

**I. Comparison of Petition at pp. 15-17 (Ground 1)
With the Petition at pp. 39-41 (Ground 2)**

Petition at pp. 15-17 (Chu '684 + Chu '366 argument)	Petition at pp. 39-41 (Chu '684 + Chen argument)
<p>There is significant overlap between Chu '684 and Chu '366. Both references teach telecommunications systems in which VoIP subscribers can place calls to a customer on the public PSTN. <i>Compare Ex. 1006, Chu '684</i> at 8:65-9:1 (“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.”) <i>with Ex. 1007, Chu '366</i> at 14:30-33 (“[T]here is shown a system for communications between a computing environment 202 including the application program according to the present system and a PSTN telephone 216.”).</p> <p>Both references also teach a process in which dialed digits and caller attributes are used to determine where the call should be routed. <i>Compare Ex. 1006, Chu '684</i> at 8:65-9:1 (“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.”) <i>with Ex. 1007, Chu '366</i> at Fig. 6.</p>	<p>There is significant overlap between Chu '684 and Chu '366Chen. Both references teach telecommunications systems in which VoIP subscribers can place calls to a customer on the public PSTN. <i>Compare Ex. 1006, Chu '684</i> at 8:65-9:1 (“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.”) <i>with Ex. 1007, Chu '366 at 14:30-33 (“[T]here is shown</i> <u>1008, Chen at Fig. 5 (Illustrating a system for communications between a computing environment 202 including the application program according to the present system</u> VoIP customer “SIP Phone,” external number Translator, “PSTN Gateway, and a PSTN telephone 216.Switch). Both references also teach a process in which dialed digits and caller attributes are used to determine where the call should be routed. <i>Compare Ex. 1006, Chu '684</i> at 8:65-9:1 (“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.”) <i>with Ex. 1007, Chu '3661008, Chen</i> at Fig. 6.</p>

Finally, both references expressly reference E.164 as an international standard dial plan. *Compare Ex. 1006, Chu '684* at 3:59-61 (“[E]ach IP phone [may be] assigned its own E.164 number (the international standard dial plan) and receiving calls from the PSTN directly.”) *with Ex. 1007, Chu '366* at 1:18-20 (“E.164 [] provides a uniform means for identifying any telephone number in the world to any telephony user in the world.”).

It would have been obvious to one of skill in the art to modify the system described by *Chu '684* with the specific dialed digit reformatting teachings of *Chu '366*. Given that the system of *Chu '684* already contains all the infrastructure needed to support such reformatting, the modification to *Chu '684* would be straightforward, not requiring undue experimentation, and would produce predictable results. Upon reading the disclosure of *Chu '684*, a 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.

Finally, both references expressly reference E.164 as an international standard dial plan. *Compare Ex. 1006, Chu '684* at 3:59-61 (“[E]ach IP phone [may be] assigned its own E.164 number (the international standard dial plan) and receiving calls from the PSTN directly.”) *with Ex. 1007, —Chu '366*~~1008~~, *Chen* at ~~1:18-20~~ ¶ ~~006~~ (“E.164 [~~]~~ ~~provides a uniform means for identifying any telephone number in the world to any telephony user in the world~~ is an ITU-T (International Telecommunication Union Telecommunication Standardization Sector) recommendation that defines the international public telecommunication numbering plan.”).

It would have been obvious to one of skill in the art to modify the system described by *Chu '684* with the specific dialed digit reformatting teachings of ~~*Chu '366*~~ *Chen*. Given that the system of *Chu '684* already contains all the infrastructure needed to support such reformatting, the modification to *Chu '684* would be straightforward, not requiring undue experimentation, and would produce predictable results. Upon reading the disclosure of *Chu '684*, a 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~~ 40-44.

One of ordinary skill would thus have appreciated that these improvements to *Chu* '684 could be achieved by merely programming the system of *Chu* '684 to analyze the dialed digits and reformat as necessary using caller attributes such as national and area code. Such modifications are simply a combination of the system of *Chu* '684 with elements of *Chu* '366 that would have yielded predictable results without requiring undue experimentation. *Id.* at ¶ 38. Thus, it would have been natural and an application of nothing more than ordinary skill and common sense to combine *Chu* '684 with the number reformatting of *Chu* '366. *Id.* Therefore, the Challenged Claims are unpatentable under §103(a) as obvious over *Chu* '684 in view of *Chu* '366, as shown in the charts below.

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**II. Comparison of Petition at pp. 17-36 (Ground 1)
 With the Petition at pp. 41-60 (Ground 2)**

Right-hand column compares:

*the claim chart for Chu '684 + Chu '366 (Ground 1) with
 the claim chart for Chu '684 + Chen (Ground 2).*

*Red strikethrough represents text in Ground 1, but not in Ground 2.
 Blue underline represents text in Ground 2, but not in Ground 1.*

[underlining in original omitted]

<p align="center">US Patent 9,179,005</p>	<p align="center">Obvious over Chu '684 (Ex. 1003) in view of Chu '366<u>Chen</u> (Ex. 1004<u>1005</u>)</p>
<p>1. A process for producing a routing message for routing communications between a caller and a callee in a communication system, the process comprising:</p>	<p><i>Chu '684 teaches producing a routing message for routing telephone calls (“communications”) between callers and callees in a telecommunications system.</i></p> <p>Chu '684 describes “a novel method for establishing and managing voice call traffic in an VoIP IP virtual private network” including “determining one or more IP addresses to egress the communication from the originating point to the terminating point.” Ex. 1006, <i>Chu '684</i> at 2:34-44.</p> <p>“An apparatus for IP-based VPN communications includes at least one soft-switch and at least one packet switch having an interface to said at least one soft-switch. The packet switch has a VPN processing module for selectively establishing a VPN based on a selection of originating and terminating IP addresses of voice calls passed to the at least one soft-switch and at least one packet switch. . . . The apparatus may further include a PSTN gateway connected to a gateway soft-switch and said at least one soft-switch for processing “off-net” calls.” <i>Id.</i> at 2:51- 64; <i>see also id.</i> at 1:9-13.</p>
<p>(a) using a caller identifier associated with the caller to locate a caller dialing profile comprising a</p>	<p><i>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.</i></p>

<p>plurality of calling attributes associated with the caller;</p>	<p>“The soft-switch is the intelligence of the system. It contains all the information regarding the subscribers' VPNs. For example, it keeps track of the VPN that a location belongs to, the dial plans of the subscribers, the VPN identifier for an VPN (or a particular interface) and the like.” <i>Id.</i> at 4:59-63.</p> <p>“[U]pon 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.” <i>Id.</i> at 9:30-33.</p> <p>“Many subscribers, each with multiple locations, can be served by the same packet-switch/soft-switch network. Each subscriber can use their the [sic] own IP address plan as well as their own dial plan.” <i>Id.</i> at 12:60-66; <i>see also id.</i> at 3:56-64 (noting each IP phone can be assigned its own E.164 number and IP address); Ex. 1009, <i>Houh Declaration</i> at ¶ 45 (noting that because multiple subscribers can be associated with a single server, a subscriber’s dial plan, in addition to an ID of the server, must necessarily include unique subscriber-specific information such as an E.164 telephone number, globally unique database key, or the like).</p> <p><i>Additionally, Chu ’366Chen teaches <u>establishing a caller dial plan that users may set up “call origin profiles” that include calling includes attributes of the calling party such as geographic location, country code, and area code.</u></i></p> <p>Ex. 1007, Chu ’366 at 2:9-15 (describing call origin location profiles); 1008, Chen at ¶ 0033 (describing dial plan); see also id. at Fig. 6 (illustrating the caller’s country code and area code prepended to dialed digits to create an E.164 compliant number).</p>
<p>(b) when at least one of</p>	<p><i>As illustrated in Fig. 8B of the ’005 Patent, an initial</i></p>

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