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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.

Petitioner,

v.

VOIP-PAL.COM, INC.,

Patent Owner

Case No. IPR2016-01198
U.S. Patent 9,179,005

**PATENT OWNER'S PRELIMINARY RESPONSE TO PETITION
FOR *INTER PARTES* REVIEW**

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EXHIBIT LIST

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2001	Comparison of Ground 1 and Ground 2 of Petition

Pursuant to 35 U.S.C. § 313, 37 C.F.R. § 42.107, and the Notice of Filing Date Accorded to Petition (Paper 3), dated June 21, 2016, Voip-Pal.com, Inc. ("Voip-Pal") submits this Preliminary Response to the Petition for *Inter Partes* Review of U.S. 9,179,005 (the '005 Patent) (Paper 1) by Apple Inc. ("Apple").

I. INTRODUCTION

Digifonica, a real party-in-interest to this proceeding and wholly owned subsidiary of Patent Owner Voip-Pal, was founded in 2004 with the vision that the Internet would be the future of telecommunications. As a startup company, Digifonica did not have existing customers or legacy systems. Instead, Digifonica had the opportunity to start from a blank slate. Digifonica employed top professionals in the open-source software community. Three Ph.D.s with various engineering backgrounds held the top positions at the Company. Digifonica's engineers developed an innovative software solution for routing communications, which by the mid-2000s it implemented in four nodes spread across three geographic regions. Digifonica's R&D efforts led to several patents, including U.S. Patent No. 8,542,815 and a continuation patent, the '005 Patent, which is the subject of the present proceeding.

Petitioner challenges Claims 1, 24-26, 49-50, 73-79, 83-84, 88-89, 92, 94-96, 98, and 99 of the '005 Patent on two grounds:

1.   Alleged obviousness under § 103(a) over U.S. Patent No. 7,486,684 to

Chu et al. ("Chu '684") in view of U.S. Patent No. 8,036,366 to Chu ("Chu '366").

2.   Alleged obviousness under § 103(a) over Chu '684 in view of U.S.

Patent Publication No. 2007/0064919 to Chen et al. ("Chen").

Petitioner also submitted a Declaration by declarant Henry H. Houh, PhD

Ex. 1009 ("Declaration").

As Voip-Pal explains below, Petitioner's arguments and assessments of the

references fail to establish a reasonable likelihood that Petitioner would prevail as

to its asserted grounds, as required under 35 U.S.C. § 314(a).   Accordingly,

institution of this proceeding should be denied as to both asserted grounds.

Petitioner's two grounds fail to provide all claim elements.   For example,

Chu '684 teaches that calls are classified *before* a soft-switch uses a server ID "to

locate" a dial plan, but the "classification criteria" recited in steps [1b]-[1c] of

Claim 1 (see also Claim 74 steps [74b]-[74c]) are based on information determined

in a preceding step [1a] of "using a caller identifier … to locate".   Chu '684 also

lacks call routing based on "<u>calling attributes</u>" as recited in steps [1b]-[1c] or "first

participant attributes" as recited in steps [74b]-[74c].   Furthermore, the proposed

combinations would render the primary reference, Chu '684, inoperative or

unsuitable for its intended purpose.   Many of Petitioner's arguments are premised

on a fundamental misinterpretation of the term "subscriber" in Chu '684 as

referring to an *individual* rather than to an *enterprise*. This error undercuts

Petitioner's assertions that the combined references teach certain claim elements.

In particular, Petitioner mistakenly conflates an *enterprise* subscriber's "dial plan"

and an individual caller's "dialing profile." Petitioner also fails to articulate any

plausible reason to combine the references. Any motivation to do so is further

undermined by the misinterpretation of Chu '684.

II. ARGUMENT

A.   Introduction to Claimed Subject Matter

Petitioner directs its analysis almost entirely to Claim 1:

> 1. [1p] A process for producing a routing message for routing communications between a caller and a callee in a communication system, the process comprising:

> [1a] using a caller identifier associated with the caller to locate a caller dialing profile comprising a plurality of calling attributes associated with the caller;

> [1b] when at least one of said calling attributes and at least a portion of a callee identifier associated with the callee meet private network classification criteria, 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; and

[1c] when at least one of said calling attributes and at least a portion of said callee identifier meet a public network classification criterion, producing a public network routing message for receipt by the call controller, said public network routing message identifying a gateway to the public network.

By way of background, a public switched telephone network (PSTN) uses traditional telephone technology including dedicated telephone lines from a service provider to transmit calls over a circuit-switched network. Voice over Internet protocol (VoIP) provides digital voice communications and multimedia sessions over Internet protocol (IP) networks, such as the Internet. Digital information is packetized and transmitted as IP packets over such packet-switched IP networks.

The method of Claim 1 is directed to telecommunications call routing. The method involves routing a call when it meets "private network classification criteria" or "a public network classification criterion" based on at least one calling attribute and at least a portion of the callee identifier. The method of Claim 74 is directed to routing based on profile attributes of a "first participant" (e.g., caller) and "a portion of an identifier for a second participant" (e.g., callee ID) meeting "first" or "second network classification criteri[a]."

A call may be routed to, e.g., a traditional circuit switched network such as the PSTN, or to, e.g., a packet switched network such as the Internet, based on a calling attribute and at least a portion of the callee's information. The method does

not evaluate the callee identifier in isolation, but also considers attributes in the caller's dialing profile. Each caller has a dialing profile including a plurality of calling attributes, at least one of which is used along with at least a portion of a callee identifier, e.g., callee phone number, before the system makes a network classification decision, e.g., PSTN or Internet routing.

B.   Petitioner's two obviousness grounds are redundant

The two obviousness grounds asserted in the Petition are, by Petitioner's own words, redundant.

Petitioner expressly admits that Ground 1 (Chu '684 & Chu '366) and Ground 2 (Chu '684 & Chen) are redundant: "the substance between the two secondary references is largely identical."   Petition at 36 (emphasis added). Petitioner presents Ground 2 "to account for the possibility that the Patent Owner may attempt to 'swear behind' the Chu '366 reference," whereas Chen predates the '005 Patent's priority date "by a significant time period." *Id*. at 36-37.

Patent Owner agrees with Petitioner's admission of the redundancy of Grounds 1 and 2. Attached as Exhibit 2001 is a comparison of the arguments presented in Ground 1 to the arguments presented in Ground 2. As seen from Exhibit 2001, Petitioner relies on identical citations to Chu '684 in both grounds, Petitioner's use of the secondary references is nearly identical, and Petitioner's arguments in these two Grounds are essentially verbatim.

Petitioner fails to explain how Ground 1 is distinct from Ground 2, other than the fact that Patent Owner may antedate Chu '366 (Ground 1). As discussed *infra*, the claimed invention was reduced to practice before Chu '366's effective date. Accordingly, Patent Owner intends to antedate Chu '366 if trial is instituted on Ground 1.

The Statute and accompanying Rules provide that administration of IPRs should "secure the just, speedy, and inexpensive resolution of every proceeding." 37 C.F.R. § 42.1(b); 35 U.S.C. § 316(b). Institution on Ground 1, which Petitioner admits is "largely identical" to Ground 2, would run contrary to these goals. *Liberty Mutual Insurance Company v. Progressive Casualty Insurance Company* CBM2012-00003, Paper 7 (Representative Order) at 2.

By Petitioner's own admission, the two Grounds presented are redundant. Since Petitioner asserts Ground 2 is superior due to Chen's earlier effective date, Petitioner's own admission dictates that Ground 1 should be denied as redundant to Ground 2.

C.   Chu '366 is not prior art under pre-AIA 35 U.S.C. 102(e)

In Ground 1, Petitioner asserts that "U.S. Patent No. 8,036,366 to Chu ("Chu '366") was filed on Aug. 4, 2006 and therefore qualifies as prior art... under 35 U.S.C. §102(e)." Petition at 10. But Chu '366 can only be prior art if it was "granted on an application for patent by another filed in the United States ***before***

the invention by the applicant for patent . . . ." 35 U.S.C. § 102(e) (emphasis

added). Chu '366 was not filed **before the invention by the** inventors of the '005

Patent.

Prior invention can be established by an actual reduction to practice before

the priority date. *Eaton v. Evans*, 204 F.3d 1094, 1097 (Fed. Cir. 2000). The

inventors of the '005 Patent reduced the claimed subject matter to practice before

Chu '366's filing date of August 4, 2006, having started a company in 2004 and

developed a system allowing calls to be placed between IP phones and between IP

phones and traditional phones. The system included four test "supernodes" that

were operating before August 4, 2006, one in London, UK, one in Dangaard,

Denmark, and two in the Vancouver, Canada area.

The system developed included a software and hardware platform that

received call initiation information and responded with call routing messages. This

platform was engineered, developed, tested, and validated before August 4, 2006,

and implemented a call routing controller, corresponding to the Routing Controller

16 illustrated in Fig. 1 of the '005 Patent and discussed in the specification.

All of the claims of the '005 Patent challenged in the Petition were practiced

by the inventors' system and call routing platform before August 4, 2006. Thus,

the inventors' actual reduction to practice preceded the filing date of Chu '366 of

August 4, 2006. Accordingly, Chu '366 is not prior art under 35 U.S.C. § 102(e).

If Ground 1 is instituted, Patent Owner intends to submit evidence such as computer source code, design documents, and corroborating communications establishing that well before the filing date of Chu '366, the inventors of the '005 Patent had reduced to practice the inventions recited in the challenged claims.

D.   The Petition is flawed and inadequate

Petitioner has the burden of explaining "with particularity" the specific evidence allegedly supporting each of the petition's challenges of the claims. 35 U.S.C. § 312(a)(3).   A petition must identify "[h]ow the construed claim is unpatentable" and "must specify where each element of the claim is found in the prior art patents or printed publications relied upon . . . ." 37 C.F.R. § 42.104(b)(4). The petition must also include a "full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence." 37 C.F.R. § 42.22(a)(2).

As discussed below, **only** the Petition's claim charts attempt to link the claim language to the cited references to explain "[h]ow the construed claim is unpatentable," but those explanations are terse and insufficient.

The failures of the Petition are not inconsequential. As explained *infra*, these shortcomings of the Petition and Declaration belie the insufficiencies of the references to render the claims unpatentable.

1.   **The claim charts fall well below the requirement to explain the grounds of unpatentability "with particularity"**

The entirety of Petitioner's attempt to link each element of Claim 1 to the teachings of the cited references is found in the claim charts.   Patent Owner understands that under the present Rules, it is not improper to include arguments in the claim charts, but the Rules cannot be read in a manner that excuses Petitioner from meeting their burden to provide a meaningful explanation with particularity of the grounds for challenging each claim.

The Petition's claim charts fail to carry Petitioner's burden.

a.   **The Claim Charts Do Not Explain How The References Teach All Claim Elements**

As discussed below at section II(E)(5)(a), Petitioner mistakenly interprets Chu '684's "subscriber" as being the "caller" recited in Claim 1(a). Petition at 17-18, 42-43. The "first participant" recited in Claim 74 is likewise misinterpreted. Petition at 25-26, 49-50. Chu '684's "subscriber" is an enterprise or corporation, not an individual user such as the "caller" of [1a]. *Infra* at II(E)(5)(a).   At minimum, Petitioner was required to explain "with particularity" how the evidence supports each of Petitioner's challenges of the claims (35 U.S.C. § 312(a)(3)), including explaining "where each element of the claim is found in the prior art patents or printed publications relied upon . . . ." 37 C.F.R. § 42.104(b)(4). The

Petition fails to explain how Chu '684's "subscriber" is the "caller" recited in [1a] or "first participant" in [74a].

Instead, the Petition incorporates by reference its Declarant's explanation. Petition at 18, 42 (citing Ex. 1009, ¶ 45). Even a cursory review of ¶ 45 shows that attempting to link Chu '684's "subscriber" to the "caller" recited in [1a] is a contorted path requiring inferences cobbled from multiple distinct portions of Chu '684 as well as an invocation of inherency. Ex. 1009, ¶ 45. Thus, Petitioner's own Declarant put Petitioner on notice that linking Chu '684's "subscriber" to the "caller" in [1a] was non-trivial and required substantial explanation. Yet, instead of complying with the requirements of 37 C.F.R. § 42.104(b)(4) to explain how [1a] is found in Chu '684, the Petition merely cites to the Declaration and summarizes Declarant's explanation in a parenthetical. Petition at 18, 42. Absent this improper incorporation by reference (*see* 37 C.F.R. § 42.6(a)(3)), the Petition fails the statutory requirement to explain "with particularity" how the evidence supports each of Petitioner's challenge of the claims. 35 U.S.C. § 312(a)(3). And even if Declarant's testimony is wholesale incorporated by reference, Chu '684's disclosure still does not meet the requirements of [1a]. *See infra* at II(E)(5).

> **b.** **The claim charts do not provide even *de minimis* analysis of Claims 25, 26, 49, 50, 73, 89, 92, 94, 95, 96, 98 and 99**

More egregious than the claim chart's shortcomings in discussing Claim 1, the claim chart's explanation for numerous claims is essentially non-existent. The

Petition asserts that 6 independent claims and 23 total claims are obvious. These various claims are directed to different concepts using different language. Yet the claim chart repeatedly incorporates by reference its analysis for other claims (namely, Claims 1 and 74), even when analyzing independent claims. The only independent claim fully addressed is Claim 1. Claim 74 is partly addressed–the first half of the claim by incorporation by reference to Claim 1, the second half by actual citation to the art. Independent Claims 26, 94 and 99 are addressed solely by incorporation by reference.

Regarding the claim chart's attack on independent Claims 26, 94, and 99 (and also dependent Claims 49, 95, 96, and 98) by mere reference to the analysis of Claims 1 and 74, the Board has held that such practice is insufficient to carry Petitioner's burden: "As the Federal Circuit has made clear, the Board cannot rely on conclusory statements by Petitioner that the same analysis applies without further explanation; rather, Petitioner must present 'particularized arguments explaining why its arguments . . . would be cross-applicable.' . . . conclusory statements implying that the same analysis for claim 1 also applies to independent claim 17 do not satisfy Petitioner's burden to demonstrate obviousness." *Nautilus Hyosung Inc. v. Diebold Inc.*, e IPR2016-00633, Paper 9 at 32 (P.T.A.B. Aug. 22, 2016) (*citing In re Magnum Oil Tools Int'l, Ltd.*, No. 2015-1300, 2016 WL 3974202, at *9 (Fed. Cir. July 25, 2016)) (internal citations omitted).

The present Petition is even more deficient than the one in *Nautilus*, because the present Petition doesn't even contain "conclusory statements implying that the same analysis for claim 1 also applies" to the other claims. Instead, the entirety of the claim chart's assertion of obviousness of Claims 26, 49, 94, 95, 96, 98, and 99 consists of incorporation by reference to the analysis of other claims. There is no consideration of claim language differences or claim constructions, and no explanation why these arguments are cross-applicable. As the Board in *Nautilus* held, such conclusory analysis is insufficient. *Magnum Oil*, 2016 WL 3974202 at *9. Thus, at a minimum, the Petition fails for these claims in which Petitioner chose to provide no analysis beyond a simple incorporation by reference.

For independent Claim 50 and dependent Claims 25, 73, 89 and 92, the claim charts address these solely by citing to one or more paragraphs in the Houh Declaration. The claim charts allude to the references generally, but without quoting the references and without identifying what text of the references is being relied upon. This is a fundamental failure of the Petition to explain "with particularity" how the evidence supports each of Petitioner's challenges of the claims (35 U.S.C. § 312(a)(3)) and to identify "where each element of the claim is found in the prior art patents or printed publications relied upon . . . ." 37 C.F.R. § 42.104(b)(4).

Instead, the Petition relies wholesale on Declarant's explanation of how the evidence supports Petitioner's challenge. But using a Declaration to satisfy statutory requirements of a Petition far oversteps the bounds limiting incorporation by reference in these proceedings. 37 C.F.R. § 42.6(a)(3); *see also* Fed. Reg. 77 at 48617 (Aug. 14, 2012) (citing *Globespanvirata, Inc. v. Tex. Instruments, Inc.*, 2005 WL 3077915, * 1 (D. N.J. 2005) as an example of improper incorporation by reference when a party "sought to make its case through incorporation of expert declaration and a claim chart."). Indeed, in a previous case Apple, was specifically warned against incorporating by reference to a supporting declaration:

> ***We decline to consider information presented in a supporting declaration***, but not discussed in a petition, because, among other reasons, doing so would encourage the use of declarations to circumvent the page limits that apply to petitions.
> *Apple Inc. v. Rensselaer Polytechnic Institute*, IPR2014-00077, Paper 14 at 5

(P.T.A.B. June 13, 2014). *See also Cisco Sys., Inc. v. C-Cation Techs., LLC*, IPR2014-00454, Paper 12 at 9-10 (P.T.A.B. Aug. 29, 2014).

Incorporation by reference in claim charts is no substitute for complying with the statutory requirement that the petition itself explain "with particularity" how the evidence supports each of Petitioner's challenges of the claims under 35 U.S.C. § 312(a)(3). As such, the claim charts fail to explain "with particularity" the alleged unpatentability of Claims 25, 50, 73, 89, and 92.

E. **Ground 1 fails because the combination of Chu '684 and Chu '366 does not disclose all claim elements and because the combination is not obvious**

1. **Chu '684 and Chu '366 are completely unrelated documents naming completely different inventors**

While the first named inventors of Chu '684 and Chu '366 share the same surname, they are two distinct individuals who worked for different companies in different locations. Chu '684 names inventor *Thomas P.* Chu of Englishtown, New Jersey, identifying Alcatel-Lucent as the assignee. Chu '366 names inventor *Lon-Chan* Chu of Redmond, WA, identifying Microsoft as the assignee. Thus, despite both being labeled "Chu," Chu '684 and Chu '366 are unrelated documents by unrelated individuals working at separate locations for unrelated entities.

2. **Overview of Chu '684**

Chu '684 discloses an architecture for providing voice over IP virtual private network (VoIP VPN) services to an organization ("subscriber") with multiple IP-PBXs, and a method of connecting the organization's IP-PBXs into a single logical network. *See* Chu '684 at 1:44-46, 3:52-56. The organization "subscribe[s] to many services" (e.g., both data and voice services) from the same service provider (SP). *Id.* at 5:3-6. FIG. 2 illustrates a subscribing customer's IP-PBX (i.e., multiple phones and a server 110 located at the subscribing customer's premises 105), which is configured to communicate with a soft-switch 220 and packet switch 210 located at the SP's central office 205:
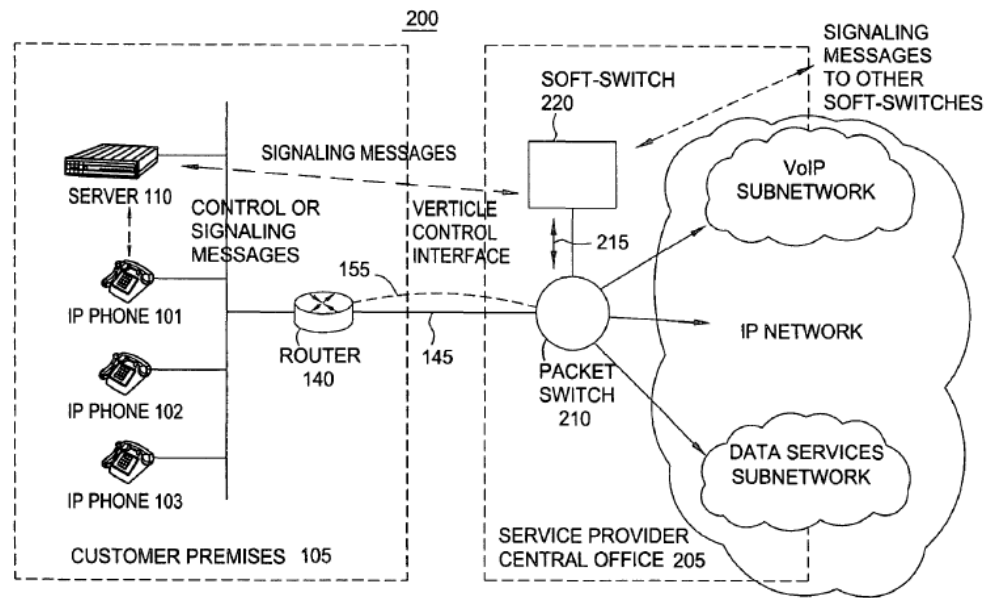
FIG. 2

While many organizations, each with multiple locations, may share the SP's

network infrastructure (e.g., soft-switch 220 and packet switch 210), the system of

Chu '684 allows each organization to have its own "dial plan" and allows calls to

be routed internally to the IP-PBX, to a different IP-PBX, and to the public

switched telephone network (PSTN). *See* Chu '684 at 12:60-67 and 8:65-9:1.

3.   Overview of Chu '366

Chu '366 discloses a method of formatting a dialed telephone number

according to the E.164 standard based on a "call origin location profile." *See* Chu

'366 at 1:62-2:14. A dialed number in Chu '366 can be formatted into the E.164

format based on the PSTN dialing conventions of a variety of geographic locations.

See Chu '366 at 2:16-28. Chu '366's method allows travelling users, initiating

VoIP telephone calls from different locations, to selectively adjust their dialing patterns to the location from which they are dialing. *See* Chu '366 at 5:3-14.

4.   The combination of Chu '684 and Chu '366 fails to render obvious meeting different "classification criteri[a]" as claimed

Claim 1 recites [1b] "when at least one of *said calling attributes* and at least a portion of a callee identifier associated with the callee *meet* private network classification criteria..." and [1c] "when at least one of said calling attributes and at least a portion of said callee identifier meet a public network classification criterion..."   Similarly, Claim 74 at [74b]-[74c] recites   "network classification criteri[a]."   The combination of Chu '684 and Chu '366 fails to render obvious the network classification criteria recited in the claims.

Petitioner argues: "Chu '684 determines whether the callee is a private packet network subscriber or a public PSTN customer (i.e., whether the call 'meets public network classification criteria' or 'private network classification criteria')." Petition at 19. Petitioner cites only a brief statement at 8:65-9:1 of Chu '684 to support this argument. No other portion of the Petition provides further explanation or citation to any of the asserted references in support of the references teaching "classification criteri[a]" as claimed.

While Chu '684 at 8:65-9:1 discloses "determin[ing] whether a call is local, to another on-net phone, or to a phone that is on the PSTN," this decision does not

involve <u>meeting classification criteria based on calling attributes</u>, as recited in [1b]-

[1c] and [74b]-[74c].

a. Chu '684 fails to disclose "*when … said calling attributes … meet … network classification criteri[a]*"

"[W]hen at least one of said <u>calling attributes</u> …" in [1b]-[1c] refers to [1a],

which recites, *inter alia*, "using a caller identifier … to locate … <u>calling attributes</u>

…." Thus the "classification criteri[a]" in [1b]-[1c] must be based on the step of

"using a caller identifier … to locate" in claim [1a] because features recited in [1b]-

[1c] find antecedent basis in step [1a]. "[A] claim 'requires an ordering of steps

when the claim language, as a matter of logic or grammar, requires that the steps

be performed in the order written, or the specification directly or implicitly

requires' an order of steps." *Mformation Techs., Inc. v. Research in Motion Ltd.*,

764 F.3d 1392, 1398 (Fed. Cir. 2014) (citations omitted).

The locating step of Chu '684 identified by Petitioner occurs after the

proposed classification step. Stated differently, Chu '684's "classifying" step is

distinct from the "classification criteri[a]" of [1b]-[1c] because Chu '684's

"classifying" step is not based on the "calling attributes" recited in Claim 1. Chu

'684's "classifying" is also distinct from the "classification criteri[a]" of [74b]-

[74c] because the "classifying" is not based on the "first participant attributes"

recited in Claim 74. Thus, the features do not satisfy the claims.

Petitioner cites a single sentence of Chu '684 (8:65-9:1) as disclosing "classification criteri[a]." Petition at 19-20; *see also id.* at 26-27 (referencing Claim 74). This sentence is in Chu '684's discussion of a determination made by the server *before* communicating with the soft-switch. Referring to the process depicted in FIG. 6, Chu '684 states:

> At step 608, 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. In this example, the call is to another on-net phone in another location. The server 110 then sends an SIP "invite" message to soft-switch 220 at the central office 205. [Chu '684 at 8:65-9:4, emphasis added]

Petitioner cites Chu '684 at 4:59-63, 9:30-33, 12:60-66, and 3:56-64 as teaching the step of "using a caller identifier … to locate." Petition at 17-18. But "consult[ing] the dial plan for this subscriber," cited in 9:30-33, relates to a dial plan lookup that occurs *after* the soft-switch 220 has been contacted:

> At 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.
>
> [Chu '684 at 9:30-33; quote in claim chart of Petition
> for step [1b] omits "At step 610"; emphasis added]

See also steps <u>608</u> and <u>610</u> in FIG. 6 of Chu '684, which, according to Petitioner, correspond to meeting "classification criteri[a]" and "using a caller identifier … to locate," respectively:
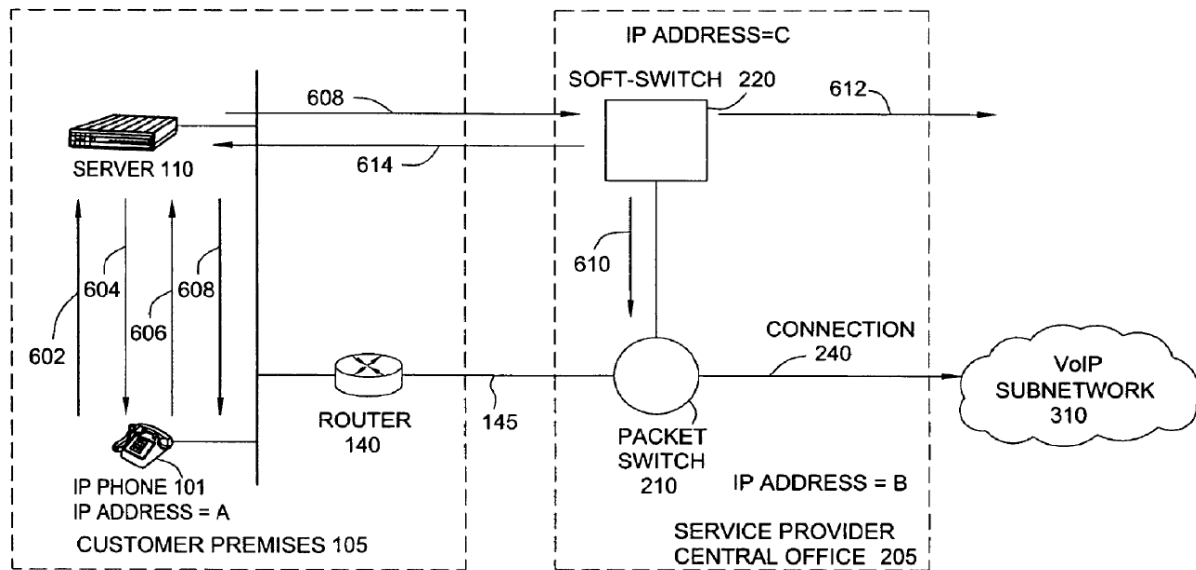
FIG. 6   <u>200</u>

The Petition relies on Chu '684's "classifying" step 608 of FIG. 6 for meeting claim steps [1b]-[1c]. But step 608 occurs *before* the "locating" step 610, which the Petition relies on for meeting claim step [1a]. That is, Chu '684 teaches that "classifying" step 608 is performed *before* any "locating" step. As discussed above, "classification criteri[a]" as recited in steps [1b]-[1c] is based on information determined in the preceding "using a caller identifier … to locate" step [1a]. Chu '684's "classifying" step 608 is not. Thus, Chu '684's "classifying" step 608 is distinct from [1b]-[1c] and [74b]-[74c].

Regarding [74c], Petitioner also refers to inter-VPN calls "between IP phones of different subscribers' networks" at 13:66-14:21, but fails to provide any evidence that this feature relies on network classification criteria at Chu '684's server 110. Petition at 27. Indeed, Chu '684 at 8:65-9:1 lacks any "classification criteri[a]" for inter-VPN calls between different subscribers.

b. Chu '366 fails to disclose "*network classification criteri[a]*" as claimed

Petitioner does not cite to Chu '366 in support of network classification criteria. Chu '366 discloses using call origin location profiles to format dialed telephone numbers, but does not disclose any classification of calls according to network type. Chu '366 lacks any private network call option, let alone "private network <u>classification criteria</u>" as required by [1b]. All calls in Chu '366 are assumed to be destined for the PSTN. Therefore, Chu '366 does not disclose "a public network <u>classification criterion</u>" as required by [1c]. Nor does Chu '366 describe "first network classification criterion" *and* "second network classification criterion" as in [74b]-[74c].

c. The proposed combination of Chu '684 and Chu '366 not only fails to satisfy "classification criteri[a]" as claimed, but would not work

As established above, neither Chu '684 nor Chu '366 disclose routing the call based on "classification criteri[a]" as in [1b]-[1c] and in [74b]-[74c]. Petitioner does not cure these deficiencies by proposing that Chu '684 be combined with Chu

'366 because Petitioner's proposed combination not only fails to practice these elements, it actually renders Chu '684 unsuitable for its intended purpose.

Petitioner specifically argues in its claim chart that Chu '366's "reformatting" steps would be combined with Chu '684 by inserting "reformatting" *before* what has been identified as classification in [1b]-[1c]: "Once the callee identifier is reformatted, Chu '684 determines . . . ." Petition at 19 (emphasis added). However, this combination fails to satisfy [1b]. Specifically, [1b] recites "when at least one of said calling attributes … meet private network classification criteria." In contrast, Chu '366 discloses *only* the reformatting of public telephone numbers according to the E.164 standard, *not* private numbers. Chu '366's system does not even disclose private numbers.

Petitioner overlooks the fact that Chu '684 discloses the use of *private telephone numbers* from a "private numbering scheme" (or "private numbering plan") for placing private network calls. This "private numbering plan" is distinct from, and works in parallel with, the "public E.164 number plan" used for placing calls using public telephone numbers. For example, Chu '684 includes information about "whether the number plan is the private numbering plan *or* the public E.164 number plan." Chu '684 at 9:16-17 (emphasis added); *see also id*. at 16:50-54 ("dialed digits" may be a "private number from a private numbering scheme" *or* a

"public telephone number") and 13:8-9 (distinguishing between the "private telephone number" and "E.164" public number of a particular IP phone).

Chu '684 thus discloses that private numbers follow a numbering scheme that is different from public numbers. There is no disclosure or suggestion in Chu '684 that a private telephone number would follow PSTN conventions such as using an "area code." A skilled person would understand that the purpose of using a "private numbering scheme" within an organization is precisely to be free from the strictures of PSTN dialing conventions.

Petitioner fails to address how private telephone numbers in Chu '684's system would be affected by Petitioner's proposed combination with Chu '366.

Petitioner's proposal to insert Chu '366's "reformatting" prior to Chu '684's "classification" of a call would render Chu '684's system unreliable. The resulting combination would invalidly reformat *private* telephone numbers (based on an organization's internal "private numbering plan") in the same manner as *public* telephone numbers (compatible with the public E.164 number plan) are reformatted in Chu '366. A private number that was reformatted would either be rejected by Chu '684's classification method as invalid or interpreted incorrectly as a public number or different private number than was intended.

Thus, Petitioner's proposed combination of Chu '684 and Chu '366 would undermine the "private numbering plan" calling functionality of the Chu '684

system or would render it inoperative. Consequently, Petitioner's proposed modification to Chu '684 fails to meet the standard for a legal finding of obviousness. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984) (finding no suggestion or motivation to make a modification to the prior art invention that caused it to be unsatisfactory for its intended purpose).

While the '005 Patent discloses a mechanism for private network classification using a reformatted number (e.g., step 269 in Fig. 8B), there is no comparable disclosure in either Chu '684 or Chu '366. Chu '366 discloses formatting that is valid *only* for public switched telephone network calls and does not contemplate the possibility of a private network number or of routing over a private network. Chu '684 discloses private numbering as distinct from public numbering, but fails to disclose the use of reformatting in either case. Petitioner relies on impermissible hindsight (i.e., Patent Owner's disclosure in the '005 Patent) to combine incompatible features from Chu '684 and Chu '366 because only knowledge of the '005 patent's disclosure and Claims 1 and/or 74 would provide the guidance to combine these two distinct references in a manner that meets the "classification criteria" recited in [1b]-[1c] and [74b]-[74c].

Because Petitioner failed to appreciate that Chu '684 allows private network calls to be placed by dialing a private telephone number from a private numbering

plan, Petitioner's proposed manner of combining Chu '366 and Chu '684 would render the Chu '684 system unsuitable for its intended purpose.

Since neither Chu '684 nor Chu '366 individually disclose [1b] or [1c] and the proposed combination doesn't lead to [1b] and[1c], Ground 1 cannot establish Claim 1 unpatentable.

d. **Petitioner fails to show how the proposed combination of Chu '684 and Chu '366 discloses a "second portion not controlled by the entity" as recited in [74c]**

Sections II(E)(4)(a-c) *supra* explain that Petitioner's proposed combination of Chu '684 and Chu '366 fails to lead to elements [74b]-[74c]. In addition, the Petitioner's claim chart arguments for [74c] fail.

Petitioner asserts that the recited "first portion [of the network] controlled by an entity" in [74b] is met by a "callee... on the same... network [as is] serving the caller" (or when "the callee is local"), and that "second portion not controlled by the entity" in [74b] is met by a callee on a "different" or "separate" network, e.g., a different LAN, than the caller. Petition at 26-27, citing Chu '684 at 8:65-9:1 ("step 608" at server 110).

Petitioner assumes that a different "entity" controls each "network" (e.g., LAN) in Chu '684. But one "subscriber" can control networks at multiple locations, see *infra* II(E)(5)(a)(i). *Id.* at 1:10-13; 1:44-45; 3:55-67; 14:38-57. Thus, Petitioner fails to establish that the server 110's classification, at step 608, is

a disclosure of a call to "a second portion... not controlled by the entity" as recited

in [74c]. *See, e.g., id.* at 12:59-60, 15:23-42 and FIG. 15.

Thus, Petitioner fails to show *how* or *why* the teachings of Chu '684 and Chu

'366 combine to provide all the limitations recited in Claim 74, and, hence, does not

carry its burden to establish a *prima facie* case of obviousness.

5. **The combination of Chu '684 and Chu '366 fails to render obvious "using a caller identifier … to locate a caller dialing profile" as recited in [1a] and "using a first participant identifier to locate a first participant profile" as recited in [74a]**

Element [1a] recites: "using a caller identifier associated with the caller to

locate a caller dialing profile comprising a plurality of calling attributes associated

with the caller." Element [74a] recites: "using the first participant identifier to

locate a *first participant* profile . . . ." Petitioner fails to establish that Chu '684

discloses a *participant/caller dialing profile*, and indeed, has misinterpreted Chu

'684 as disclosing a *user-specific* (rather than *enterprise-specific*) "dial plan." Nor

does Petitioner explain how to apply Chu '366's teaching of a *user-specific* "call

origin location profile" to Chu '684's *enterprise-wide* "dial plan."

a. **Petitioner fundamentally misinterprets the dial plans of Chu '684 as being *user-specific* instead of *enterprise-specific***

Petitioner asserts that Chu '684 teaches a *caller dialing profile*. But

Petitioner's argument relies on a mischaracterization of Chu '684. Petitioner's

assertions about the nature of subscriber dial plans in Chu '684 are unsupported by

any teaching in Chu '684 and contradict Chu '684's clear teachings. As explained

below, including information such as E.164 telephone numbers within a dial plan

is neither disclosed by Chu '684 nor desirable when the term "subscriber" in Chu

'684 is properly understood.

i. Petitioner misinterprets the word "subscriber" in Chu '684

Petitioner's arguments rely on the false premise that the term "subscriber" in

Chu '684 refers to an individual phone user. However, Chu '684 uses the term

"subscriber" to refer to an *enterprise* or *corporate entity* that controls one or more

local IP-PBX systems, and <u>not</u> to an individual person. When Chu '684 refers to

an individual, it uses the term "user."

Chu '684 *never* states that a "*subscriber*" places or answers calls. Rather, all

of Chu '684's calling examples disclose the "*user*" of an IP phone placing or

receiving calls: the *user* "picks up the handset" (8:51-52), receives the dial tone

(8:58-59), provides the "dialed digits" (8:60-63), is "alerted" of an incoming call

(11:1-2), and "picks up" the phone (11:13-17). *Id.*

In contrast, Chu '684 explains that a "subscriber" is associated with multiple

IP-PBX systems, multiple IP addresses, and multiple phones:

> The VoIP VPN service <u>connects **all** the IP-PBXs of **a subscriber**</u> <u>into</u>
> <u>a **single** logical network</u>. In one embodiment, the present invention
> provides a <u>virtual private network service</u> where **subscribers** can use
> their own **internal** dial plan. [...] Similarly, a **subscriber** can use

their own IP address assignment plan in assigning <u>IP address**es** to the</u>

<u>IP-PBX server and the IP phone**s**</u>.

[*Id.* at 3:55-58, 61-64 emphasis added]

Accordingly, each "subscriber" controls not just a *single* phone, but rather an

entire "virtual private network" which could include multiple inter-connected IP-

PBX *systems*, each comprising an "IP-PBX server" and "IP phone**s**" (plural) that

are assigned respective "IP address**es**" (plural) based on the subscriber's "own IP

address assignment plan." *Id.*; *see also* 12:55-57.

FIG. 2 is an example of one such IP-PBX system at one particular location

(i.e., customer premises 105), the IP-PBX system including a server 110 and

multiple phones 101-103. *Id.*; *see* FIG. 2 (below) and Chu '684 at 4:24-33.
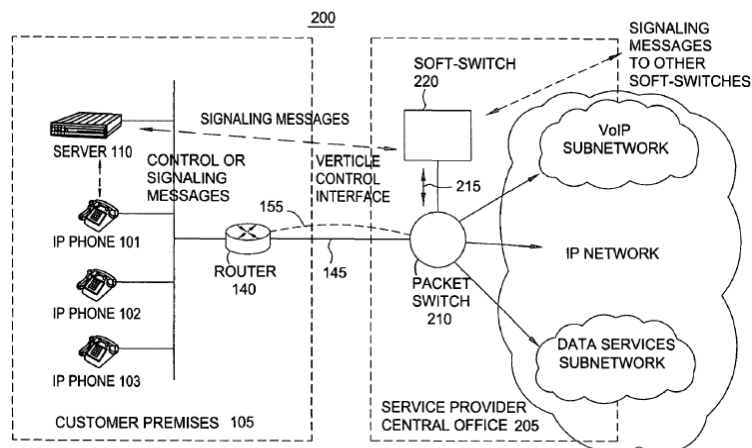
FIG. 2

Moreover, Chu '684 repeatedly discloses that a single "subscriber" controls

multiple "<u>locations</u>" (like Customer Premises 105), each location having its own

respective IP-PBX interconnected via the SP's infrastructure to other IP-PBXs to

form an enterprise-wide corporate network. *Id.*, *see* 1:44-45; 3:66-67

("[c]onnecting IP-PBXs together to form a **corporate network**"); 12:37-38

("Multiple location**s** from the **same subscriber** may be connected to the same

packet switch 210"); 12:59-60 ("establishing a call between **two** IP phone**s** at **two**

location**s** of the **same subscriber**"); 12:64-65; and 15:22-23 ("FIG. 15 depicts... a

call between **two** location**s** on the **same subscriber**..."). (emphasis added).

Thus, the term "subscriber" in Chu '684 represents an *enterprise* that

controls all of the phones within an IP-PBX network of the enterprise, <u>not</u> an

individual person. Chu '684 uses a different term to refer to an individual: "user."

Petitioner misinterpreted Chu '684's "subscriber" as an individual phone *user*.

This led to Petitioner misinterpreting Chu '684's disclosure that each "subscriber"

has their *own* "dial plan" to mean that each caller of a subscriber has a unique

identifier in the caller's *own* "dial plan":

> *Chu '684 teaches using a <u>subscriber's identifying information (e.g.,</u>*
> *<u>the subscriber's E.164 telephone number</u>) ("a caller identifier") to*
> *access a dial plan that includes calling attributes of the subscriber.*
>
> > [*Id*. at 17, 28, 42 and 52; italics in original; underlining added]
>
> ... Chu '684 must necessarily use unique <u>subscriber-specific</u>
> information in addition to the server ID to identify the <u>caller's dial</u>
> <u>plan</u>. Such <u>subscriber-specific</u> information would be the <u>subscriber's</u>

E.164-compliant telephone number, globally unique database key, or

the like.

[Declaration at ¶ 45]

Chu '684's disclosure that each enterprise ("subscriber") has its own

"*internal* dial plan" (*id.* at 3:58), is not a disclosure of a *user-specific* "dial plan."

Rather, Chu '684 discloses that subscribers have multiple IP phones that share a

common "dial plan." Chu '684 nowhere discloses that *different* users or phones

would have their own *unique* dial plan, and Petitioner's assertion to the contrary is

in error. By failing to recognize that Chu '684's "dial plan" is *enterprise-wide*, not

user-specific, Petitioner *invented* a new feature: a *unique* caller identifier being

associated with a caller's *own* dial plan.

ii.   Petitioner invents a non-existent feature in Chu '684 to resolve a contradiction in its interpretation of Chu '684

Chu '684 discloses that a "dial plan" can be identified from the ID of the

server 110, however, as shown in FIG. 2, each server is associated with *multiple* IP

phones 101-103. *Id.* at 9:31-33. By equating "subscriber" with the user of a

particular phone, Petitioner is forced to infer that each server would be required to

utilize *multiple* dial plans, but Chu '684 does not describe such features. Thus,

Petitioner *invents* the notion that there must necessarily be *additional* information

besides a server ID that is used to identify a dial plan, including an ID unique to a

phone.   Petition at 22, 42 (citing Declaration at ¶ 45).   Declarant at ¶ 45

misinterprets Chu '684, noting that an apparent contradiction arises between the

use of a *single* server ID to identify a "dial plan" and the fact that *multiple users*

(which Declarant incorrectly refers to as "subscribers") use the same server:

> For example, Chu '684 teaches that <u>each subscriber is assigned</u> their
> own dial plan, <u>a unique IP address</u>, and <u>a unique E.164-compliant</u>
> <u>telephone number</u>. Ex. 100[3], Chu '684 at 3:56-64. Chu '684
> expressly notes that a subscriber's dial plan can be determined "from
> the ID of the server," ***but*** also teaches that <u>multiple subscribers may</u>
> <u>use the same server</u>. *Id*. at 9:30-33 and 4:25-28.
>
> [Declaration at ¶ 45, emphasis added]

Declarant misinterprets Chu '684 by combining different portions that, when read

in context, do <u>not</u> provide the alleged teachings.

The first sentence in the above quote cites to 3:56-64 of Chu '684, which

merely discloses that each "subscriber" has an "*internal* dial plan" and can assign

each IP phone its own E.164 number and its own IP address:

> In one embodiment, the present invention provides a virtual private
> network service where <u>subscribers can use their own internal dial</u>
> <u>plan</u>. This does not preclude <u>each IP phone from being assigned its</u>
> <u>own E. 164 number</u> (the international standard dial plan) and
> receiving calls from the PSTN directly. Similarly, <u>a subscriber can use</u>
> <u>their own IP address assignment plan in assigning IP addresses to the</u>

IP-PBX server and the <u>IP phones</u>. The VoIP VPNs from all the subscribers share a common physical network.

[*Id.* at 3:55-65; emphasis added]

Declarant's second sentence cites to 9:30-33 and 4:25-28 of Chu '684:

At 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.

[*Id.* at 9:30-33]

The system 200 comprises a Customer Premise 105 having a plurality of IP phones (101, 102, 103) and a server 110 connected to a VoIP-VPN SP at the SP's central office 205.

[*Id.* at 4:25-28; *see also* FIG. 2]

The above passages are not unclear and do not create the contradiction asserted by Declarant in the Declaration at ¶ 45.

First, Chu '684 does <u>not</u> teach that "each subscriber is assigned ... a unique IP address." Rather, Chu '684 teaches that "a subscriber can use their own <u>IP address assignment plan</u> in assigning IP addresses." *Id.* at 3:61-64; *see also* 2:19-23, and 13:4-6 ("...the subscriber can use... its own private IP addressing scheme").

Second, Chu '684 does <u>not</u> teach that "each subscriber is assigned ... a unique E.164-compliant telephone number." Rather, Chu '684 teaches that each *phone* is assigned such a number. *Id.* at 3:59-60; *see also* 13:3-9 and 14:56-60. As discussed above, each subscriber in Chu '684 has multiple phones. *Id*. at FIG. 2; *see also 3:55-56*.

Third, Chu '684 at 4:25-28 does <u>not</u> teach that "multiple *subscribers* may use the same server," but rather that multiple *phones* (101, 102, 103 in FIG. 2) may use the same server. *Id*. at 4:25-28 and FIG. 2 (shown above); *see also* 1:23-24. Again, each subscriber in Chu '684 has multiple phones.

Petitioner's argument expressly relies upon these erroneous conclusions in its claim chart, citing the Declaration at ¶ 45 for support. *See* Petition at 18 and 42.

Since there is only a single server 110 per subscriber location, <u>the server ID alone is sufficient to identify a dial plan shared by all phones associated with the server</u>. *Id.* at 9:30-33; *see also* 4:59-63 and 10:43-47 (a dial plan lookup can also be based on a *subscriber's* VPN-ID). There is no suggestion in Chu '684 that each phone has its own dial plan, let alone a dial plan that includes a unique ID specific to a phone (*e.g.*, an E.164 telephone number).

In Chu '684, a "subscriber" (an entity, e.g., a corporation), having one or more IP-PBX systems (*Id*. at 3:55-56), each including an IP-PBX server and multiple phones (*Id*. at Fig. 2), is associated with a "dial plan" (*Id*. at 9:30-33).

Multiple phones of a subscriber use the *same* dial plan. Chu '684 does not disclose using a *phone-specific* or *user-specific* identifier to identify a dial plan. Rather, Chu '684 discloses identifying the subscriber's dial plan by using the IP-PBX server ID or a subscriber's VPN-ID, neither of which are user-specific. *Id*. at 9:30-33, 4:59-63 and 10:43-47.

It is not necessary to contradict the explicit statements of Chu '684 (as has Declarant) to explain Chu '684. When the word "subscriber" is properly understood, Chu '684 is internally consistent and, as explained below, does not describe the features recited in the claims.

b. **Apart from Petitioner's misinterpretation, Chu '684's consulting a subscriber "dial plan" is distinct from "using a caller identifier … to locate a caller dialing profile" as recited in [1a] and "using a first participant identifier to locate a first participant profile" as recited in [74a]**

Petitioner's misinterpretation of Chu '684 has led to a cascade of shortcomings of the Petition. The Petition does not show that a "dial plan" in Chu '684 possesses the features of a "<u>caller</u> dialing profile," as in [1a] or a "first participant profile" as in [74a]. Chu '684's "dial plan" is not associated with any particular "caller," but rather with the *enterprise*. Also, Petitioner does not demonstrate that the "dial plan" includes any "calling attributes <u>associated with the caller</u>," as in [1a]. Finally, the Petition does not identify *any* specific "calling attributes" that Chu '684 uses in a "dial plan."

As discussed above, Chu '684 discloses that a "dial plan" is shared by multiple phones on a subscriber's IP-PBX network; it is not associated with any particular phone or phone user. Consequently, Chu '684's disclosure of a "dial plan" is not a disclosure of a "<u>caller</u> dialing profile" as in [1a] or "<u>first participant</u> profile" as in [74a].

Further, [1a] recites that the "caller dialing profile" includes "<u>a plurality of calling attributes</u>" and [74a] recites that the "first participant profile" includes "a plurality of attributes." The Petition merely asserts that Chu '684's "dial plan" contains "attributes of the caller," but, notably, fails to identify any specific "calling attributes" with reference to Chu '684. Petition at 11 and 37 ("... <u>Chu '684 discloses using attributes of the caller</u> (e.g., the caller's dial plan)...") (emphasis added).

Declarant is likewise unable to identify any specific "calling attributes" that would be in Chu '684's "dial plan" based on an express disclosure of Chu '684. Instead, Declarant speculates that Chu '684's "dial plans" are "subscriber-specific" *for the purpose of* "includ[ing] subscriber-specific information such as... area codes." Declaration at ¶ 37. This inference is undermined by Declarant's misunderstanding that a "subscriber" is a *user* (i.e., a subscriber-specific dial plan is *enterprise*-specific).

Petitioner's sole argument regarding the content of the "dial plan," which cites the Declaration at ¶ 45, is that Chu '684 inherently discloses "unique subscriber-specific information such as an E.164 telephone number" as part of a "dial plan." But this argument too is based on a series of misinterpretations of Chu '684 by Declarant. Declarant assumed that Chu '684's "subscriber" was an individual, and failed to recognize that Chu '684's "subscriber" is an enterprise or corporation that subscribes to the virtual private network (VPN) services of a VPN "service provider" (SP). *Compare* Declaration at ¶45 *with* Chu '684 at 5:3-6.

For all these reasons, Chu '684 fails to disclose [1a] or [74a].

c. The proposed combination of Chu '684 and Chu '366 likewise fails to disclose "using a caller identifier … to locate" as recited in [1a] and "using a first participant identifier to locate" as recited in [74a]

i. Chu '684's enterprise "dial plan" is incompatible with Chu '366's individual call origin location profile

As discussed above, Chu '684 discloses that a "dial plan" is shared by a group of users on a subscriber's IP-PBX network. In contrast, Chu '366 discloses "call origin location profiles" for multiple geographic locations from which a specific user may place VoIP telephone calls. The teachings of these two patents are incompatible, as it is unclear how to combine a caller-specific call origin location profile with an enterprise's IP-PBX network-specific "dial plan."

Indeed, Petitioner's Declarant acknowledged that the way in which Chu '684 discloses identifying a (group) "dial plan" is incompatible with the way in which an individual caller's dial plan or dialing profile would need to be identified: "Chu '684 expressly notes that a subscriber's dial plan can be determined 'from the ID of the server' . . . ." Declarant at ¶ 45 (citing Chu '684 at 9:30-33). Attempting to rationalize this incompatibility, Declarant states: "***but*** [Chu '684] also teaches that multiple subscribers may use the same server . . . . Accordingly, one of skill in the art would understand that the system described by Chu '684 must necessarily use unique subscriber-specific information in addition to the server ID to identify the caller's dial plan." *Id.* (citing Chu '684 at 4:25-28) (emphasis added). However, this conclusion is in error because Chu '684 only teaches that multiple *phones* may use the same server, not that multiple *subscribers* may use the same server. *See supra* II(E)(5)(a).

ii. Petitioner fails to explain how Chu '684's enterprise network "dial plan" would be modified based on Chu '366's teaching

Because of Petitioner's fundamental misinterpretation of Chu '684, discussed above, Petitioner does not explain *how* to combine the disparate teachings of Chu '684 and Chu '366. Thus, Petitioner fails to carry its burden to establish a *prima facie* case of obviousness.

Petitioner does not explain how Chu '366's teaching of a *user-specific* "call origin location profile" could be applied to Chu '684's *IP-PBX network-specific* "dial plan" or what modifications to Chu '684's system would be required.

For example, Petitioner doesn't explain *how* to modify Chu '684's method of identifying a dial plan from the ID of the server to a method of identifying a dial plan that is specific to an individual user. *Compare* Declaration at ¶ 45.

Applying the teachings of Chu '366 to modify Chu '684's system would also require coordinated changes among multiple pieces of equipment (e.g., the subscriber's IP-PBX server 110 and the SP's soft-switch 220), to permit the components of Chu '684's system to continue to work together once the methods of Chu '366 were applied. Petitioner fails to recognize that these modifications would be required, much less how it would have been obvious to make them.

6. **Petitioner fails to articulate a proper reason to combine the references and overlooks reasons why the combination is undesirable**

Petitioner fails to provide articulated reasoning with some rational underpinning to support the legal conclusion of obviousness as required by *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). In particular, Petitioner fails to provide facts, data, or plausible reasoning that would explain *why* a skilled artisan would have combined Chu '684 and Chu '366 to arrive at the claimed features.

Petitioner fails to explain how the proposed combination improves Chu '684 based on the teaching of Chu '366. The Petition contains only a single, conclusory sentence of explanation that ascribes to Chu '684, without evidentiary basis, a shortcoming that Chu '366 might improve. Petitioner's reason to combine does not originate from either reference, but is instead an unsupported artificial construct. Finally, Petitioner's misunderstanding of Chu '684 obscures reasons why the proposed combination is *undesirable*, thereby undermining the conclusion of obviousness.

a. The Petition's Cursory Reason to Combine Chu '684 and Chu '366 is Insufficient

The Petition at pages 15-16 discusses combining Chu '684 and Chu '366. But Petitioner's proposed motivation to combine is mentioned in only a single sentence of page 16.

Page 15 of the Petition only avers that there is "significant overlap between Chu '684 and Chu '366." The Petition states that "both references teach telecommunication systems in which VoIP subscribers can place calls to a customer on the public PSTN" and "[b]oth references expressly reference E.164 as an international standard dial plan." Petition at 15. Such general allegations merely assert that the two references are in the "same technological field." But being in the same field of endeavor alone is insufficient to support a motivation to combine references—"it is merely the jumping-off point" in an obviousness

determination. *Unified Patents, Inc. v. William Grecia,* IPR2016-00789, Paper 8 at

12 (P.T.A.B. Sept. 9, 2016) (citing *K-TEC, Inc. v. Vita-Mix Corp.*, 696 F.3d 1364,

1375 (Fed. Cir. 2012)). Nothing on page 15 provides an actual reason to combine

Chu '684 and Chu '366.

Further, Petitioner's alleged similarity is factually incorrect. Chu '684 does

not use "caller attributes" to determine call routing. *See supra* II(E)(5). And

neither reference uses "caller attributes" in the manner claimed. *See id*.

On page 16, the Petition alleges that the proposed modification would be

"straightforward" and would yield "predictable results" without "undue

experimentation." *Id*. This does not explain *why* one of ordinary skill would want

to make the modification in the first place. Further, these allegations are incorrect

given Petitioner's misunderstanding of Chu '684 (see *supra* II(E)(5)(a)) and how

the proffered combination with Chu '366 renders the combination inoperable (see

supra II(E)(4)(c)).

The only sentence in the Petition proposing *why* one of ordinary skill would

want to modify Chu '684 in view of Chu '366 is at page 16:

> Upon reading the disclosure of Chu '684, a person of ordinary skill in
> the art 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. 1009**, *Houh Decl.* at ¶¶ 35-39.

This is a far cry from the articulated reasoning required under *KSR Int'l Co.*
Petitioner fails to mention which *parts* of the disclosure of Chu '684 the skilled
person would want improved by a "more intuitive and user-friendly interface" and
wholly omits any mention of how Chu '366 provides this improvement.

Rather than citing Chu '684 or Chu '366, Petitioner cites the Declaration at
¶¶ 35-39. These paragraphs are Declarant's entire argument alleging the claims are
obvious over Chu '684 and Chu '366. That is, the Petition relies on Declarant's
entire obviousness argument, not simply further details of motivation to combine
references. This wholesale reliance on Declarant's obviousness arguments
amounts to an improper incorporation by reference of the Declaration. *See* 37
C.F.R. § § 42.6(a)(3); *see also Apple Inc. v. Rensselaer Polytechnic Institute*,
IPR2014-00077, Paper 14 at 5 ("***We decline to consider information presented in
a supporting declaration, but not discussed in a petition***")(emphasis added).

Even if, *arguendo*, it were permissible to incorporate all Declarant's
arguments into the Petition, none of these arguments elucidate Petitioner's sole
"reason to combine" Chu '684 with Chu '366. Declarant's argument closely
parallels the arguments of the Petition, and includes the same sentence asserted in
the Petition as the reason to combine:

> Upon reading the disclosure of Chu '684, a person of ordinary skill in
> the art 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. **Ex. 1009**, *Houh Decl.* at ¶ 38 (emphasis added).

The Declaration, just like the Petition, fails to cite to any evidence in Chu

'684 or Chu '366 supporting this assertion. Thus, as with the Petition, this

unsupported statement does not provide an articulated reasoning with rational

underpinnings to explain why the references would be combined.

Declarant argues that Chu '684 suffers from the alleged deficiency of "[not]

allowing users to place calls as if they were dialing from a standard PSTN phone."

See Declaration ¶ 38; *see also* Petition at 16. But Declarant and Petition cite

nothing in Chu '684 for support. Likewise, the Declaration does not cite to Chu

'684 or provide articulated reasoning to explain why Chu '684's system is not

"intuitive" or "user-friendly." Declaration ¶ 38. Contrary to 37 C.F.R.

§ 42.104(b), page 16 of the Petition does not cite to any specific teaching in Chu

'684 or Chu '366 for the proffered rationale. The closest parallel in the

Declaration, ¶ 38, also fails to contain a single citation to the references. Declarant

testimony that does not disclose the underlying facts or data should be entitled to

little or no weight. 37 C.F.R. § 42.65(a). Thus, the motivation asserted in the

Petition and Declaration does not originate from the references, but from

Petitioner's and Declarant's own artificial construct. Thus, the Petition and

Declaration fail to provide adequate rational underpinning for why Chu '684 and

Chu '366 would be combined to meet the processes of Claims 1 or 74.

b. <u>Petitioner reads into Chu '684 a problem identified in Chu '366, but there is no evidence that Chu '366's problem is relevant to Chu '684</u>

Chu '366 discloses that, when that patent was filed, Internet-based VoIP

service providers imposed special limitations on dialing, which Chu '366 purports

to ease, especially for users that travel to multiple destinations. *See* Chu '366 at

1:44-58, 2:1-4, and 5:3-16. However, there is no suggestion in <u>Chu '684</u> that its

users faced any such constraints.

Moreover, Chu '684 discloses very different network architecture than Chu

'366. *Compare* Fig. 10 of Chu '366 *with* FIG 2. of Chu '684 (below).
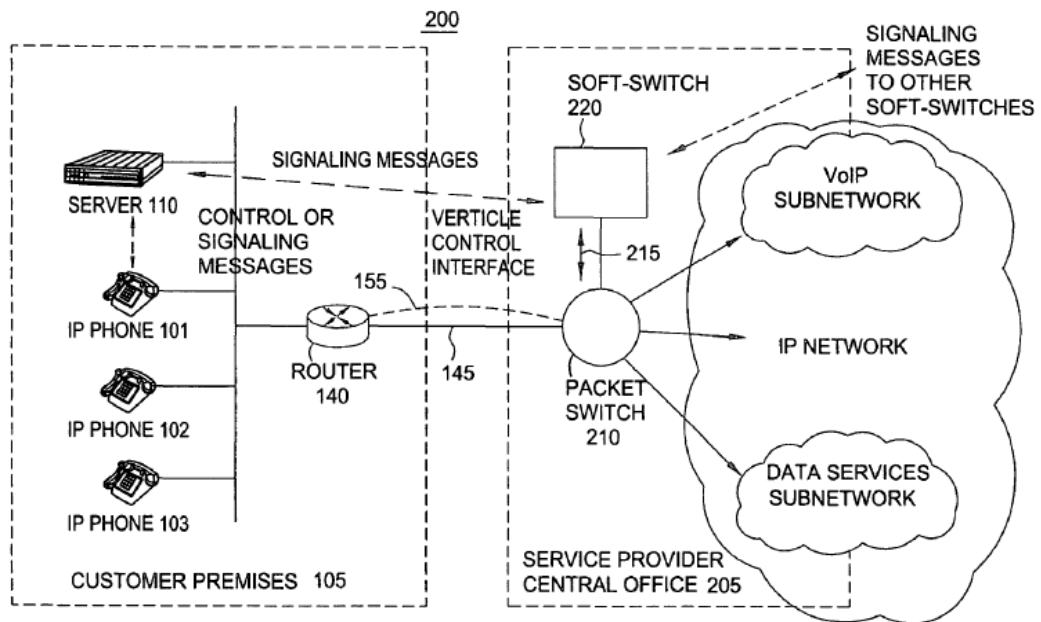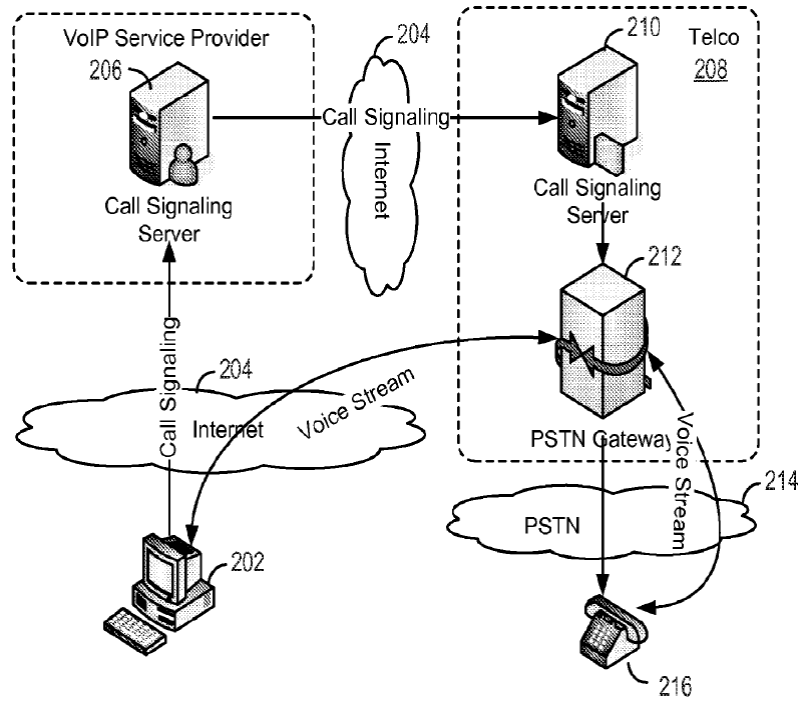
Fig. 10

FIG. 2

Chu '684 does not disclose a VoIP system that directly connects over the Internet to global VoIP service providers for connectivity, as described in Chu '366. In Chu '684, calls are made via an IP-PBX server 110 on a shared local area network (LAN). *Id.* at 1:20-25, 14:1; *see also* FIGS. 1 and 14a. Thus, IP phones in Chu '684 are associated with a particular location (customer premises 105), unlike the location-unaware prior art that Chu '366 criticizes. Chu '366 at 1:44-58.

Chu '366 set out to address the problem of requiring users to enter "fully formatted E.164 telephone numbers," even when making a local call, including a "+" sign, "then the country code, then the area code, then the telephone number" which arises when the user's calling location is variable and unknown. Chu '366 at 1:44-58. In Chu '684's system the IP phone locations are known and assigned location-based PSTN numbers. *See* Chu '684 at 13:1-4 (disclosing assignment of a block of PSTN telephone numbers, e.g., "<u>732</u>-949-xxxx," where "732" is the New Jersey area code of the patent's assignee). Thus Chu '684 does not face the shortcomings of the Internet-based "global VoIP service providers" that Chu '366 set out to address. Chu '366 is trying to solve Internet-based telephony problems that are inapplicable in the IP-PBX network context of Chu '684, especially given the very different architecture and call setup functionalities of the two systems.

In effect, Petitioner invents a non-existent defect in Chu '684's system as the basis to combine the references. This cannot fulfill the requirement to provide

<u>rational underpinning</u> to support Petitioner's assertion of a motivation to combine.

See KSR Int'l Co., 550 U.S. at 418.

c. <u>The proposed reason to combine Chu '684 and Chu '366 would not lead to the modifications asserted by Petitioner</u>

Even accepting on its face Petitioner's proposed reason to combine Chu '684 and Chu '366, this proposed reason would not lead to the combination of references asserted in the Petition.

The Petition's claim chart is the only specific identification of how Chu '684 and Chu '366 would be combined. The claim chart states that the reformatting step of Chu '366 would be performed *before* the classifying step of Chu '684's server 110. Petition at 19 ("Once the callee identifier is reformatted, Chu '684 determines..."). But the Petition does not explain why the dialed digits would not be reformatted at the server *after* the classification step, or be reformatted at the soft-switch 220, at the PSTN gateway 1302, or even in telco equipment downstream of the PSTN gateway. The Petition states "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 …." *Id.* at 16. However, "the system" of Chu '684 includes a variety of programmable components, none of which are identified in the Petition as part of the motivation to combine. Only reference to the '005 Patent and its claims would lead a skilled person to select the specific arrangement of elements recited in Claims 1 and 74.

But the use of the claims as the blueprint for combining references constitutes impermissible hindsight. *In re McLaughlin*, 443 F.2d 1392, 1395 (C.C.P.A. 1971).

Petitioner also fails to explain why a skilled artisan would create "intuitive" and "user-friendly" PSTN dialing by *adding* reformatting to Chu '684 or would even want to *use* reformatting to solve the alleged problems in Chu '684.

d. Petitioner's misreading of Chu '684 obscures why it would be undesirable to combine Chu '684 and Chu '366

Petitioner's misreading of Chu '684 leads Petitioner to overlook several technical, administrative, and usability reasons that a skilled person would have appreciated make it *undesirable* to apply the teachings of Chu '366 in Chu '684.

Chu '684's "dial plan" applies to all users of an enterprise's IP-PBX system. *See supra* II(E)(5)(a-b). Thus, there is no need for user-specific dial plans. The dial plan simply could be configured to allow all user phones at a particular customer premises to dial based on customary dial conventions associated with the customer premises location. *See* Chu '684 at 8:65-9:17.

Furthermore, *user*-specific dial plans would be undesirable in Chu '684's *enterprise* product, as they could: (1) increase administrative complexity of the corporate phone system; (2) allow inconsistent dialing rules across the enterprise; (3) increase technical support demands; and/or (4) create confusion (e.g., if shared phones, such as in conference rooms, were misconfigured).

Thus, technical, administrative, and usability <u>benefits</u> accrue in Chu '684 by utilizing a single dialing plan for phones across the enterprise. Once Chu '684's teachings of an enterprise dial plan are understood, Petitioner's obviousness argument is implausible, as it would *not* be obvious for a skilled person to modify Chu '684's "dial plan" so as to undermine its *enterprise*-friendly design.

Thus, the Petition should be denied with respect to all Challenged Claims.

F. <u>Ground 2 fails because the combination of Chu '684 and Chen does not disclose all claim elements and because the combination is not obvious</u>

1. <u>Overview of Chen</u>

Chen discloses a communication method for placing phone calls using a fixed dial plan. Chen at [0002]. The method allows traveling users to place calls in a familiar manner in any region or country. *Id.* at [0014]. The method provides translation functions from a dial plan ("dial plan A") familiar to the user to a different dial plan ("dial plan B"), not familiar to the user but understood by a PSTN Telco switch that uses a different regional or countrywide dial plan. *Id.* at [0014], [0025], and [0026]. The method involves: receiving a dialing number; transforming this number into an E.164 format number (e.g., as shown in FIG. 6); and transforming the E.164 number into a final dialing number understood by the Telco switch (e.g., FIG. 7). *Id.* at [0016]; *see also* FIGS. 6-7, and claim 1 of Chen.

2. The combination of Chu '684 and Chen fails to render obvious meeting different "classification criteri[a]" as recited in the claims

Claim 1 recites [1b] "when at least one of *said calling attributes* and at least a portion of a callee identifier associated with the callee meet private network classification criteria" and [1c] "when at least one of said calling attributes and at least a portion of said callee identifier meet a public network classification criterion." Similarly, Claim 74 at [74b]-[74c] recites "network classification criteri[a]." The combination of Chu '684 and Chen fails to render obvious the classification criteria recited in these claim elements.

a. Chu '684 fails to disclose "*when … said calling attributes … meet … network classification criteri[a]*"

As described above in section II(E)(4)(a), the meeting of "classification criteri[a]" in steps [1b]-[1c] of Claim 1 must occur after "using a caller identifier … to locate" in step [1a] because "calling attributes" recited in steps [1b]-[1c] find antecedent basis in step [1a]. Petitioner identifies a feature of Chu '684 as corresponding to "classifying" in steps [1b]-[1c], namely, the server 110 determining (step 608 of FIG. 6) whether a call is local, to another on-net phone, or to a PSTN phone. Petition at 44, *citing* Chu '684 at 8:65-9:1. Petitioner identifies another feature of Chu '684 as corresponding to "locating" in step [1a], namely, the soft-switch 220 "consult[ing] the dial plan for this subscriber" (step 610 of FIG. 6). *Id.* at 44, citing Chu '684 at 9:30-33. However, Petitioner's "locating"

step of Chu '684 occurs *after* Chu '684's "classifying" step, contrary to Claim 1.

Stated differently, Chu '684's "classifying" step is distinct from the application of

"classification criteri[a]" in [1b]-[1c] because Chu '684's "classifying" step is not

based on the calling attributes recited in Claim 1. Chu '684's "classifying" is also

distinct from the "classification criteri[a]" of [74b]-[74c] because the "classifying

is not based on the "first participant attributes" recited in Claim 74. Thus, these

elements cannot be met by the server 110. Nor are the claimed elements taught by

the discussion of inter-VPN calls in Chu '684. *See* II(E)(4)(a).

b. Chen fails to disclose "network classification criteri[a]" as recited in the claims

Chen fails to disclose "network classification criteria" as in [1b]-[1c], and

Petitioner does not argue otherwise.

Chen discloses translations between dial plans to allow a calls to be dialed

according to a familiar dial plan, but the destination is *always* in the PSTN. Chen

at [0005] ("A telephone number is... used to identify the destination in a PSTN.");

see also Abstract (mentions "PSTN" four times); FIGS. 1-2 and 4-5 mention

"PSTN" and/or "Telco Switch"; and claim 1 ("PSTN telecommunication switch").

Chen lacks any private network call option, and therefore lacks "private

network classification criteria" as required by claim [1b]. All calls in Chen are

assumed to be destined for the PSTN; therefore Chen also lacks "a public network

classification criterion" as required by [1c]. Chen further lacks "first" or "second"

"network classification criterion" as recited in [74b]-[74c].

c. Petitioner's proposed combination of Chu '684 and Chen not only fails to practice "classification criteri[a]" as recited in the claims, but would not work

As established above, neither Chu '684 nor Chen disclose "classification

criteri[a]" as in [1b]-[1c] or in [74b]-[74c]. Combining Chu '684 with Chen does

not cure these deficiencies because Petitioner's proposed combination fails to meet

these elements and also renders Chu '684 unsuitable for its intended purpose.

Petitioner specifically argues in its claim chart that the "reformatting" of

Chen would be inserted *before* the alleged step of "classifying" in Chu '684. *See*

Petition at 43 ("<u>Once the callee identifier has been reformatted</u>, Chu '684

determines..."; emphasis added). However, the combination fails to meet the claim.

Specifically, [1b] recites "when at least one of said calling attributes … meet

<u>private</u> network classification criteria." But the dialing string "reformatting" of

Chen applies only to *public* telephone numbers. Chen does not use private

numbers.

Furthermore, Petitioner overlooks Chu '684's disclosure of using *private

telephone numbers* from a "private numbering scheme" to place private network

calls. *See supra* II(E)(4)(c) and Chu '684 at 9:16-17; 16:50-54; and 13:8-9.

Petitioner's proposal to insert Chen's "reformatting" prior to Chu '684's "classification" of a call would render Chu 684's system unreliable. Petitioner's combination would corrupt *private* telephone numbers (based on an organization's internal "private numbering plan") by reformatting them in the same manner as Chen reformats *public* telephone numbers. A reformatted private number would either be rejected by Chu '684's "classification" as invalid or interpreted incorrectly. Thus, Petitioner's proposed combination with Chen undermines the "private numbering plan" calling functionality of Chu '684 and renders the Chu '684 system unsuitable for its intended purpose. Such a combination cannot support a legal finding of obviousness. *In re Gordon*, 733 F.2d at 900.

While the '005 Patent discloses private network classification using a reformatted number (e.g., step 269 in Fig. 8B), Chu '684 and Chen have no comparable disclosure. Chen discloses formatting that is valid *only* for PSTN calls and does not contemplate private network calls or private network numbers. Chu '684 discloses private numbering, as distinct from public numbering, but does not disclose the use of reformatting for either.

Only the '005 Patent's disclosure and claims provide the guidance to combine these two distinct references to meet the "classification criteria" recited in [1b]-[1c] and [74b]-[74c], but this is impermissible hindsight. *In re McLaughlin*, 443 F.2d at 1395.

Neither Chu '684 nor Chen individually disclose [1b] or [1c], and the combination also doesn't lead to [1b] or [1c] being obvious. Thus, Ground 2 cannot establish Claims 1 and 74 unpatentable.

d. Petitioner fails to show how the proposed combination of Chu '684 and Chen discloses a "second portion not controlled by the entity" as recited in [74c]

As discussed in II(E)(4)(d), Petitioner assumes that an "entity" only controls one "network" but in fact an enterprise "subscriber" can control networks (e.g., LANs) at *multiple* locations. Since neither Chu '684 nor Chen individually disclose [74b]-[74c] and the proposed combination doesn't lead to [74b]-[74c], Ground 2 cannot establish Claim 74 unpatentable.

3. The combination of Chu '684 and Chen fails to render obvious "using a caller identifier … to locate a caller dialing profile" as recited in [1a] and "using a first participant identifier to locate a first participant profile" as recited in [74a]

Element [1a] recites: "using a caller identifier associated with the caller to locate a caller dialing profile comprising a plurality of calling attributes associated with the caller." Element [74a] recites: "using the first participant identifier to locate a *first participant* profile...."

As described in section II(E)(5) *supra*, the Petition (1) fails to establish that Chu '684 discloses a *first participant/caller dialing profile*; (2) misinterprets Chu '684 as disclosing a *user-specific* "dial plan"; and (3) fails to explain how to

combine Chen's *user-specific* dial plan with Chu '684's *enterprise-specific* dial plan.

a. Petitioner fundamentally misinterprets the dial plans of Chu '684 as being *user-specific* instead of *enterprise-specific*

Referring to [1a], Petitioner asserts:

Chu '684 teaches using a <u>subscriber's identifying information</u> (e.g., the subscriber's E.164 telephone number) ("a caller identifier") to access a dial plan that includes calling attributes of the subscriber. [Petition at 42]

Petitioner's whole argument is premised on a fundamental *mis*understanding of the term "*subscriber*" in Chu '684, leading to a misunderstanding of the nature of a "dial plan" in Chu '684, which ultimately leads Petitioner to falsely assert that a "dial plan" in Chu '684 necessarily includes a "E.164 telephone number." Chu '684, in fact, contradicts these views. Once Chu '684 is correctly understood, Petitioner's interpretations and arguments crumble.

i. Petitioner misinterprets the word "subscriber" in Chu '684

Petitioner's arguments rely on the false premise that the term "subscriber" in Chu '684 refers to an individual phone user. However, Chu '684 uses "subscriber" to refer to an *enterprise* or *corporate entity* that controls one or more IP-PBX systems, <u>not</u> to an individual person.

1. Chu '684 refers to individuals by the term "user." Chu '684 *never* states that a "*subscriber*" places/answers calls, but gives examples of a "*user*" placing/receiving calls: see *id* at 8:51-63, 11:1-2, 11:13-17.

2. Chu '684 explains that each "subscriber" may have a VPN including multiple interconnected IP-PBX *systems*, each including an "IP-PBX server" and "IP phone**s**" (plural) that are assigned respective "IP address**es**". *Id.* at 3:55-64. FIG. 2 shows an IP-PBX system at one location (105) *Id.*, *see* FIG. 2 (below) and Chu '684 at 4:24-33.
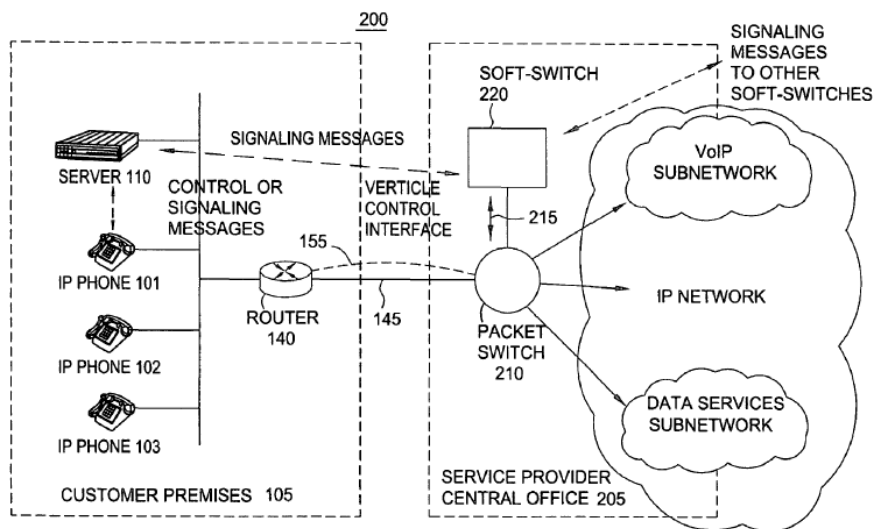

FIG. 2

3. Chu '684 repeatedly discloses that a "subscriber" controls multiple "<u>locations</u>" (e.g.,105), each having its IP-PBX interconnected to other locations to form an enterprise-wide "corporate network." *Id.*, *see* 1:44-45; 3:66-67; 12:37-38; 12:59-60; 12:64-65; and 15:22-23.

Thus, the term "subscriber" in Chu '684 represents an *enterprise* that controls all of the phones within an IP-PBX network, <u>not</u> an individual user.

Petitioner misinterprets subscriber's dial plans in Chu '684 as being *user* dial plans that include a user identifier (e.g., phone number):

> *Chu '684 teaches using a subscriber's identifying information (e.g., the subscriber's E.164 telephone number) ("a caller identifier") to access a dial plan that includes calling attributes of the subscriber.*
>
> [Id. at 17 and 42; see also Declaration at ¶ 45]

ii.   **Petitioner invents a non-existent feature in Chu '684 to resolve a contradiction in its interpretation of Chu '684**

Chu '684 nowhere discloses that users have their own dial plans, or that a dial plan contains an "E.164 telephone number". Rather than citing to Chu '684 to support this proposition, Petitioner cites to Declarant at ¶ 45. Because Declarant fails to recognize that a "dial plan" in Chu '684 is *enterprise-wide*, not *user-specific*, Declarant rejects Chu '684's disclosure that a "dial plan" can be determined from a "server ID." Instead, Declarant alleges that a *unique* caller identifier must be associated with a *particular* caller's dial plan. Declaration at ¶ 45. Here, Declarant conflates *subscriber* with *user* and makes other errors, as explained in section II(E)(5)(a). Declarant misinterprets Chu '684 as follows:

1. Chu '684 does <u>not</u> teach that "each subscriber is assigned ... a unique IP address," but that "a subscriber can use their own <u>IP address assignment plan</u>" Id. at 3:61-64; *see also* 2:19-23, and 13:4-6.

2. Chu '684 does <u>not</u> teach that "each subscriber is assigned ... a unique E.164-compliant telephone number," but that each *phone* is assigned such a number. *Id.* at 3:59-60; *see also* 13:3-9 and 14:56-60. As discussed above, each subscriber has multiple phones. *Id*. at FIG. 2; *see also* 3:55-56.

3. Chu '684 at 4:25-28 does <u>not</u> teach that "multiple *subscribers* may use the same server," but that multiple *phones* (101-103 in FIG. 2) may use the same server. *Id*. at 4:25-28 and 1:23-24, FIG. 2. Again, each subscriber has multiple phones.

Since there is only one server 110 per subscriber location, <u>the server ID alone is sufficient to identify a dial plan shared by all phones associated with the server</u>. *Id.* at 9:30-33. It is unnecessary to contradict Chu '684's disclosure (as has Declarant). When "subscriber" is properly understood, Chu '684 is internally consistent and, as explained below, does not disclose the claimed features.

b. **Apart from Petitioner's misinterpretation, Chu '684's consulting a subscriber "dial plan" is distinct from "using a caller identifier … to locate a caller dialing profile" as recited in [1a] and "using a first participant identifier to locate a first participant profile" as recited in [74a]**

As discussed in section II(E)(5)(a), Chu '684 discloses that a "dial plan" is shared by multiple phones on a subscriber's IP-PBX network, and is not associated with any particular caller. Thus, Chu '684's disclosure of a "dial plan" is not a disclosure of a "<u>caller</u> dialing profile." Nor does Chu '684 disclose any "calling attributes <u>associated with the caller</u>," as in [1a], or a "first participant profile comprising a plurality of attributes" as in [74a].

c. **The proposed combination of Chu '684 and Chen likewise fails to disclose "using a caller identifier … to locate" as recited in [1a] and "using a first participant identifier to locate" as recited in [74a]**

i. **Chu '684's enterprise "dial plan" is incompatible with Chen's individual "fixed dial plan"**

Chu '684 discloses an *enterprise* "dial plan" for multiple users. Chen discloses a fixed dial plan translation for a user. The teachings of these two patents are incompatible: it is unclear how to combine a *user*-specific fixed dial plan with an *enterprise* "dial plan."

Indeed, the Declaration at ¶45 acknowledged that how Chu '684 discloses identifying a server's "dial plan" is incompatible with how an individual caller's

dial plan would need to be identified, but erroneously attempts to rationalize this

incompatibility, as described above in section II(E)(5)(a and c).

ii.   Petitioner fails to explain how Chu '684's network "dial plan" would be modified based on Chen's teaching

Due to Petitioner's misapprehension of Chu '684, Petitioner does not explain

how to combine the disparate teachings of Chu '684 and Chen, including:

1.   how to apply Chen's teaching of an *individual* "fixed dial plan" to Chu

'684's *enterprise-specific* "dial plan";

2.   how to modify Chu '684's method from <u>identifying a dial plan from</u>

<u>the ID of the server</u> to <u>identifying a dial plan for an individual user</u>;

3.   what coordinated changes are required to various pieces of equipment

(e.g., server 110 and soft-switch 220) to facilitate continued operation.

Petitioner does not even acknowledge that such modifications are required,

much less explain why it would have been obvious to make them. Petitioner fails to

explain *how* Chu '684 and Chen would be combined to provide [1a] or [74a], and

thus does not carry its burden to establish a *prima facie* case of obviousness.

4.   Petitioner fails to articulate a proper reason to combine the references and overlooks that the combination is undesirable

Petitioner fails to provide <u>articulated reasoning</u> with <u>rational underpinning</u> to

support the legal conclusion of obviousness. *KSR Int'l. Co.*, 550 U.S. at 418.

Petitioner fails to provide facts, data, or plausible reasoning to explain *why* a skilled artisan would have combined Chu '684 and Chen to arrive at the claims.

The Petition contains only a single, conclusory sentence of explanation that ascribes to Chu '684, without any evidentiary basis, a shortcoming that might be improved by Chen. But Petitioner's reason to combine does not originate from either reference, but instead is an unsupported artificial construct. Finally, Petitioner's misunderstanding of Chu '684 has obscured reasons why the proposed combination is *not* desirable, thereby undermining the conclusion of obviousness.

a. The Petition's Cursory Reason to Combine Chu '684 and Chen is Insufficient

The Petition at pages 39-41 discusses combining Chu '684 and Chen, but Petitioner's motivation to combine is only a single, conclusory sentence at page 40.

Pages 39-40 of the Petition allege "significant overlap between Chu '684 and Chen," but this "overlap" is identical to that described above for Chu '366, namely, being in the same field of endeavor (i.e., VoIP systems that can call the PSTN) or referencing the E.164 standard. *See supra* II(E)(6)(a). Being in the same field of endeavor alone is insufficient to support a motivation to combine references—"it is merely the jumping-off point" in an obviousness determination. *Unified Patents*, IPR2016-00789, Paper 8 at 12. Merely referencing a communications standard is not a plausible reason to combine references.

Further, Petitioner's alleged similarity is factually incorrect. As shown in section II(E)(5)(b), Chu '684 does not use "caller attributes" for call routing.

On page 40, Petitioner alleges the proposed modification would be "straightforward," "natural", based on "ordinary skill and common sense", to yield "predictable results" without "undue experimentation," but such allegations cannot substantiate *why* a skilled person would make the modification in the first place. *Id*.

Petitioner does not even say *which* of Chu '684's programmable components would be "programmed" and *how*. *Id*.

Furthermore, the proffered combination with Chen renders the combination inoperable (see *supra* II(E)(4)(c)).

The only sentence in the Petition proposing *why* one of ordinary skill would want to modify Chu '684 in view of Chen is at page 40:

> Upon reading the disclosure of Chu '684, a person of ordinary skill in the art 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. 1009**, *Houh Decl.* at ¶¶ 40-44.

This is a far cry from the articulated reasoning required under *KSR Int'l Co*.

Petitioner fails to identify any *part* of Chu '684 that the skilled person would improve by a "more intuitive and user-friendly interface" and omits any mention of

how Chen provides this improvement. Petitioner does not even cite to the references.

Instead, Petitioner cites to the Declaration at ¶¶ 40-44. These paragraphs are Declarant's entire argument alleging Chu '684 plus Chen render the claims obvious. That is, the Petition relies on Declarant's entire obviousness argument, not simply further details of motivation to combine references. This wholesale reliance on Declarant's obviousness arguments is an improper incorporation by reference of the Declaration. *See* 37 C.F.R. § § 42.6(a)(3). *Apple Inc.*, IPR2014-00077, Paper 14 at 5 ("We decline to consider information presented in a supporting declaration, but not discussed in a petition…").

Even if, *arguendo*, it were permissible to incorporate Declarant's arguments, none of these arguments elucidates Petitioner's sole "<u>reason to combine</u>" Chu '684 with Chen. Declarant merely copies the Petition's conclusory allegations, which do not cite to Chu '684 or Chen or provide articulated reasoning to explain why Chu '684's system is not "intuitive" or "user-friendly." Declaration ¶ 38. Contrary to 37 C.F.R. § 42.104(b), pages 40-41 of the Petition do not cite any specific teaching in Chu '684 or Chen for the proffered rationale. The closest parallel in the Declaration, ¶ 43, also fails to contain a single citation to the references. Declarant testimony that does not disclose the underlying facts or data should be entitled to little or no weight. 37 C.F.R. § 42.65(a).

Accordingly, the motivation asserted in the Petition and Declaration does not originate from the references, but from Petitioner's and Declarant's own artificial construct. Under 37 C.F.R. §§ 42.65(a) & 104(b), respectively, the Petition and Declaration fail to articulate a reason why Chu '684 and Chen would be combined to meet the process of Claims 1 or 74.

b. Petitioner reads into Chu '684 a problem identified in Chen, but Chen's problem is irrelevant to Chu '684

Chen discloses that "it is usually pretty tough for international travelers to figure out how to make phone calls in a new region or country", and discloses a "fixed dial plan" to allow "a user in any region or country [to] place phone calls in a familiar manner." Chen at ¶¶ 0013, 0015. Chen discloses an architecture in which various equipment (phone 501, PSTN gateway 502, or translator 505) may perform a dial plan translation to communicate with a Telco switch that does not understand the user's preferred dial plan, but only understands the dial plan of its particular region or country. *Id.* at ¶¶ 0025, 0029-0031; *see also* FIG. 5:
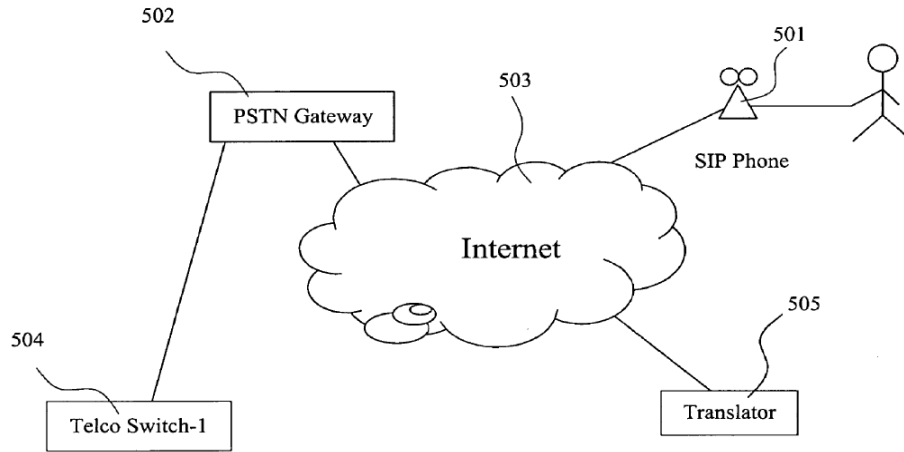
Fig. 5

Chu '684 has a different architecture than Chen. *See* FIG. 2:
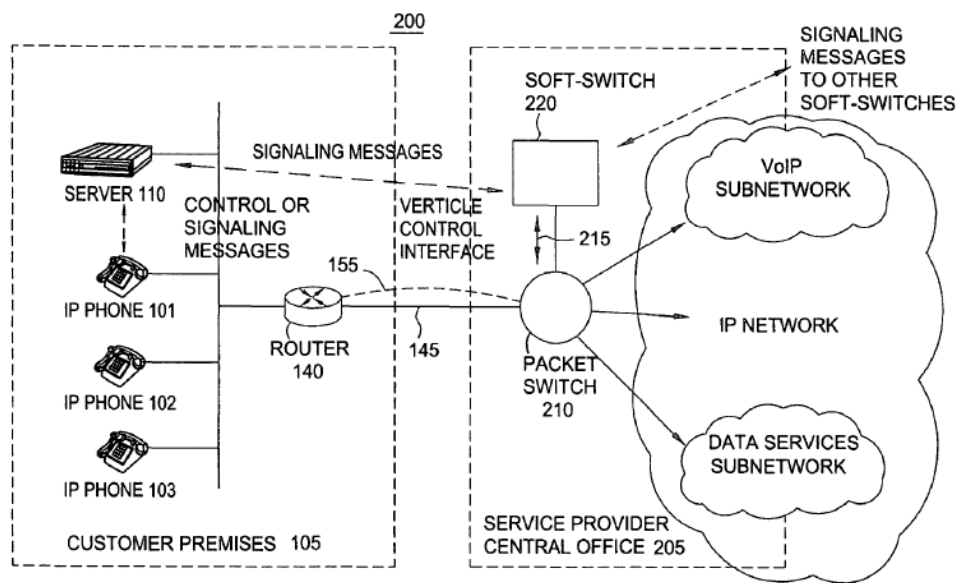

FIG. 2

Petitioner fails to explain *why* Chen's solution is even needed in Chu '684

given the differences in the problems faced by the two systems and their different

architectures.

There is no need in <u>Chu '684</u> to solve Chen's problem of international travel

to arbitrary regions. Rather, Chu '684's IP phones are configured to use a server

<u>over a LAN</u> at a *particular* location ("customer premises" 105).

Petitioner invents a non-existent defect in Chu '684's system as the basis to

combine the references. This cannot fulfill the requirements to provide rational

underpinning of a motivation to combine. *See KSR Int'l Co.*, 550 U.S. at 418.

c. <u>The proposed reason to combine Chu '684 and Chen would not lead to the modifications asserted by Petitioner</u>

Even accepting on its face Petitioner's proposed reason to combine Chu '684

and Chen, this proposed reason would not lead to the *specific* modification asserted

in the Petition. Petitioner's claim chart provides the only specificity of how

Petitioner proposes to combine Chu '684 and Chen. The claim chart states that the

reformatting step of Chen would be performed <u>*before*</u> the classifying step of Chu

'684's server 110. Petition at 43 ("Once the callee identifier is reformatted, Chu

'684 determines..."). But the Petition fails to explain why the dialed digits would

not be reformatted at the server <u>*after*</u> the classification step, or be reformatted at the

soft-switch 220, at the PSTN gateway 1302, or even in further downstream telco

equipment. Only reference to the '005 Patent and its claims would lead a skilled

person to select the specific arrangement recited in Claim 1. But using the claims

as the blueprint for combining references constitutes impermissible hindsight. *In

re McLaughlin*, 443 F.2d at 1395.

Petitioner also fails to explain why a skilled artisan would *add* reformatting or even want to *use* reformatting to solve the alleged problems in Chu '684.

d. Petitioner's misreading of Chu '684 obscures why it would be undesirable to combine Chu '684 and Chen

Petitioner's misreading of Chu '684 leads Petitioner to overlook reasons why it would be undesirable in Chu 684's *enterprise* context to use caller-specific dial plans, which could: (1) increase administrative complexity of the corporate phone system; (2) allow inconsistent dialing rules across the enterprise; (3) increase technical support demands; and/or (4) create confusion for shared phones (e.g., in conference rooms).

Once Chu '684's teachings of an *enterprise* dial plan are understood, Petitioner's obviousness argument is implausible, as a skilled person would not modify Chu '684's *enterprise* "dial plan" to lose the technical, administrative, and usability benefits of Chu '684's *enterprise-friendly* design.

Thus, the Petition should be denied with respect to all Challenged Claims.

III. CONCLUSION

The Petition fails to establish a reasonable likelihood that Claims 1, 24-26, 49-50, 73-79, 83-84, 88-89, 92, 94-96, 98, and 99 of the '005 Patent are unpatentable. Therefore the Board should not institute trial in this proceeding.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: September 21, 2016   By: /Kerry Taylor/

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CERTIFICATE OF COMPLIANCE

This document complies with the type-volume limitation of 37 C.F.R.
§ 42.24(a)(1)(i). This Preliminary Response contains 13,937 words, excluding the
parts of the document exempted by 37 C.F.R. § 42.24(a)(1).

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that true and correct copy of PATENT OWNER'S

PRELIMINARY RESPONSE TO PETITION FOR INTER PARTES REVIEW

and EXHIBIT 2001 is being served on September 21, 2016, via FedEx Priority

Overnight pursuant to 37 C.F.R. § 42.6(e) and as a courtesy via electronic mail, for

Petitioners as addressed below:

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