UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Bright House Networks, LLC,
WideOpenWest Finance, LLC,
Knology of Florida, Inc.
Birch Communications, Inc.
Petitioners

v.

Focal IP, LLC,
Patent Owner

Patent No. 8,457,113 B2
Filing Date: Jun. 22, 2010
Issue Date: Jun. 4, 2013

BRANCH CALLING AND CALLER ID BASED CALL ROUTING
TELEPHONE FEATURES

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**Petition for *Inter Partes* Review of
U.S. Patent No. 8,457,113 B2**

Inter Partes Review No. [_____]

even recite call features. A year later, that application was allowed and the '113 patent issued on June 4, 2013. *Id.*, 15.

However, it was well-known and standard practice to implement subscriber-selected call features using intelligent servers located within, or coupled to centralized "switching facility[ies]" in the PSTN. §V.E; TLP ¶¶77–78.

C. Claim Construction Under 37 C.F.R. § 42.104(b)(3)

Claim terms construed during *inter partes* review are given their broadest reasonable interpretation (BRI). 37 C.F.R. §42.100(b). Claim terms that are not construed are to be given their plain and ordinary meaning to a POSA at the time of the claimed invention when read in light of the specification and file history. Petitioners believe the terms in the challenged claims are readily understood by a POSA in light of the specification and file history and have applied them in accordance with their plain and ordinary meaning. Petitioners provide additional explanation of a POSA's understanding where relevant.

D. A POSA's Level of Skill in the Art

A POSA is a hypothetical person of ordinary creativity presumed to be aware of all pertinent prior art and thinking along conventional wisdom. For the '113 patent, a POSA would have been an engineer or computer scientist with at least a bachelor's degree, or equivalent experience in electrical engineering, or a related field, and at least three years of industry experience in the fields of analog

geographical hierarchy, where tandem switches serve to interconnect geographical regions and edge switches connect between tandem switches and end-user devices, like telephones, within a local area. TLP ¶53; EX1037, 64-69, 106-13, 119-22, 137-38, Fig. 4-4, 111; EX1001, 1:42-51.

In the traditional Bell telephone system of the 1980s, edge switches were operated by local telephone service providers. TLP ¶54; EX1037, 59-62, 90-92, 97-100, 106-13. Calls that were required to be routed to tandem switches for connection to other edge switches were known as long-distance calls and generally incurred a toll. TLP ¶55; EX1037, 64, 106-13.

3. Call Components—Signaling and Media

Traditional telephone calls consisted of two distinct parts—signaling and media. TLP ¶56; EX1037, 131-36, Fig. 8-1, 133. The signaling portion was used for call setup and feature selection, and the media portion consisted of the actual voice traffic. *Id.*; TLP ¶57; EX1051, 9-12, 22-25. Once a telephone was answered, the call accept signal was used to finalize the path, or circuit, over which the voice traffic (i.e. media) of the call traveled. TLP ¶57; EX1037, 95-102, Fig. 3-8, 101, 131-35; EX1027, 9-10. Signaling protocols, such as Signaling System 7 (SS7), were used in parallel to notify the switches of a completed call. TLP ¶58–59; EX1027, 1.

4. PSTN Call Features and Intelligent Networks

subscriber access to the database anytime, such as over the Internet. EX1003, 7:44-50. Archer further teaches that end-user devices, such as computers (*e.g.*, 134b) can use web browsers. EX1003, 8:2-11. Web browsers are software that allow users to view web pages provided on the Internet by web servers. EX1003, 8:8-10, TLP ¶80; EX1049, 124-27. As a result, a POSA would be motivated to combine Archer's database (138) and server processor (128) with a web server and web-enabled processor to allow subscribers to change their call forwarding settings in database (138) over the Internet at any time and to satisfy the commercial pressures driving services online during the "Dot.Com" boom. TLP ¶117.

(iv) **Ground 2:** To the extent the Board does not find Archer teaches and renders obvious a web server with a web-enabled processing system, the combination with Chang renders this limitation obvious. It would have been obvious to combine the web-based user control interface of Chang with the server processor and database of Archer.

(v) *Chang teaches a web server with a web-enabled processor.* Chang teaches a web server with a web-enabled processor for allowing users to set call features in the form of its Secure Access Platform (25) that controls the SCPs (19) of the PSTN Intelligent Network. EX1004, Fig. 1 (19, 25), TLP ¶¶118–19. Chang's Secure Access Platform (25) connects over the Internet (27) to a user terminal (29) that has a web browser (293). EX1004, Fig. 1 (25, 27, 29), 2 (25, 27,

routing calls from and to subscribers within a local geographic area and switching facilities for routing calls to other edge switches or other switching facilities local or in other geographic areas…" Archer teaches that one of its communications networks contains the claimed edge switches and switching facilities in the form of circuit-switched networks (118, 136) which are preferably the PSTN. EX1003, 5:5-32, TLP ¶¶135–36. The PSTN consists of switches known as tandem switches or class 4 switches (switching facilities in the claims) which serve to interconnect between different geographical regions and edge switches or class 5 switches, which connect to end-user devices, like telephones, within a local geographic area. EX1001, 1:45-50; EX1004, Fig. 1, 7:43-8:24, 18:66-19:12; TLP ¶¶136–39; EX1037, 64-69, 11-92, 106-13, 139-45; EX1010, 87 n.1. To the extent the Board finds that the PSTN does not expressly disclose the claimed switching facilities and edge switches, they are inherent because the PSTN's structure (Archer's preferred circuit-switched network 118) necessarily requires tandem switches (i.e., switching facilities) interconnecting to edge switches or obvious because that is the only way the PSTN is structured. TLP ¶¶140–41; EX1003, 5:23-25.

(d) **Claims 1[pre(iv) and 94[pre(iv)] (Grounds 1-2):** "…the method [communication network] for enabling voice communication from a calling party to a called party across both the packet network and the second network [circuit-switched network and a packet network], the method comprising the steps of [the