable over the Internet via an ISP (a ‘second network’).” *Id.* at 34–35 (citing Ex. 1006 ¶¶ 23, 31, Table 1; Ex. 1003 ¶¶ 233–234).

For the claimed “producing a second network routing message” that “identif[ies] an address in a second portion of the packet switched network,” Petitioner again relies on Fisher’s CPEDRE providing the “entire routing path,” including the address on the local partner VoIP network or the international partner VoIP network. *Id.* at 35–36 (citing Ex. 1006 ¶ 47; Ex. 1003 ¶ 233). For teaching the claimed “the second portion not [being] controlled by the entity,” Petitioner asserts that a person of ordinary skill in the art “understood that the partner VoIP networks are controlled by partners, and not the company (entity) that utilizes and controls the corporate intranet.” *Id.* at 36 (citing Ex. 1003 ¶ 233).

Regarding combining the asserted references, Petitioner contends Fisher and Vu are from the same field of endeavor and are both concerned with routing VoIP calls. Pet. 14 (citing Ex. 1006 ¶¶ 4, 8; Ex. 1008, 1:54–2:6, 10:16–11:6). Petitioner further contends that a person of ordinary skill

in the art “would have considered *Vu* when implementing or improving *Fisher*.” *Id.* (citing Ex. 1003 ¶ 194). Petitioner notes that *Fisher*’s CPEDRE may route calls based on routing rules that reduce the cost of making calls, but recognizes that *Fisher* “does not disclose that the routing rules are caller-specific.” *Id.* (citing Ex. 1006 ¶¶ 8, 33). Instead, in *Fisher*, “all callers who use the CPE are subject to the same set of routing rules.” *Id.* (citing Ex. 1006 ¶ 29). Petitioner argues that “[a]s a result, the routing rules may not reduce the cost of making calls for a user, especially if that user has a different calling plan or cost structure than the one used to generate the routing rules.” *Id.* at 14–15 (citing Ex. 1006 ¶ 35). Petitioner contends that *Vu* “teaches a unified access switch that maintains a database of caller-specific subscriber profiles,” which “define ‘appropriate routing procedures for respective call termination types.’” *Id.* at 15 (citing Ex. 1008, 3:36–41, 4:25–28). In light of this, Petitioner contends a person of ordinary skill in the art “would [have been] motivated to modify the routing rules of *Fisher* to be caller-specific like the subscriber profiles of *Vu* to reduce the cost of making calls.” *Id.* (citing Ex. 1003 ¶¶ 200–206).

b. Patent Owner’s Arguments

Regarding Petitioner’s proposed modification of *Fisher* with *Vu*, Patent Owner contends that Petitioner “rel[ies] on a false characterization of *Fisher* teaching different callers of the CPE have different calling plans with different cost structures.” Prelim. Resp. 28 (citing Pet. 14–15 (citing Ex. 1006 ¶ 35; Ex. 1003 ¶ 203)). In particular, Patent Owner contends that *Fisher* instead “discloses a single calling plan that applies to all callers using a CPE.” *Id.* (citing Ex. 1006 ¶ 35). According to Patent Owner, *Fisher*’s “customer” is “an enterprise customer or company that owns and controls

the CPE” and not an individual caller. *Id.* at 29. Patent Owner asserts that paragraph 35 of Fisher, upon which Petitioner relies, “discloses that an enterprise customer at a particular location selects one of a variety of calling plans . . . to be used with the CPE that the enterprise customer owns and controls.” *Id.* (citing Ex. 1006 ¶¶ 34–35). Thus, according to Patent Owner, “for a given CPE, Fisher discloses a single calling plan and all callers using the CPE would be charged according to their company’s calling plan. Fisher does not disclose or suggest providing any different calling plans for different callers accessing a single CPE.” *Id.* at 29–30.

Patent Owner further contends that, because “all callers using the CPE [of Fisher] incur costs under the same calling plan,” “the lowest cost choice of a routing selection (e.g. VoIP or PSTN) for a given call is independent of the particular caller’s identity and so modifying the routing rules of Fisher to be caller-specific would not reduce routing costs.” *Id.* at 28. Thus, Patent Owner argues “there would be no motivation to combine Fisher with any reference to provide caller-specific routing rules” based on reducing the cost of making calls. *Id.* at 30–31.

c. Analysis

Petitioner’s Rationale for Combining Vu with Fisher is Insufficient

We agree with Patent Owner that Petitioner’s stated rationale for combining the references is insufficient. In particular, we agree with Patent Owner that “the teachings of Fisher undermine the Petitioner’s argument that there is a motivation to modify Fisher to have caller-specific routing rules, and it is only through Petitioner’s misunderstanding of Fisher that Petitioner has been able to make an allegation that there would be a motivation to modify Fisher in this way.” Prelim. Resp. 30–31.

Petitioner's sole reason for adding caller-specific routing rules to Fisher is that "the routing rules [of Fisher] may not reduce the cost of making calls for a user, especially if that user has a different calling plan or cost structure than the one used to generate the routing rules." Pet. 14–15 (citing Ex. 1006 ¶ 35). However, Petitioner's assertion that individual callers in Fisher could or would have different calling plans than that used by the CPE is not supported by the disclosure of Fisher. Although a *company* "can often select one of a variety of calling plans" from a service provider (Ex. 1006 ¶¶ 35, 58), Fisher does not suggest that *each individual caller* from within the customer company may select his or her own distinct calling plan; instead each caller within the company operates under the plan selected by the customer company. In other words, a company (i.e., customer) chooses a calling plan, based upon which all calls originating through the CPE will be routed. This determination is consistent with the system shown in Figure 1 of Fisher, in which CPE 124, operated and controlled by the company, manages all calls from the individual callers (i.e., the arrows shown at the bottom of Figure 1, "From Analog Telephones," "From IP Telephones," etc.). *See* Ex. 1006 ¶¶ 24, 46; Ex. 1003 ¶ 248 (the company owns and controls the CPE).

Missing from Petitioner's contentions is any reason why a person of ordinary skill in the art would consider different calling plans or cost structures for individual callers in Fisher's system when the company controls the CPE through which the caller's calls are routed. To the extent Petitioner relies on Vu as teaching that calls managed by Fisher's CPE could be made by users having different calling plans, this combination is not apt. In Vu, the "subscriber profiles" correspond to the many customers serviced

by a service provider, and “define [the] services subscribed to by [each] subscriber[.]” (e.g., the customer’s calling plan). *See, e.g.*, Ex. 1008, 3:36–39. Thus, the company controlling Fisher’s CPE would more accurately correlate to a single subscriber in Vu. Nothing in Vu, however, suggests that individual calls originating from a single subscriber would be subject to different subscription services or calling plans. Petitioner’s position is not grounded in what a person of ordinary skill in the art would have gleaned from the teachings of the prior art, and is instead an impermissible exercise of hindsight with the claims of the ’005 patent serving as a guide. Such a position is not appropriate for a conclusion of obviousness. *See Otsuka Pharm. Co., Ltd. v. Sandoz, Inc.*, 678 F.3d 1280, 1296 (Fed. Cir. 2012) (“The inventor’s own path itself never leads to a conclusion of obviousness; that is hindsight.”).

On this record, we do not agree that a skilled artisan would have regarded Fisher as providing any suggestion that “the routing rules may not reduce the cost of making calls for a user, especially if that user has a different calling plan or cost structure than the one used to generate the routing rules,” as asserted by Petitioner. Pet. 14–15. Thus, we do not agree that one of ordinary skill in the art would have been motivated “to modify the routing rules of *Fisher* to be caller-specific . . . to reduce the cost of making calls” (*id.* at 15). Accordingly, we determine that Petitioner has not articulated persuasive reasoning with a rational underpinning for combining the teachings of Fisher and Vu. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

d. Conclusion Regarding Claim 74

For the reasons above, Petitioner has not established a reasonable likelihood that it would prevail in showing claim 74 would have been obvious over the combination of Fisher and Vu.

2. Claims 75–79, 83, 84, 88, 89, 92, 94–96, 98, and 99

For each of the other claims at issue, Petitioner also relies on the same rationale for combining Fisher and Vu. *See* Pet. 14–15. Therefore, for the same reasons discussed with respect to claim 74, Petitioner has not established a reasonable likelihood that it would prevail in showing claims 75–79, 83, 84, 88, 89, 92, 94–96, 98, and 99 would have been obvious over the combination of Fisher and Vu.

F. Obviousness in View of Nadeau and Kelly

Petitioner asserts that claims 74–79, 83, 84, 88, 89, 92, 94–96, 98, and 99 are unpatentable under 35 U.S.C. § 103(a) as obvious in view of Nadeau and Kelly. Pet. 54–85. Patent Owner disagrees. Prelim. Resp. 32–64. We have reviewed the parties’ contentions and supporting evidence. Given the evidence on this record, and for the reasons explained below, we determine that the information presented does not show a reasonable likelihood that Petitioner would prevail on this asserted ground.

1. Independent Claim 74

a. Petitioner’s Contentions

According to Petitioner, “[t]o the extent the preamble is limiting, *Nadeau-Kelly* teaches it.” Pet. 58; *see also id.* at 57–58 (claim chart regarding claim 74 preamble). In particular, Petitioner points to the SLC of

Nadeau, asserting that the SLC “routes a call (communication) through a packet switched network, such as an IP network.” *Id.* at 58–59 (citing Ex. 1005, 6:15–23, 7:5–9, 7:22–23; Ex. 1003 ¶¶ 274–278). Petitioner also relies on Nadeau’s caller, the caller’s “home phone number,” callee, and “the name of the person to reach,” respectively, as teaching the claimed “first participant,” “first participant identifier,” “second participant,” and “second participant identifier.” *Id.* at 59 (citing Ex. 1005, 12:34–38, 12:42–47); *see also id.* (citing Ex. 1005, 9:55–64, 10:2–5, 11:13–15; Ex. 1003 ¶ 276) (identifying additional caller and callee “identifiers” taught in Nadeau).

Regarding the claim 74 step of “using the first participant identifier to locate a first participant profile comprising a plurality of attributes associated with the first participant,” Petitioner asserts that Nadeau’s “SLC ‘consults [the] particular caller’s service profile’ to process the call (locate a first participant profile). . . . The profile includes a caller’s home telephone number (first participant identifier).” *Id.* at 61–62 (citing Ex. 1005, 7:24–27, 7:34–40, 7:56–65, 9:55–64). Petitioner further contends that the “SLC locates the caller’s profile using the caller’s home telephone number, because the caller’s telephone number in the profile is used to ‘automatically associate calls made to the service from the subscriber’s main directory number.’” *Id.* at 62 (citing Ex. 1005, 9:61–64). Petitioner also relies on Nadeau’s teaching that the “profile includes a directory containing entries for each person that the caller might wish to call.” *Id.* (citing Ex. 1005, 9:18–23, 9:66–67). According to Petitioner, “[e]ach directory entry includes a name or telephone number for a party specified by a caller (attribute associated with the first participant) and routing information

specified by the caller that indicates how calls to that party should be routed (attribute associated with the first participant).” *Id.* (citing Ex. 1005, 3:56–4:6, 9:66–10:20, 12:48–52; Ex. 1003 ¶¶ 284–285). For the claim 74 requirement that this locating a first participant profile occurs “after the first participant has accessed the packet switched network to initiate the communication,” Petitioner asserts that a caller connects to the Internet and starts a VoIP client to connect to the SLC, providing the name of the called party to initiate a call. Pet. 61 (citing Ex. 1005, 12:34–35, 12:42–47).

Claim 74 further recites:

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a first network classification criterion, producing a first network routing message for receipt by a controller, the first network routing message identifying an address in a first portion of the packet switched network, the address being associated with the second participant, the first portion being controlled by an entity.

According to Petitioner, the “SLC uses a callee’s name . . . (second participant identifier) to locate a directory entry for the callee in the caller’s profile by matching the callee’s name against the name indicated in the corresponding directory entry for the callee (first participant attributes).” Pet. 65 (citing Ex. 1005, 4:3–6, 10:1–2, 11:13–15, 12:42–52). Petitioner contends that the SLC determines whether to route the call over the PSTN or an IP network based on the routing information in the matched directory entry. *Id.* at 65–66 (citing Ex. 1005, 7:24–37, 10:8–20, 11:27–30).

For teaching the claimed “meet[ing] a first network classification criteria,” Petitioner relies on Nadeau’s teachings with respect to routing a call over an IP network based on an available IP address for the callee or

when a Quality of Service bypass flag is set. *Id.* at 66 (citing Ex. 1005, 10:12, 10:19–20; Ex. 1003 ¶¶ 289–290).

For the claimed “producing a first network routing message,” Petitioner contends Nadeau’s SLC “generates and sends ‘routing instructions’ (first network routing message) to a detection point (‘DPFE’) and/or Internet ACS Gateway (collectively, a controller).” *Id.* (citing Ex. 1005, 7:22–23, 12:55–61; Ex. 1003 ¶¶ 291–294). Petitioner explains “the routing instructions direct the DPFE to route the call to an IP address of the callee (address in the first portion of the packet switched network, the address being associated with the second participant).” *Id.* (citing Ex. 1005, 12:55–61). Regarding the claim requirement that the routing message “identif[ies] an address in a first portion of the packet switched network, the address being associated with the second participant,” Petitioner acknowledges that Nadeau “does not explicitly disclose that the routing instructions identify the callee’s IP address,” but contends this would have been obvious based on Nadeau’s teachings that the network is an IP network and that the “SLC returns ‘a message indicating to route the call to the IP address retrieved from the Internet domain’ . . . , which is the IP address of the callee.” *Id.* at 66–67 (quoting Ex. 1005, 12:55–61; citing Ex. 1005, 11:27; Ex. 1003 ¶¶ 295–297) (emphasis omitted). Petitioner explains that a person of ordinary skill in the art would have known that an IP address is used to route calls in an IP network. *Id.* at 67 (citing Ex. 1003 ¶¶ 295–297).

Petitioner further contends that, in light of Kelly, a person of ordinary skill in the art would have known to modify the programming of Nadeau’s SLC so that the callee’s IP address was included in the routing instructions. *Id.* (citing Ex. 1007, 7:56–8:1; Ex. 1003 ¶¶ 298–301). Petitioner

characterizes this modification as being a known technique yielding predictable results that “allows a call to be routed to the callee’s IP address . . . which is the same result desired by *Nadeau*.” *Id.* (citing Ex. 1005, 10:3, 12:55–61; Ex. 1007, 7:59–67; Ex. 1003 ¶¶ 298–301). Petitioner further contends it would have been obvious for a person of ordinary skill in the art to try this technique based on similar reasons. *Id.* at 67–68 (citing Ex. 1005, 7:5–9, 7:22–23, 11:27–28, 12:55–61; Ex. 1007, 7:64–67; Ex. 1003 ¶¶ 298–301).

For teaching the claimed “the first portion being controlled by an entity,” Petitioner notes that “[b]oth the caller and callee access the Internet through an Internet service provider (‘ISP’),” and that “[b]ecause the ISP controls what IP address is assigned to the callee, the ISP is an entity that exercises control over a first portion of the packet switched network.” *Id.* at 68 (citing Ex. 1005, 9:1–5, 10:33–44; Ex. 1003 ¶¶ 287–303).

Claim 74 further recites:

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a second network classification criterion, producing a second network routing message for receipt by the controller, the second network routing message identifying an address in a second portion of the packet switched network, the second portion not controlled by the entity.

As discussed above, Petitioner contends that the SLC determines whether to route the call over the PSTN or an IP network based on the routing information in the matched directory entry. *See* Pet. 70 (referring back to the earlier discussion in the Petition). For teaching the claimed “meet[ing] a second network classification criterion,” Petitioner relies on *Nadeau*’s teachings with respect to routing a call to the public switched telephone

network (PTSN) based on a least cost routing rule or a priority list in a subscriber record. *Id.* at 71 (citing Ex. 1005, 10:11, 10:15–18; Ex. 1003 ¶¶ 306–307).

For the claimed “producing a second network routing message,” Petitioner again relies on Nadeau’s SLC purportedly sending “routing instructions.” *Id.* (citing Ex. 1005, 7:5–9, 7:22–23, 12:55–61; Ex. 1003 ¶¶ 308–309). Petitioner contends that, to route an IP-originated call over the PSTN, “the ‘routing instructions’ direct the DPFE to route the call to a IP-PSTN Gateway (second portion of the packet switched network), also referred to as a Gateway Functional Element (GWFE).” *Id.* (citing Ex. 1005, 7:5–9, 8:39–42, 11:29–33; Ex. 1003 ¶ 310). Regarding the claim requirement that the routing message “identif[ies] an address in a second portion of the packet switched network,” Petitioner acknowledges that Nadeau “does not explicitly state that the routing instructions identify the IP-PSTN Gateway to which the call is routed,” but contends a person of ordinary skill in the art would have known “that the routing instructions must include such an identification to complete the call.” *Id.* at 71–72 (citing Ex. 1003 ¶¶ 311–313). Petitioner further contends that, in light of Kelly, a person of ordinary skill in the art would have known to modify Nadeau’s SLC to perform the gateway selection process of Kelly by “produc[ing] routing instructions that identify the IP-PSTN Gateway by including its IP address.” *Id.* at 72 (citing Ex. 1007, 12:32–35, 12:55–57, 13:22–26; Ex. 1003 ¶ 314).

For teaching the claimed “the second portion not [being] controlled by the entity,” Petitioner notes that “[a]lthough *Nadeau* does not explicitly identify the entity that controls the IP-PTSN Gateway,” Kelly teaches that

“a PTSN carrier rather than an ISP (entity), controls the IP-PTSN Gateway.”
Id. (citing Ex. 1007, 2:59–63, 12:32–37, 13:22–26; Ex. 1003 ¶¶ 315–316).

Regarding combining the asserted references, Petitioner contends Nadeau and Kelly are from the same field of endeavor and are both concerned with reducing the cost for making VoIP calls. Pet. 54 (citing Ex. 1005, 1:53–2:9, 6:30, 10:11–16; Ex. 1007, 2:42–3:19, 13:46–57). Petitioner further contends that a person of ordinary skill in the art “would have considered *Kelly* when implementing or improving *Nadeau*.” *Id.* (citing Ex. 1003 ¶ 268). Petitioner notes that Nadeau’s SLC may determine to route a call over the PSTN based on least cost routing, but that Nadeau “includes only one gateway to route the call to the PSTN, so the cost for PSTN routing is controlled by that gateway alone.” *Id.* at 55 (citing Ex. 1005, 7:5–9, 7:22–23, 8:39–40, 10:11–16, 11:27–28, Fig. 1). Petitioner contends that Kelly “recognizes that costs may be further reduced by selecting a gateway that provides lower cost routing compared to other gateways.” *Id.* (citing Ex. 1007, 13:39–57). In light of this, Petitioner contends a person of ordinary skill in the art “would have been motivated to modify the SLC of *Nadeau* to perform the gateway selection process taught in *Kelly* to further reduce the cost of routing over the PSTN as recognized by *Kelly*.” *Id.* (citing Ex. 1003 ¶ 271).

b. Patent Owner’s Arguments

Patent Owner argues that the only “routing instructions” disclosed by Nadeau for public network routing consist of “simply a directory number (DN).” Prelim. Resp. 39 (citing Ex. 1005, 9:20–23). Thus, according to Patent Owner, “Nadeau does not disclose that anything identifying the IP-PSTN Gateway is required for Internet-to-PSTN routing.” *Id.* Patent

Owner further criticizes Petitioner's assertion that Nadeau's routing instructions "must include" an identification of a gateway to the public network. *See id.* at 39–43 (citing Pet. 71–72). Patent Owner characterizes this as an assertion of inherency and contends that Petitioner has not established Nadeau's routing instructions necessarily identify a gateway. *See id.* Patent Owner contends Petitioner's assertion is supported only by Mr. Bress's testimony, which Patent Owner disputes. *See id.* at 40–43. For example, in response to Mr. Bress's testimony that Nadeau's DPFE and ACS Gateway would need an IP address to route a PSTN call (*see* Ex. 1003 ¶¶ 311–313), Patent Owner provides a counterexample in which Nadeau's single IP-PSTN Gateway is preconfigured to receive all "public" calls. Prelim. Resp. 41–42.

Regarding Petitioner's proposed modification of Nadeau with Kelly, Patent Owner contends Petitioner has failed to "consider[] or describ[e] various significant further modifications of the SLC that would be necessary in order for the combined references to actually perform" the public network routing message limitation. *Id.* at 44. For example, Patent Owner contends "Petitioner fails to explain how modifying Nadeau's SLC to produce a call packet as taught by Kelly, leads to 'producing a second network routing message . . . identifying an address in a second portion of the packet switched network.'" *Id.* at 46–47.

In particular, Patent Owner highlights a potential inconsistency in Petitioner's proposed combination. Patent Owner notes that Petitioner maps Nadeau's Internet ACS Detection Point/DFPE 114 and Internet ACS gateway 116, collectively, to the recited "controller." *Id.* at 48 (citing Pet. 71). Patent Owner further notes Nadeau teaches that ACS Service

Logic Controller 122 provides “routing instructions,” which Petitioner maps to the recited “network routing message,” to Internet ACS Detection Point/DFPE 114. *Id.* at 37 (citing Pet. 71), 48; *see* Ex. 1005, 7:1–12, 9:38–46, 11:27–32. Patent Owner notes Internet ACS Detection Point/DFPE 114—the place where Nadeau’s SLC 122 sends routing instructions—is a VoIP client. Prelim. Resp. 34 (citing Ex. 1005, 12:34–39), 48. Patent Owner then turns to Petitioner’s cited teachings from Kelly and alleges inconsistencies between Kelly and Nadeau. Specifically, Patent Owner notes that Petitioner considers Kelly’s “call packet” to be analogous to the “routing instructions” of Nadeau. *Id.* at 49 (citing Pet. 72). Patent Owner contends “Kelly’s call packet is normally addressed to, and configured to be sent to, an IP-PSTN gateway,” not a VoIP client device as with Nadeau’s routing instructions. *Id.* at 49 (citing Ex. 1007, 13:22–26, 15:12–17). As such, Patent Owner contends that additional modifications of the references would be necessary to teach the claimed “second network routing message for receipt by the controller.” *Id.* at 49–51. Patent Owner further contends “Kelly does not disclose that the contents of the call packet include the IP address of the gateway,” as is also recited in claim 74. *Id.* at 49 (citing Ex. 1007, 13:22–26, 15:12–17).

c. Analysis

Petitioner’s Proposed Combination Does Not Teach a “second network routing message identifying an address in a second portion of the packet switched network”

We are persuaded by Patent Owner’s arguments that Petitioner has not established that the combination of Nadeau and Kelly teaches a “second network routing message identifying an address in a second portion of the

packet switched network” that is “for receipt by the controller.” At the outset, we note Petitioner acknowledges that Nadeau does not explicitly disclose routing instructions that identify a gateway to the public network. Pet. 71. Although Petitioner contends “routing instructions *must* include such an identification to complete the call” (*id.* at 72 (citing Ex. 1003 ¶¶ 311–313) (emphasis added)), Petitioner’s evidence does not establish this.

First, we agree with Patent Owner (Prelim. Resp. 39, 41) that the only “routing information” expressly described in Nadeau as applicable to public calls is “the individual’s directory number (DN) for the PSTN.” Ex. 1005, 9:20–23. Second, Petitioner relies on a conclusory assertion from Mr. Bress, who testifies that, “[b]ecause *Nadeau* discloses that routing is occurring in an IP network, one of ordinary skill in the art would know that, an IP address is used to identify the IP-PSTN Gateway.” Ex. 1003 ¶ 313; *see also* Pet. 72 (citing same). Even if this is true, it does not substantiate Petitioner’s assertion that Nadeau’s routing instructions must include the IP address of the gateway. As pointed out by Patent Owner, Mr. Bress “has not established that the caller’s VoIP client can only receive the gateway identification information from the SLC 122 and that the caller’s VoIP client can only receive this information from the routing instructions.” Prelim. Resp. 42. Further, we also agree with Patent Owner’s assertion that identification of Nadeau’s lone gateway “could be preconfigured into the caller’s VoIP client.” *Id.* Accordingly, we are not persuaded that Nadeau’s routing instructions necessarily must identify the gateway.

Because Nadeau does not teach a “second network routing message identifying an address in a second portion of the packet switched network,” Petitioner relies on Kelly. *See* Pet. 72 (citing Ex. 1007, 12:32–35, 12:55–57,

13:22–26). Yet even if Nadeau’s routing instructions are modified to include the contents of Kelly’s call packet, the combination does not teach that the modified routing instructions identify a public network gateway. Specifically, Petitioner proposes programming Nadeau’s SLC to “perform the gateway selection process taught in *Kelly*.” *Id.* at 55. According to Petitioner, Kelly’s gateway selection process:

(1) transforms a dialed telephone number (e.g., 1-561-997-4001) into a hybrid telephone number domain name (e.g., 4001-997561-1.carrier.com) . . . ; (2) uses successive portions of the hybrid telephone number domain name to retrieve references to name servers that contain an IP address of a carrier gateway . . . ; and (3) produces a call packet, analogous to routing instructions, containing the hybrid telephone number domain name and the IP address of the carrier gateway to effect the call.

Id. (citing Ex. 1007, 11:54–12:11, 12:32–57, 13:21–26). We do not agree with Petitioner’s characterization of part (3), however, because Kelly’s call packet actually contains the “entire telephone number domain name entry” (e.g., “4001.997.561.1.carrier.com”). Ex. 1007, 13:22–26. In contrast, the “IP address of the desired gateway” described in Kelly’s example is

“997.561.1.carrier.com.”⁴ *Id.* at 12:53–57. Although a call packet with the “entire telephone number domain name entry” is *sent to* the IP address of the gateway (*id.* at 13:22–26), this does not mean that the gateway IP address itself necessarily is part of the call packet. As stated above with respect to Nadeau, we do not agree with Petitioner’s argument (*see, e.g.*, Pet. 72 (citing Ex. 1003 ¶¶ 311–313)) that the IP address of the gateway must be part of the call packet simply because the call packet is sent to that IP address. Nor does Petitioner provide any explanation as to why the “entire telephone number domain name entry” in Kelly’s call packet identifies a gateway to the public network commensurate with the language of claim 74.⁵

Therefore, we agree with Patent Owner (Prelim. Resp. 37–43), and determine that Petitioner has not established that Kelly’s call packet identifies the IP-PSTN gateway, i.e., “an address in a second portion of the packet switched network.”

For these reasons, Petitioner’s proffered evidence does not establish that the combination of Nadeau and Kelly teaches “producing a second

⁴ To the extent Petitioner and Mr. Bress cite column 12, lines 55–57 of Kelly for the proposition that “the IP address of the desired gateway . . . is then forwarded via Internet 220 and ISP 250 to WebPhone client 232 by name server 254 in step 12” (Pet. 72; Ex. 1003 ¶ 314 (emphasis omitted)), this teaching relates to “a recursive process” by name server 254 for “resolving the telephone number domain name previously entered into the WebPhone client to the appropriate IP address of a gateway on a PSTN.” Ex. 1007, 12:32–35. Once resolved, the IP address of the gateway is forwarded from name server 254 to WebPhone client 232. *Id.* at 12:55–57. As such, the forwarded gateway IP address is not part of Kelly’s call packet that is cited by Petitioner as teaching the claimed “public network routing message.”

⁵ To the extent Petitioner is relying on this argument, it has failed to “identif[y], in writing and with particularity . . . the grounds on which the challenge . . . is based.” 35 U.S.C. § 312(a)(3).

network routing message for receipt by the controller, the second network routing message identifying an address in a second portion of the packet switched network,” as recited in claim 74.

Petitioner’s Rationale for Combining Kelly with Nadeau is Flawed

Even assuming, *arguendo*, that Petitioner’s evidence established that Nadeau’s routing instructions—as modified by Kelly’s call packet—identify an address in a second portion of the packet switched network, Petitioner’s proposed combination has further problems. We agree with Patent Owner that Petitioner’s stated rationale for combining the references is flawed. First, we agree with Patent Owner that the “*Nadeau-Kelly* combination is an artificial construct which extracts selected teachings of Kelly out of their original context in Kelly’s system (e.g., a VoIP *client* device) and transplants them into a completely different context in Nadeau’s system (e.g., an SLC *server*).” Prelim. Resp. 56–57. Although Petitioner contends that modifying Nadeau’s SLC “simply involve[s] the known technique of programming the SLC to perform the gateway selection process taught by *Kelly*” (Pet. 56; Ex. 1003 ¶ 272)), Petitioner’s asserted combination (*see* Pet. 54–56) results in methods from Kelly’s VoIP client (WebPhone client 232) being applied to a different type of element, namely, Nadeau’s Service Logic Controller 122, rather than Nadeau’s VoIP client 114. This inconsistency undercuts Mr. Bress’s testimony that the modification uses “a known technique . . . to improve similar devices . . . in the same way.” Ex. 1003 ¶ 272 (emphasis added). Furthermore, we agree with Patent Owner that Petitioner has failed to provide “any explanation for why a gateway selection process that Kelly discloses as operating as a *client application* with interactive user features on a VoIP *client* device, would be transplanted by a [person of ordinary skill in

the art] to an SLC *server* in Nadeau.” Prelim. Resp. 58. In the absence of an explanation, we are not persuaded by Petitioner’s assertion (Pet. 56) that the combination is “merely a combination of prior art elements according to known methods.”

Second, we agree with Patent Owner that Nadeau’s Internet ACS Detection Point/DFPE 114, which is a VoIP client, is not programmed to process the contents of Kelly’s call packet. *See* Prelim. Resp. 63–64. Petitioner’s combination relies on Nadeau’s SLC producing that call packet, and Petitioner contends the call packet includes “the hybrid telephone number domain name and the IP address of the carrier gateway to effect the call.”⁶ Pet. 55 (citing Ex. 1007, 13:21–26). Petitioner corresponds the call packet to the routing instructions that are sent to Nadeau’s “detection point (‘DPFE’) and/or Internet ACS Gateway,” i.e., Nadeau’s VoIP client 114. *Id.* at 71 (citing Ex. 1005, 7:5–9, 7:22–23, 12:55–61; Ex. 1003 ¶¶ 308–309). Yet the “routing instructions” expected by Nadeau’s VoIP client 114 relative to public network calls consist of only a directory number (DN). *See* Ex. 1005, 9:20–23. Petitioner does not provide any explanation about how Nadeau’s VoIP client could process a call packet containing a different type of routing instructions—namely, Kelly’s “entire telephone number domain name entry.” *See* Ex. 1007, 13:22–26. Nor does Petitioner propose any modification to Nadeau’s VoIP client to effect such processing. Thus, even if Nadeau’s VoIP client might be a familiar item with obvious uses beyond

⁶ As stated above, the call packet actually includes the “entire telephone number domain name entry” (e.g., “4001.997.561.1.carrier.com”). Ex. 1007, 13:22–26.

its primary purpose as set forth in Nadeau (*see KSR*, 550 U.S. at 420), Petitioner has not explained as much.

Third, Petitioner does not address the “[i]nformation on how to complete the call” that Nadeau’s SLC 112 sends directly to the IP-PSTN Gateway 124 for cross-domain calls. *See* Ex. 1005, 11:31–33, 12:13–15, 13:34–41, Figs. 1, 3, 4 (arrow between elements 122 and 124). We agree with Patent Owner (Prelim. Resp. 63) that Petitioner has not stated how Nadeau’s SLC would be reprogrammed in a combination where “[i]nformation on how to complete the call” could be sent to any of multiple gateways, rather than the lone gateway 124 of Nadeau. Such details, lacking here, are necessary to support a conclusion that one of ordinary skill in the art would have had reasonable expectation of success in combining Nadeau and Kelly in the manner asserted by Petitioner.

In the context of this case, we find inadequate Petitioner’s reasoning that a person of ordinary skill in the art would have known to implement the Nadeau-Kelly combination via a simple reprogramming of Nadeau’s SLC. Thus, we determine that Petitioner’s stated rationale for combining Nadeau and Kelly is fatally flawed.

d. Conclusion Regarding Claim 74

For the reasons above, Petitioner has not established a reasonable likelihood that it would prevail in showing claim 74 would have been obvious over the combination of Nadeau and Kelly.

2. Claims 75–79, 83, 84, 88, 89, 92, 94–96, 98, and 99

Like claim 74, each of independent claims 94 and 99 requires the production of a second network routing message that identifies an address in

a second portion of the packet switched network. Petitioner relies on the same analysis from claim 74 for these limitations. *See* Pet. 83, 84.

Petitioner also relies on the same rationale for combining Kelly with Nadeau. *See id.* at 54–56. Therefore, for the same reasons discussed with respect to claim 74, Petitioner has not established a reasonable likelihood that it would prevail in showing claims 94 and 99 would have been obvious over the combination of Nadeau and Kelly.

Claims 75–79, 83, 84, 88, 89, and 92 depend from claim 74; and claims 95, 96, and 98 depend from claim 94. Petitioner’s analyses of these dependent claims do not cure the deficiencies noted above with respect to the independent claims. *See id.* at 73–78, 83–84. Therefore, for the same reasons discussed with respect to claim 74, Petitioner has not established a reasonable likelihood that it would prevail in showing claims 75–79, 83, 84, 88, 89, 92, 94–96, 98, and 99 would have been obvious over the combination of Nadeau and Kelly.

III. CONCLUSION

As discussed above, Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to at least one claim of the ’005 patent challenged in the Petition. Therefore, we do not institute an *inter partes* review as to any of the challenged claims.

IV. ORDER

Accordingly, it is

ORDERED that the Petition is *denied* as to all challenged claims of U.S. Patent No. 9,179,005 B2 and no trial or *inter partes* review is instituted.

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