UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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APPLE INC.,
Petitioner,

v.

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

_____

Case IPR2017-01399
Patent 8,542,815 B2

_____

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

COCKS, *Administrative Patent Judge*.

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

I. INTRODUCTION

Apple Inc. ("Petitioner") filed a Petition for *inter partes* review of claims 3, 4, 8, 9, 11, 12, 14–16, 30, 31, 35, 36, 38, 39, 42, 43, 61, 65, 66, 81, 85, 86, 100, 104, and 105 of U.S. Patent No. 8,542,815 B2 (Ex. 1001, "the '815 patent"). Paper 1 ("Pet."). Voip-Pal.com, Inc. ("Patent Owner") 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, we conclude that the information presented does not show reasonable likelihood that Petitioner would prevail in establishing the unpatentability of claims 3, 4, 8, 9, 11 12, 14–16, 30, 31, 35, 36, 38, 39, 42, 43, 61, 65, 66, 81, 86, 100, 104, and 105 of the '815 patent.

A. Related Matters

The parties identify the following district court proceedings in which the '815 patent has been asserted: *Voip-Pal.com, Inc. v. Apple, Inc.*, Case No. 2-16-cv-00260 (D. Nev.); *Voip-Pal.com, Inc. v. Verizon Wireless Services, LLC*, Case No. 2-16-cv-00271 (D. Nev.); *Voip-Pal.com, Inc. v. Twitter, Inc.*, 2:-16-cv-00260 (D. Nev. Feb. 9, 2016). Paper 4, 1; *See* Pet. 56–57. Petitioner also has filed a petition for *inter partes* review of claims of the '815 patent in IPR2016-01201, as well as petitions in connection with related U.S. Patent No. 9,179,005 ("the '005 patent") in

IPR2016-0198 and IPR2017-01398.[1] Patent Owner further identifies the

following proceedings to which Petitioner is not a party:

> IPR2016-01382, challenging the '815 patent;
>
> IPR2016-01383, challenging the '005 patent; and
>
> IPR2016-01384, challenging the '005 patent.

Paper 4, 1.

B. The '815 Patent

The '815 patent is directed to classifying a call as a public network

call or a private network call and producing a routing message based on that

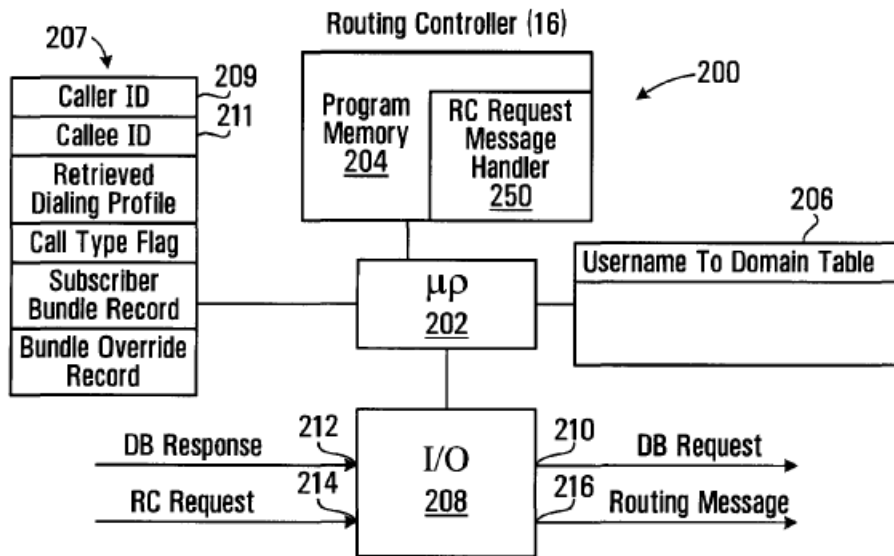classification. Ex. 1001, Abstract. Figure 7 of the '815 patent is shown

below.

FIG. 7

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[1] Trial was instituted in each of IPR2016-01198 and IPR2016-01201 on November 21, 2016. A decision regarding institution of trial in IPR2017-01398 is being mailed concurrently with this decision.

Figure 7 above illustrates a routing controller that facilitates communication between callers and callees. *Id.* at Fig. 7, 14:24–25, 17:16–17. As shown in Figure 7, above, routing controller (RC) 16 includes RC processor circuit 200, which in turn includes processor 202, program memory 204, table memory 206, buffer memory 207, and I/O port 208. *Id.* at 17:17–22. Routing controller 16 queries database 18 (shown in Figure 1) to produce a routing message to connect caller and callee. *Id.* at 14:10–17, 14:24–34. Program memory 204 includes blocks of code for directing processor 202 to carry out various functions of the routing controller. *Id.* at 17:38–40. Those blocks of code include RC request message handler 250, which directs the routing controller to produce the routing message. *Id.* at 17:40–44.

In response to a calling subscriber initiating a call, the routing controller of the '815 patent:

> receiv[es] a callee identifier from the calling subscriber, us[es] call classification criteria associated with the calling subscriber to classify the call as a public network call or a private network call[,] and produc[es] a routing message identifying an address on the private network, associated with the callee[,] when the call is classified as a private network call and produc[es] a routing message identifying a gateway to the public network when the call is classified as a public network call.

Id. at 14:24–34.

Figures 8A through 8D of the '815 patent illustrate a flowchart of an RC request message handler executed by the RC processor circuit. *Id.* at 10:62–63. Figure 8B is reproduced below.
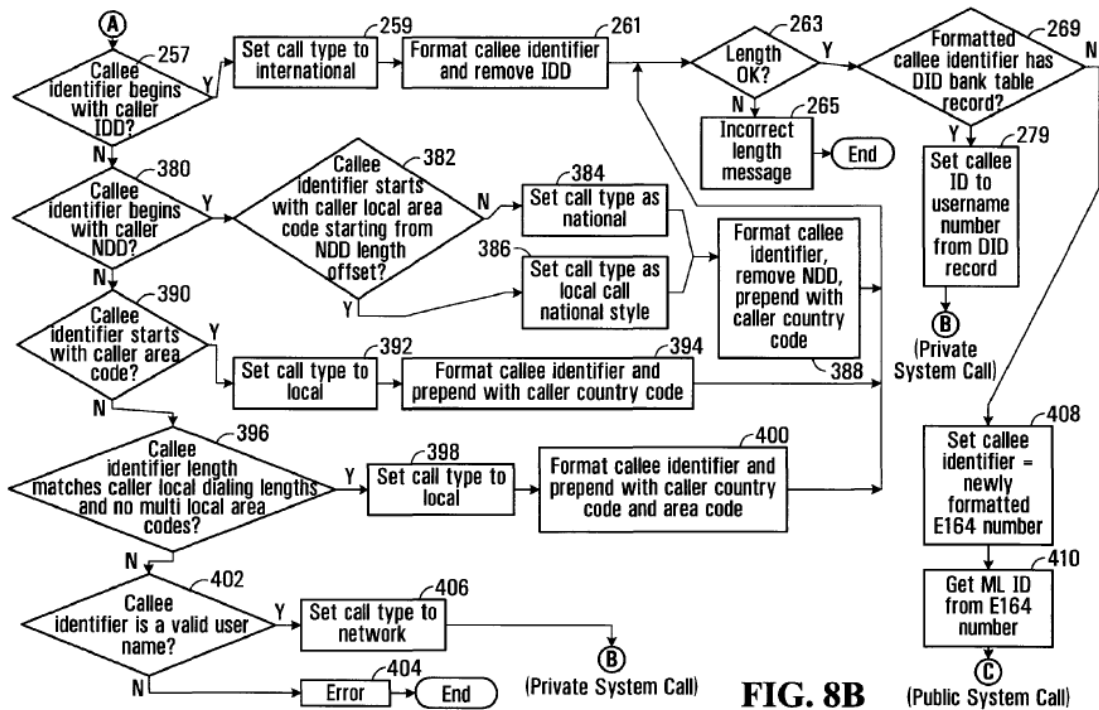
FIG. 8B

Figure 8B above illustrates steps for performing checks on the callee identifier. *Id.* at Fig. 8B, 19:45–49. Blocks 257, 380, 390, 396, 402 in Figure 8B above effectively "establish call classification criteria for classifying the call as a public network call or a private network call." *Id.* at 22:48–51. For example, 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 22:51–60. Block 269 also classifies the call as public or private, depending on whether the callee is a subscriber to the system. *Id.* at 22:51–23:8, 20:14–24; *see also id.* at 18:55–19:22.

C. Illustrative Claims

Each of claims 3, 4, 8, 9, 11, 12, 14–16, 30, 31, 35, 36, 38, 39, 42, 43, 61, 65, 66, 81, 85, 86, 100, 104, and 105 is a dependent claim. Claim 3

depends from claim 1. Claims 1 and 3 are illustrative and are reproduced below:

> 1.   A process for operating a call routing controller to facilitate communication between callers and callees in a system comprising a plurality of nodes with which callers and callees are associated, the process comprising:
>
> in response to initiation of a call by a calling subscriber, receiving a caller identifier and a callee identifier;
>
> locating a caller dialing profile comprising a username associated with the caller and a plurality of calling attributes associated with the caller;
>
> determining a match when at least one of said calling attributes matches at least a portion of said callee identifier;
>
> classifying the call as a public network call when said match meets public network classification criteria and classifying the call as a private network call when said match meets private network classification criteria;
>
> when the call is classified as a private network call, producing a private network routing message for receipt by a call controller, said private network routing message identifying an address, on the private network, associated with the callee;
>
> when the call is classified as a public network call, producing a public network routing message for receipt by the call controller, said public network routing message identifying a gateway to the public network.
>
> 3.   The process of claim 1 wherein determining said match comprises determining said match when said callee identifier includes a portion that matches an International Dialing Digit (IDD) associated with said caller dialing profile.

Id. at 36:14–38, 42–45.

D. Asserted Grounds of Unpatentability

Petitioner contends that claims 3, 4, 8, 9, 11, 12, 14–16, 30, 31, 35, 36, 38, 39, 42, 43, 61, 65, 66, 81, 85, 86, 100, 104, and 105 of the '815 patent are unpatentable based on the following grounds:

References	Basis	Challenged Claims
Chu '684[2] and Scott[3]	35 U.S.C. § 103(a)	3, 4, 8, 9, 12, 14–16, 30, 31, 35, 36, 39, 42, 43, 61, 66, 81, 86, 100, and 105
Chu '684, Scott, and Hinchey[4]	35 U.S.C. § 103(a)	11, 38, 65, 85, and 104

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent 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); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir.

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[2] U.S. Patent No. 7,486,684 B2, issued Feb. 3, 2009 (Ex. 1003, "Chu '684")

[3] U.S. Patent No. 6,760,324 B1, issued July 6, 2004 (Ex. 1004, "Scott")

[4] U.S. Patent Application Publication No. 2002/0122547 A1, published Sept. 5, 2002 (Ex. 1006, "Hinchey")

2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner proposes constructions for the means-plus-function limitations of claims 28, 34, 41, 93, and 100. Pet. 7–12; *see* 37 C.F.R. § 42.104(b)(3) (requiring a petition to set forth "[w]here the claim to be construed contains a means-plus-function or step-plus-function limitation as permitted under 35 U.S.C. 112(f), . . . the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function"). Patent Owner does not dispute any of Petitioner's proposed claim constructions. For purposes of this Decision, we determine that it is unnecessary to address the claim constructions proposed by Petitioner.

Patent Owner, however, has presented arguments that require us to consider whether certain steps of the challenged claims must be performed in a specific order. *See* Prelim. Resp. 30–33. More particularly, claim 1 requires "locating a caller dialing profile" that includes "a plurality of calling attributes associated with the caller," then "determining a match when at least one of said calling attributes matches at least a portion of" a "callee identifier." The claim goes on to dictate that the call is classified as either a public network call or a private network call based on that match. Patent Owner contends that, because the required "calling attributes" are consulted to determine how a message is routed, this necessarily means the act of locating a caller profile that incorporates the calling attributes must have

8

occurred prior to the step of determining a match using based on those calling attributes. *See id.*

In considering whether the steps of a claim must be performed in the order written, the first place to look is the claim language itself. *See Altris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369–70 (Fed. Cir. 2003). In claim 1, for instance, the calling attributes of a caller dialing profile that are consulted for the purpose of determining message routing must necessarily have been ascertained prior to such message routing determination. Because the function of a particular component in a prior step is referenced in a subsequent step, it is the logical and natural inference that the steps are ordered with respect to one another. *See Mantech Envtl. Corp. v. Hudson Envtl. Servs., Inc.*, 152 F.3d 1368, 1375–76 (Fed. Cir. 1998) (holding that the steps of a method claim had to be performed in their written order because each subsequent step referenced something logically indicating the prior step had been performed). Petitioner does not present arguments regarding the ordering of claim steps. We conclude that, for claim 1, the pertinent steps discussed above occur in the order in which they appear in the claims. We also reach that conclusion for each of the other independent claims involved in this proceeding, all of which include a similar requirement.

We have given all other terms their ordinary and customary meaning and conclude that it is unnecessary, for purposes of this Decision, to make any of those meanings explicit as the terms are not in dispute. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.").

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.[5] *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 in a related field, with at least 2–4 years of industry experience in designing or developing packet-based and circuit-switched systems. Additional industry experience or technical training may offset less formal education, while advanced degrees or additional formal education may offset lesser levels of industry experience.

Pet. 12–13 (citing Ex. 1005 ¶ 19). In connection with this proceeding, Patent Owner does not propose, or otherwise rely upon, 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

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[5] The parties have not presented any objective evidence of non-obviousness.

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. *Asserted Obviousness over Chu '684 and Scott*

Petitioner contends that claims 3, 4, 8, 9, 12, 14–16, 30, 31, 35, 36, 39, 42, 43, 61, 66, 81, 86, 100, and 105 of the '815 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Chu '684 and Scott. Pet. 6, 13–48. Patent Owner disagrees with Petitioner's contention. *See generally* Prelim. Resp.

1. *Summary of Chu '684*

Chu '684 discloses a communications system for managing calls in an Internet Protocol (IP) Virtual Private Network (VPN) and calls to the public switched telephone network (PSTN). Ex. 1003, Title, Abstract, 2:51–3:3, 4:13–14. Figure 2 of Chu '684 is shown below.
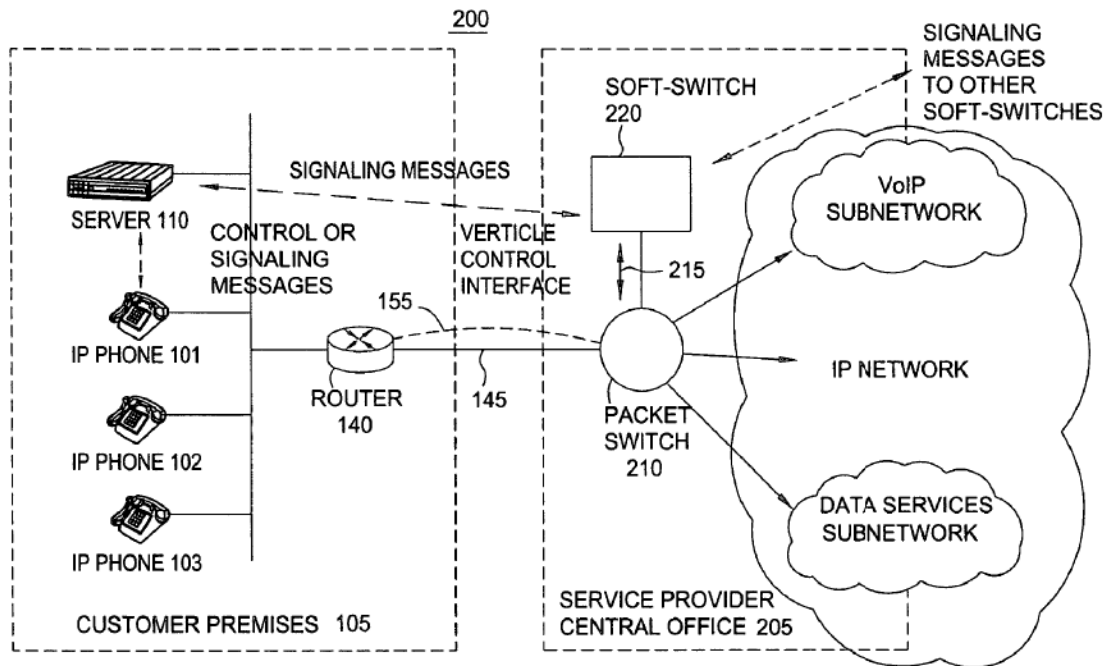
FIG. 2

Figure 2 above depicts a portion of a communications system according to
an embodiment of Chu '684's invention. *Id.* at 3:14–15. As shown above in
Figure 2, communications system 200 includes customer premises 105
having IP phones 101, 102, and 103 and server 110 connected to a voice
over IP (VoIP)-VPN Service Provider (SP) at SP central office 205. *Id.* at
4:24–28. Connection 145 between customer premises 205 and SP central
office 205 is made via one or more routers 140. *Id.* at 4:28–30. Server 110
communicates with soft-switch 220 with an agreed-upon signaling protocol
such as Session Invitation Protocol (SIP). *Id.* at 4:49–52. Soft-switch 220
sends appropriate commands to packet switch 210. Packet switch 210 is a
special media gateway that accepts voice packets from an incoming interface
and switches these packets to an outgoing interface. *Id.* at 4:36–39. Soft-
switch 220 "is the intelligence of the system. . . . For example, it keeps track

12

of the VPN that a location belongs to, the dial plans of the subscribers, . . .
and the like." *Id.* at 4:59–63.

Chu '684's VoIP network carries both on-net (within the same VoIP
VPN) and off-net (to PSTN) calls. *Id.* at 5:17–19. Chu '684 discloses that
an "On-Net Call" sequence begins when a user picks up the handset at IP
phone 101. *Id.* at 8:39–40, 8:55–56. According to Chu '684, IP phone 101
collects dialed digits from the user and sends them to server 110. *Id.* at
8:62–64. Chu '684 discloses that "after receiving all the dialed digits from
the phone 101, server 110 consults its dial plan to determine whether the call
is local, to another on-net phone, or to a phone that is on the PSTN." *Id.* at
8:65–9:1. In this on-net example, the call is another on-net phone in another
location. According to Chu '684, server 110 sends an SIP invite message to
soft-switch 220 at central office 205. *Id.* at 9:2–4. Chu '684 discloses that
soft-switch 220 "consults the dial plan for this subscriber" based on the ID
of server 110. *Id.* at 9:30–33. From the database associated with the dial
plan, soft-switch 220 determines, among other things, the IP address of the
egress packet switch. *Id.* at 9:34–38. Chu '684 discloses that soft-
switch 220 sends an SIP invite message to the next soft-switch, the SIP
message including information such as that "the call is an on-net call for a
particular VPN." *Id.* at 9:50–58.

Figure 13 of Chu '684 illustrates a configuration for establishing
IP-VPN service to the PSTN. *Id.* at 13:1–3. According to Chu '684, for an
outgoing call from IP phone 101, the operation is very similar to that of an
intra-net call. *Id.* at 13:13–15. Chu '684 states: "From the dialed digits (of
a destination phone that is being called, PSTN phone 1301), ingress soft-
switch 220[] determines that this call is for the PSTN." *Id.* at 13:15–18.

13

From the same dialed digits, the soft-switch also determines egress PSTN

gateway 1302 and its controlling soft-switch 1304. *Id.* at 13:18–20.

2. Summary of Scott

Scott discloses "[a] method, system, and computer program product

that provides voice over the Internet communication." Ex. 1004, 2:41–42.
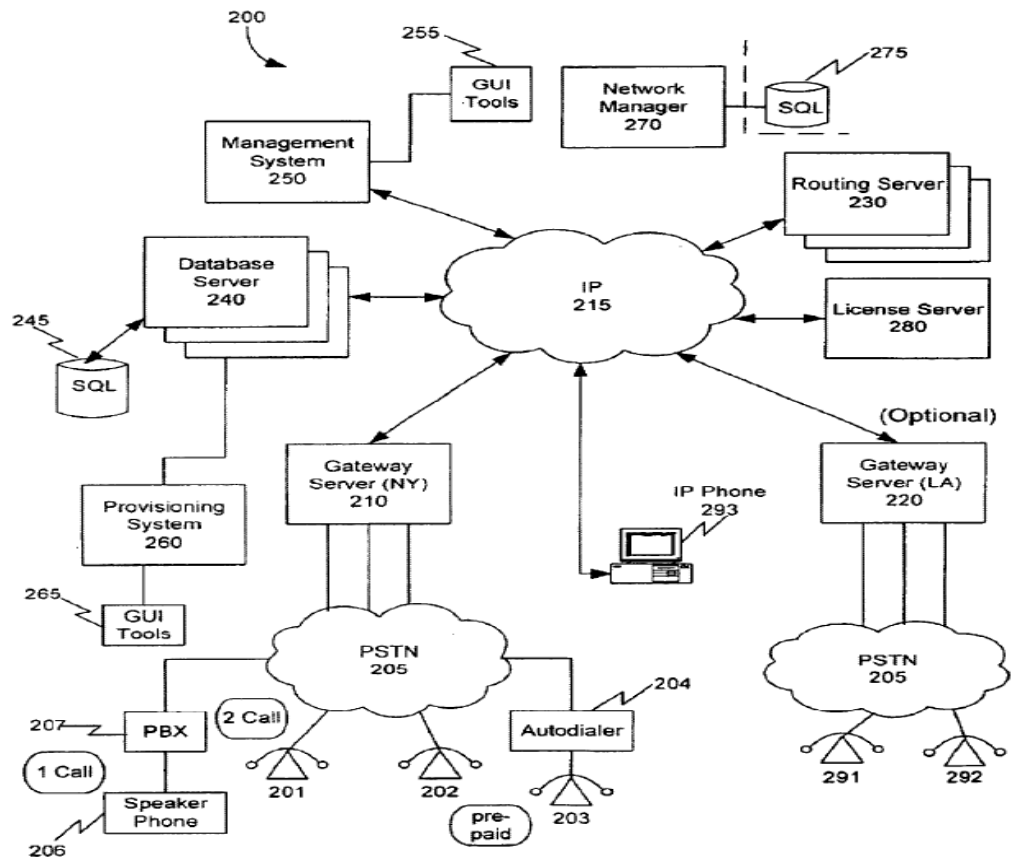
Scott's Figure 2 is reproduced below.

FIG. 2

Figure 2 above depicts "a diagram of a VoIP system." *Id*. at 3:12–13.

"VoIP system 200 . . . allows traffic (e.g. voice or fax date) originating on a

circuit-switched network to be carried over a packet-switched network" and

"acts as a bridge between a public switch telephone network [PSTN] 205

and an IP network 215." *Id*. at 6:23–29. Scott describes the operation of

VoIP system 200 as follows:

> [V]oice and data traffic can originate at any type of terminal equipment at PSTN 205. For example, a call can be placed on an ordinary telephone 201 or 202. A call can be placed from an ordinary telephone 203 using a prepaid service and autodialer 204. Calls can also originate from a speaker or conference-type phone 206 through a private branch exchange (PBX) 207. Such calls can terminate at an IP phone 293 or an ordinary telephone 291, 292.

Id. at 6:30–37. Based on that above description, Scott states that a person of ordinary skill in the art would know that any type of computer or telephone equipment can be used to originate and terminate voice calls over the VoIP system 200. *Id*. at 6:38–42.

3. *Discussion–Chu '684 and Scott*

Each of the dependent claims challenged in this proceeding ultimately depends from one of independent claims 1, 28, 54, 74, and 93. We focus, initially, on claim 1. That claim includes the following features:

> in response to initiation of a call by a calling subscriber, receiving a caller identifier and a callee identifier;

> locating a caller dialing profile comprising a username associated with the caller and a plurality of calling attributes associated with the caller;

> determining a match when at least one of said calling attributes matches at least a portion of said callee identifier;

> classifying the call as a public network call when said match meets public network classification criteria and classifying the call as a private network call when said match meets private network classification criteria;

> when the call is classified as a private network call, producing a private network routing message for receipt by a call controller, said private network routing message identifying an address, on the private network, associated with the callee;

15

> when the call is classified as a public network call, producing a public network routing message for receipt by the call controller, said public network routing message identifying a gateway to the public network.

Ex. 1001, 36:18–38.

Thus, claim 1 requires that at least one "calling attribute" associated with a caller is evaluated to determine if that calling attribute matches a portion of a callee identifier. The call is classified as a public network call or a private network call based on whether that match meets public or private network classification criteria. Either a private network routing message is produced for receipt by the call controller identifying a private network address associated with the callee, or a public network routing address is produced which identifies a gateway to the public network.

a. *Issues pertaining to ordering of steps*

As discussed above, we construe all the challenged claims of the '815 patent as requiring an act of locating a caller dialing profile comprising a plurality of calling attributes associated with a caller, *and then* evaluating those attributes in producing a routing message. *See supra* (§ II.A. Claim Construction). Correspondingly, Patent Owner contends Petitioner has not accounted properly for the step ordering required by the claims in its grounds of unpatentability. *See* Prelim. Resp. 30–33. In conjunction with the step in claim 1 of locating a caller dialing profile comprising a plurality of calling attributes associated with a caller, Petitioner points to Chu '684's disclosure at column 9, lines 30–33. Pet. 17–18. This portion of Chu '684 concerns its disclosed "step 610" and reads: "[a]t step 610, upon receipt of the SIP "invite" message from the server 110, the soft-switch 220 consults

the dial plan for this subscriber. The dial plan to use can be determined from the ID of the server 110." Ex. 1006, 9:30–33.

Petitioner subsequently relies on Chu '684's disclosure at column 8, line 65 through column 9, line 1, pertaining to Chu '684's "step 608" to account for the act of "determining a match" and "classifying the call" based on that match to determine whether public or private network criteria have been met. Pet. 22–23. Nevertheless, the performance of Chu '684's "step 608" occurs temporally *before* the performance of "step 610." That Petitioner relies on Chu '684's "step 610" for "locating a caller dialing profile," and then relies on Chu '684's *prior* "step 608" for the *subsequent* claim steps of "determining a match" and "classifying the call" is at odds, or is inconsistent, with the step ordering that is required by the claims of the '815 patent. In that respect, we agree with Patent Owner that Petitioner's reliance on "Chu '684's 'classifying' step 608 at the server [which] is performed before the 'locating' step 610," is an order that is not commensurate with the required sequence of steps in claim 1. *See* Prelim. Resp. 32–33. The same deficiency also emerges in Petitioner's analysis of independent claims 28, 54, 74, and 93. That deficiency likewise manifests with respect to each of claims 3, 4, 8, 9, 11, 12, 14–16, 30, 31, 35, 36, 39, 42, 43, 61, 66, 81, 86, 88, 100, and 105, which depend, directly or indirectly, from one of claims 1, 28, 54, 74, and 93.

b. Proposed reasons to combine

There also is disagreement between the parties as to whether Petitioner has shown adequate reasons to combine the teachings of Chu '684 and Scott. Petitioner offers the following as reasoning that purportedly

would have prompted a skilled artisan to seek to modify Chu '684 based on

Scott's disclosure:

> It would have been obvious to a POSITA to modify the system described by *Chu '684* with the specific dialed digit reformatting teachings of *Scott.* Given that the system of *Chu '684* already contains all the infrastructure needed to support such reformatting, the modification to *Chu '684* would be straightforward, not requiring undue experimentation, and would produce predictable results. Upon reading the disclosure of *Chu '684*, a POSITA would have recognized that allowing users to place calls as if they were dialing from a standard PSTN phone would be desirable, creating a system capable of supporting a more intuitive and user-friendly interface. *See* **Ex. 1005**, *Houh Decl.* at ¶¶ 35-39. Further, Scott provides express motivation to make such a modification to systems such as Chu '684. Namely, Scott teaches that reformatting the dialed number allows users to enter dialed digits in a normal manner while still providing consistency in call processing and route resolution—features that would significantly benefit the Chu '684 system. **Ex. 1004**, *Scott* at 67:46-53; *see also* **Ex. 1005**, *Houh Decl.* at ¶ 37.

> Thus, a POSITA would have appreciated that these improvements to *Chu '684* could be achieved by merely programming the system of *Chu '684* to analyze the dialed digits and reformat as necessary using caller attributes such as international and national prefixes. Such modifications are simply a combination of the system of *Chu '684* with elements of *Scott* that would have yielded predictable results without requiring undue experimentation. *See* **Ex. 1005**, *Houh Decl.* at ¶ 38. Thus, it would have been an application of nothing more than ordinary skill and common sense to combine *Scott's* number reformatting with the VoIP system of *Chu '684*. *Id*.

Pet. 19–20.

An underlying premise of Petitioner's proposal to combine the

teachings of Scott with those of Chu '684 is that a skilled artisan would have

viewed Chu '684's interface as one less "intuitive" and less "user-friendly,"

than that of Scott, thus giving rise to a desire to improve Chu '684's system. *Id.* As support for that proposal, Petitioner relies on the testimony of Dr. Houh spanning paragraphs 35 to 39 of his Declaration (Ex. 1005). In those paragraphs, Dr. Houh essentially expresses the same statements as those reproduced above. Notably absent, however, from both the Petition and Dr. Houh's testimony is underlying evidentiary support for the proposition that one of ordinary skill in the art would have regarded Chu '684's teachings as deficient. Indeed, Petitioner's statement and Dr. Houh's bare testimony that "[u]pon reading the disclosure of Chu '684," a person of ordinary skill in the art would have sought to improve that very disclosure seemingly warrants underlying explanation or citation, yet no adequate support in that regard is supplied. *See* Pet. 16; Ex. 1005 ¶ 38. We also take note that Chu '684 characterizes its disclosed invention as being "innovative," "novel," and overcoming "disadvantages" associated with the prior art. Ex. 1003, 2:28–29, 2:33–35. That Chu '684 praises its own disclosure is unsurprising. Petitioner's contention, however, that Chu '684 itself would have suggested a deficiency and a need for improvement is incongruent with the content of this reference.

Petitioner also points to Scott's disclosure as additionally providing "express motivation" to modify Chu's system. Pet. 19 (citing Ex. 1004, 67:46–53). According to Petitioner and Dr. Houh, Scott conveys that "reformatting the dialed number allows users to enter dialed digits in a standardized manner while still providing consistency in call processing and route resolution—features that would significantly benefit the Chu '684 system." *Id.* at 19–20; Ex. 1008 ¶ 37. The cited portion of Scott describes reformatting dialed digits into a "fully resolved format" that allows "routing

information [to] be shared between Gateway Servers in different areas without modification." Ex. 1004, 67:46–53. Petitioner and Dr. Houh, however, do not explain adequately why and how that disclosure "would significantly benefit" Chu '684's particular communication system. The general premise that Chu '684's system would benefit without explanation of what that benefit entails, without more, casts doubt that Petitioner has established the requisite "articulated reasoning with some rational underpinning" that is necessary to support a motivation to combine teachings. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Moreover, Petitioner contends that the claims are rendered obvious "by merely programming the system of *Chu '684* to analyze the dialed digits and reformat *as necessary* using caller attributes such as national and area code." Pet. 20 (second emphasis added). Left wanting from that contention is adequate support in the record as to why or how one of ordinary skill would evaluate when it is "necessary" to reprogram Chu '684's system based on Scott's teachings. Petitioner's position in that regard is not grounded in what a skilled artisan would have gleaned from the teachings of the prior art, and is instead an impermissible exercise of hindsight with the claims of the '815 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 ("The inventor's own path itself never leads to a conclusion of obviousness; that is hindsight.").

Lastly, Petitioner and Dr. Houh offer "common sense" as an additional rationale underlying the combination of Chu '684 and Scott. Pet. 20; Ex. 1008 ¶ 38. Recourse to "common sense" certainly has its place in considering the question of obviousness. *See KSR*, 550 U.S. at 421

("When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense."). Yet, here, the reliance on a theory of "common sense" is unexplained. As our reviewing court has observed, "[a]bsent some articulated rationale, a finding that a combination of prior art would have been 'common sense' or 'intuitive' is no different than merely stating that the combination 'would have been obvious.'" *In re Van Os*, 844 F.3d 1359, 1361 (Fed. Cir. 2017). On this record, we do not agree that a skilled artisan would have regarded Chu '684 as deficient and ripe for improvement. Accordingly, we determine that Petitioner has not articulated persuasive reasoning with a rational underpinning for combining the teachings of Chu '684 and Scott.

c. Conclusion–Chu '684 and Scott

We have carefully considered the Petition and Patent Owner's Preliminary Response. For the reasons discussed above, we determine that Petitioner has not shown a reasonable likelihood of success in challenging claims 3, 4, 8, 9, 12, 14–16, 30, 31, 35, 36, 39, 42, 43, 61, 66, 81, 86, 100, and 105 based on Chu '684 and Scott. We, thus, conclude that institution of trial is not warranted as to those claims.

E. Asserted Obviousness over Chu '684, Scott, and Hinchey

Petitioner also contends that claims 11, 38, 65, 85, and 104 are unpatentable based on Chu '684, Scott, and Hinchey. Pet. 6, 48–55. Each of claims 11, 38, 65, 85, and 104 ultimately depends from one of independent claims 1, 28, 54, 74, and 93. Petitioner does not rely on

Hinchey to make up for any of the deficiencies discussed above in conjunction with the ground of unpatentability based on Chu '684 and Scott. We also conclude that Petitioner has not shown a reasonable likelihood of success in challenging the patentability of claims 11, 38, 65, 85, and 104.

III. CONCLUSION

For the above reasons, we determine that the information presented does not establish a reasonable likelihood that Petitioner would prevail in showing that claims 3, 4, 8, 9, 11, 12, 14–16, 30, 31, 35, 36, 38, 39, 42, 43, 61, 65, 66, 81, 85, 86, 100, 104, and 105 of the '815 patent are unpatentable.

IV. ORDER

Accordingly, it is

ORDERED that the Petition is denied as to all challenged claims of the '815 patent and no trial or *inter partes* review is instituted.

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