UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOTOROLA SOLUTIONS, INC.
Petitioner

v.

STA GROUP LLC
Patent Owner

Inter Partes Review No.: IPR2024-00479
U.S. Patent No. 9,319,852 B2

PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 9,319,852 UNDER 35 U.S.C. §§311-319 AND 37 C.F.R. §§42.1-100, ET SEQ

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1014	U.S. Provisional Patent Application No. 60/608,131
1015	U.S. Patent No. 8,892,149 ("the '149 patent")
1016	U.S. Patent Application Publication No. 2009/0298525 ("Shaffer")
1017	U.S. Patent Application No. 12/127,397 ("the '397 Application")
1018	HARRY NEWTON, NEWTON'S TELECOM DICTIONARY (22nd Ed. 2006)
1019	H.248.1 (2005.09)
1020	B. Campbell *et al.*, *Session Initiation Protocol (SIP) Extension for Instant Messaging*, RFC 3428 (Dec. 2002)
1021	RFC 3428 Approved as Proposed Standard (2002)
1022	DANIEL COLLINS, CARRIER GRADE VOICE OVER IP (2nd ed. 2003)
1023	N. Greene, et al., *Media Gateway Control Protocol Architecture and Requirements*, RFC 2805 (Apr. 2000)
1024	U.S. Patent Application Publication No. 2004/0133683 ("Keller")
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Claims
[1pre] An apparatus comprising a processor, wherein the processor is configured to:
[1a] identify information related to an endpoint to obtain identified information; and
[1b] negotiate a communication session with an interoperability server (IS) based in part on at least one of the identified information or a predefined floor control mechanism associated with the IS; and
[1c] receive a first determination from the IS that the endpoint is not in adherence with capabilities of the predefined floor control mechanism and that a proxy is to be dynamically inserted to connect the endpoint to a virtual talk group, wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity.
[2] The apparatus of claim 1, wherein the processor is further configured to identify media capabilities associated with the endpoint, the media capabilities employed by the IS to dynamically determine if the endpoint should be connected to the virtual talk group via the proxy.
[3] The apparatus of claim 2, further comprising a transmitter, wherein the transmitter transmits data to the virtual talk group if it is determined that the proxy is not employed to connect the endpoint to the virtual talk group.
[4] The apparatus of claim 2, further comprising a transmitter, wherein the transmitter transmits data to the proxy over a private channel if it is determined that the proxy is employed to connect the endpoint to the virtual talk group.
[5] The apparatus of claim 1, wherein the processor is further configured to determine an identity associated with the endpoint, the identity employed by the IS to dynamically determine if the endpoint should be connected to the virtual talk group via the proxy.
[7] The apparatus of claim 1, wherein the processor is further configured to monitor endpoints directly connected to the virtual talk group and determines that a directly connected endpoint is not conforming with a floor control policy of the virtual talk group.
[8pre] A method comprising:
[8a] initiating communication with a non-compatible communication device;
[8b] identifying information associated with an initiating device; and

[8c] negotiating a communication session with an interoperability server (IS) based in part on at least one of the identified information or a predefined floor control mechanism associated with the IS; and
[8d] receiving a first determination from the IS that the initiating device is not in adherence with capabilities of the predefined floor control mechanism and that a proxy is to be dynamically inserted to connect the initiating device to a virtual talk group, wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity.
[9] The method of claim 8, wherein the information associated with the initiating device includes at least one of media capability information associated with the initiating device or an identity of the initiating device.
[10] The method of claim 8, further comprising transmitting media to the proxy over a private network through custom messages if it is evaluated that the proxy is employed.
[11] The method of claim 8, further comprising, attaching the initiating device directly to the virtual talk group and transmitting media directly to the virtual talk group if the proxy is not employed to attach the initiating device to the virtual talk group.
[12pre] An endpoint comprising:
[12a] a transmitter and a receiver;
[12b] a user interface;
[12c] a processor coupled to the user interface, wherein the processor:
[12d] identifies information related to the endpoint; and
[12e] negotiates a communication session with an interoperability server based in part on at least one of the identified information or a predefined floor control mechanism associated with the interoperability server; and
[12f] receive a first determination from the interoperability server that the endpoint is not in adherence with capabilities of the predefined floor control mechanism and that a proxy is to be dynamically inserted to connect the endpoint to a virtual talk group, wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity
[13] The endpoint of claim 12, wherein the processor identifies media capabilities associated with the endpoint, the media capabilities employed by the interoperability server to dynamically determine if the endpoint should be connected to the virtual talk group via the proxy.

[14] The endpoint of claim 12, wherein the processor determines an identity associated with the endpoint, the identity employed by the interoperability server to dynamically determine if the endpoint should be connected to a virtual talk group via the proxy.
[15] The endpoint of claim 12, wherein the processor causes the transmitter to transmit data to the virtual talk group if it is determined that the proxy is not employed to connect the endpoint to the virtual talk group.
[16] The endpoint of claim 12, wherein the processor causes the transmitter to transmit data to the proxy over a private channel if it is determined that the proxy is employed to connect the endpoint to the virtual talk group.

I. INTRODUCTION

Motorola Solutions, Inc. ("Petitioner") requests *inter partes* review of claims 1–5 and 7–16 ("the Challenged Claims") of U.S. Patent No. 9,319,852 ("the '852 patent," EX1001), purportedly owned by STA Group LLC ("PO"), pursuant to 35 U.S.C. §§311–19 and 37 C.F.R. §42.100.

II. STATEMENT OF PRECISE RELIEF REQUESTED

In accordance with 35 U.S.C. §311, Petitioner requests cancelation of claims 1–5 and 8–11 of the '852 patent in view of the following grounds:

Ground	Claims	Stat. Basis	Prior Art
1	1–5, 8–11	35 U.S.C. §103	U.S. Pat. Pub. No. 2006/0058007 ("Choksi")

III. THE '852 PATENT

A. Overview of the '852 Patent

The '852 patent was filed on October 24, 2014, as a divisional of, and incorrectly claims priority to, U.S. Patent No. 8,892,149 ("the '149 patent"), which was filed on May 27, 2008. EX1001, Cover.

The '852 patent is directed to "[a] system and methodology to facilitate communication between non-compatible communication devices by utilization of a dynamic media proxy." EX1001, Abstract. The '852 discloses that public and private groups, such as police and firefighters, often employ communications systems (*e.g.*, land mobile radios ("LMR") and two-way radios communicating

through push-to-talk ("PTT") technology). *Id.* 1:1–13. The endpoints on these communication systems often employed different technologies and/or standards, making it difficult for the endpoints of the different systems to communicate. *Id.* 1:13–16; EX1002, ¶59. Prior art interoperability systems existed that allowed endpoints (*e.g.*, two-way radios) to communicate with different types of endpoints (*e.g.*, IP phones) using "an internet protocol (IP) network collaboration platform." EX1001, 1:19–24. These "interoperability system[s] expect[ed] certain behavioral conformance from the endpoints in the system," which was not an issue for "[e]ndpoints developed and controlled by the interoperability system software." *Id.* 1:27–34. "However, endpoints based on platforms external to the interoperability system cannot automatically conform to the expected characteristics." *Id.* 1:34–36. The '852 claims to have overcome the alleged shortcomings of prior art interoperability systems by inserting a "proxy" when the endpoint lacked the necessary characteristics expected by the interoperability system. EX1001, 2:33–42; EX1002, ¶60.

As shown in Figure 1, below, an embodiment of the system disclosed by the '852 patent includes "an interoperability server (IS) 102, endpoints 104 and communication networks 106 that can be connected through a network 108." EX1001, 4:53–55. "Endpoints 104 can include, but are not limited to, non-compatible communication devices that can participate in a communication

session, such as, PTT radios, IP phones, personal digital assistants (PDAs), personal computers, lang mobile radios (LMR), and the like." *Id.* 5:29–33; *see also id.* 5:59–64. "The networks 106 can include, but are not limited to, IP, non-IP, wireless or wireline networks and can be distributed locally or across multiple geographic locations." *Id.* 5:48–50. Although not illustrated in Figure 1, the endpoints 104 can be endpoints of the networks 106. *Id.* 5:11–15.

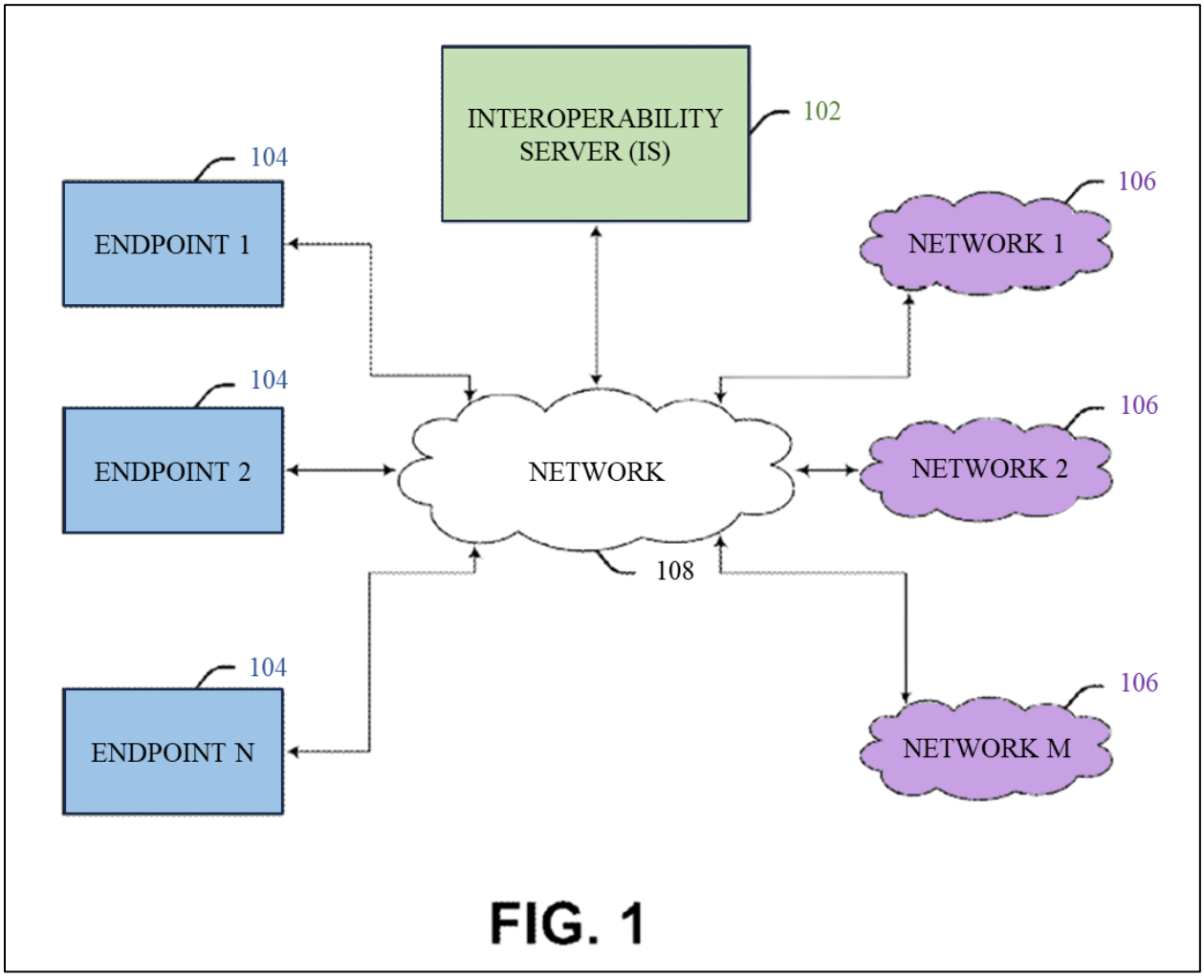


FIG. 1

EX1001, Fig. 1[1]; EX1002, ¶61.

In operation, the capabilities of an originating endpoint 104 are analyzed by the Interoperability Server (IS) 102. EX1001, 2:43–46, 2:52–57, 6:14–16, 7:14–21. If the originating endpoint is unable to connect to the network 108, or if it is determined that the originating endpoint lacks certain capabilities, the interoperability server can "proxy for" the endpoint (EX1001, 6:62–63) or "can connect the [endpoint] to the [target endpoint] via a proxy." *Id.* 6:66–7:3; *see also id.* Fig. 7. EX1002, ¶62.

B. Person of Ordinary Skill in the Art

A person of ordinary skill in the art ("POSITA") at the time of the alleged invention of the '852 patent would have had at least a bachelors' degree in electrical engineering, computer science, or a similar field, plus approximately three years of industry in networking or communication systems, in particular address interoperability between different types of networks and satellite communications. EX1002, ¶72. Additional education in the fields of electrical engineering or computer science, such as a masters or doctorate degree, could substitute for professional experience in the field. *Id.* A person with less or

[1] All emphasis, color, and annotations are added, unless otherwise indicated.

different education but more relevant practical experience, or vice versa, may also meet this standard. *Id.*

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

The Challenged Claims are interpreted using the same claim construction standard that is used to construe the claim in a civil action in federal district court. 37 C.F.R. §42.100(b).

Petitioner does not contend that its proposed constructions are complete constructions of these limitations or the claims for any other purpose, including for issues that have been raised in the related litigation. Because the prior art asserted herein discloses the preferred embodiment within the indisputable scope of the claims, the Board need not construe the outer bounds of the claims as part of these proceedings. The district court may have to address other bounds of the claims in addressing infringement. *See, e.g.*, *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)) (providing that only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy).

Any claim terms not listed below should be construed according to their plain and ordinary meaning to a POSITA at the time of the '852 patent. EX1002, ¶78.

1. **"receiv[e/ing] a first determination from the [IS]/[interoperability server] that the [endpoint]/[initiating device] is not in adherence with capabilities of the predefined floor control mechanism and that a proxy is to be dynamically inserted to connect the [endpoint]/[initiating device] to a virtual talk group, wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity."** (claims 1, 8, 12)

The plain meaning of this claim limitation requires receiving a determination from the IS: (a) "that the endpoint is not in adherence…;" and (b) "that a proxy is to be dynamically inserted…." It is possible—but not required—that the proxy be dynamically inserted because the endpoint is not in adherence with the capabilities of the predefined floor control mechanism. EX1002, ¶79.

The proposed construction is mandated by the plain language of the claims. The claim limitation is composed of two separate dependent clauses—"that the endpoint is not in adherence…" and "that a proxy is to be dynamically inserted…"—in parallel structure, with no recited dependence between the two. EX1002, ¶80.

Indeed, during prosecution, claim 20 (issued claim 1) was originally amended by the patentee to expressly require that the determination whether to insert a proxy be "based in part on at least one of the identified information." EX1003, at 32. Later, however, the patentee authorized the examiner to remove this express requirement in an examiner's amendment, after which the '852 patent issued:

> 20. (Currently Amended) An apparatus comprising a processor, wherein the processor is configured to:
> ~~an information determination component that identifies~~ identify information related to an endpoint to obtain identified information; and
>
> ~~a negotiation component that negotiates~~ negotiate a communication session with an interoperability server (IS) ~~to dynamically determine if the endpoint should be connected to a virtual talk group via a proxy or directly connected to the virtual talk group~~ based in part on at least one of the identified information or a predefined floor control mechanism associated with the IS; and
>
> receive a first determination from the IS that the endpoint is not in adherence with capabilities of the predefined floor control mechanism and that a proxy is to be dynamically inserted to connect the endpoint to a virtual talk group, wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity.

EX1003, at 13–14 (underlining and strikethrough in original) (color added).

Simply put, the proxy can be dynamically inserted for reasons besides correcting for an endpoint not in adherence with the capabilities of the predefined floor control mechanism. EX1002, ¶81–82.

IV. OVERVIEW OF THE PRIOR ART REFERENCES

The challenges in this Petition are based on the knowledge of a POSITA and the prior art described below.

A. U.S. Patent Application Publication No.2006/0058007 ("Choksi") (EX1005)

U.S. Patent Application Publication No. 2006/0058007 ("Choksi") is entitled "Architecture for facilitating group sessions across dispatch operators."

Choksi was filed on September 9, 2005, and published on March 16, 2006,[2] thus making Choksi prior art to the '852 patent under AIA 35 U.S.C. §102(a).[3]

Choksi discloses a system "for an interworking network architecture that is optimized for PTT communications among subscribers on different carrier networks, irrespective of subscriber and carrier location and underlying PTT technology." EX1005, ¶5. Choksi refers to the interworking network architecture as a "worldwide dispatch (WWD) architecture," a "PTT inter-working architecture," and variations thereof. For simplicity, the interworking architecture will be referred to as the "WWD architecture" throughout this Petition. EX1002, ¶84.

[2] Choksi claims priority to and incorporated by reference U.S. Patent Application Nos. 11/047,897 (EX1006) (issued as U.S. Patent No. 7,359,726 (EX1007)), and 11/047,892 (EX1008) (issued as U.S. Patent No. 7,359,731 (EX1009)), as well as U.S. Provisional Patent Application Nos. 60/608,110 (EX1010), 60/608,113 (EX1011), 60/608,117 (EX1012), 60/608,126 (EX1013), and 60/608,131 (EX1014).

[3] To the extent the '852 patent is entitled to priority to the '149 patent (it is not so entitled), Choksi is prior art under pre-AIA 35 U.S.C. §§102(a), (b), and (e).

Choksi Figure 1, below, shows a high-level block diagram of the WWD architecture. EX1005, ¶9. The WWD architecture "assists in translating and managing dispatch sessions between a plurality of dispatch networks, such as dispatch network 20 and dispatch network 30," while each dispatch network "facilitates dispatch calls between a plurality of subscriber units (SU)." EX1005 ¶¶30–31. "[T]he dispatch networks 20 and 30 may be any communications systems…that facilitate dispatch communications between at least two devices," such as "subscriber units (SU)" 22, 24, and 26 for Dispatch Network 20, and "subscriber units (SU)" 32, 34, and 36 for Dispatch Network 30. *Id.* ¶31.

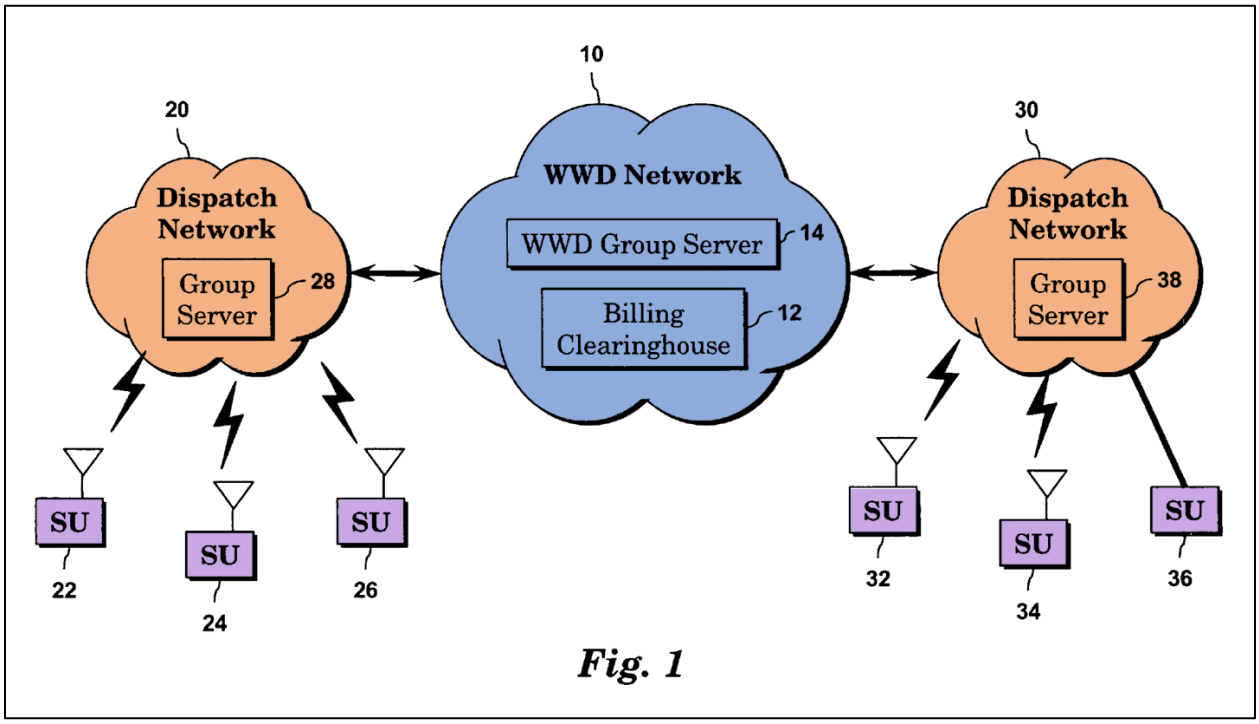


Fig. 1

EX1005, Fig. 1; EX1002, ¶85. Choksi's "subscriber unit[s]" correspond to what the '852 patent calls an "endpoint." *Compare* EX1005, ¶32 (subscriber units

include "mobile telephones, personal digital assistants, and portable computers.") *with* EX1001, 5:29–33 (endpoints include "PTT radios, IP phones, personal digital assistants (PDAs), personal computers, land mobile radios (LMR), and the like."). EX1002, ¶86.

Choksi Figure 3, below, shows a functional block diagram of the WWD architecture (everything within the dashed outline 98), including the different functional components therein:

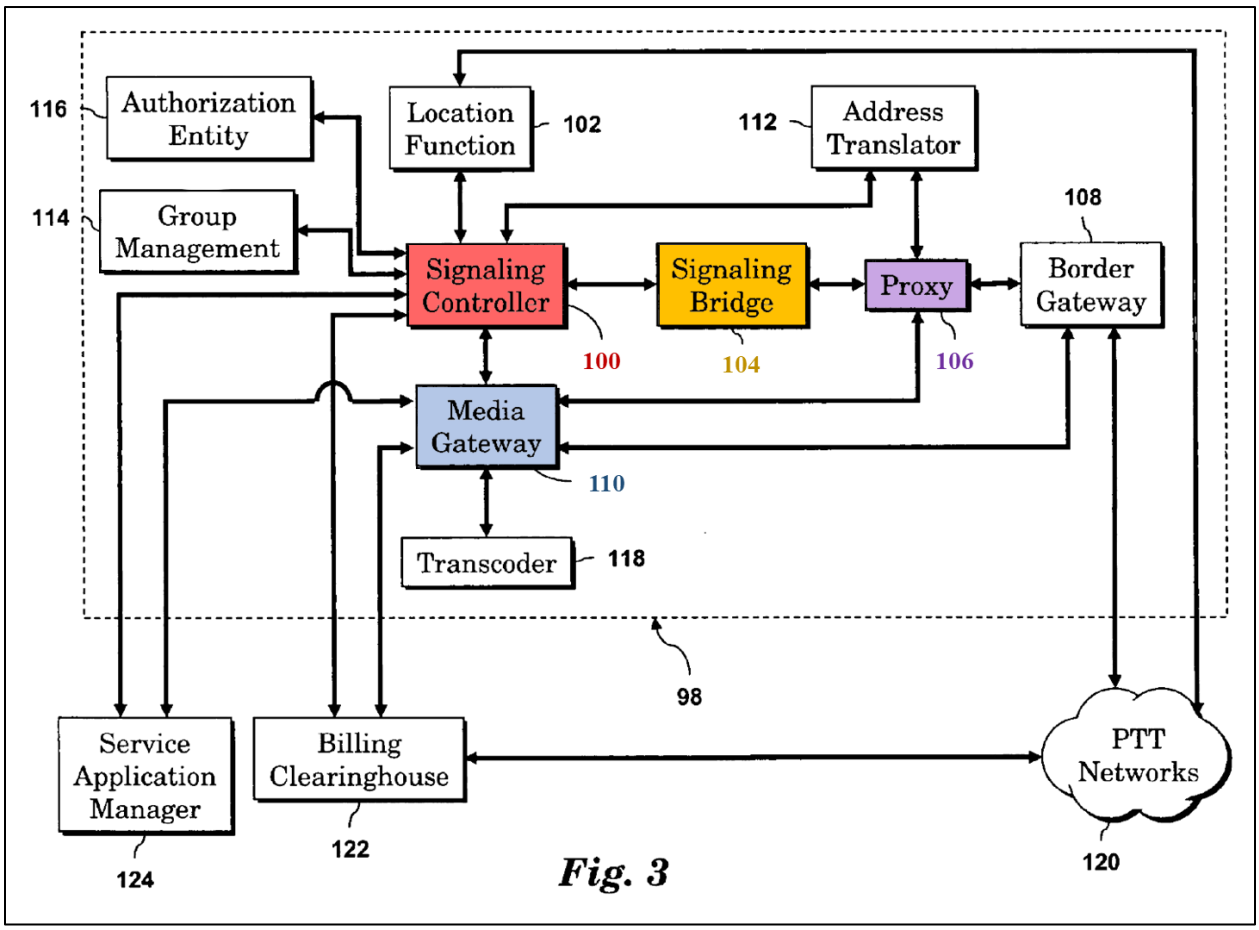


Fig. 3

EX1005, Fig. 3; *see also id.* ¶43 (describing the signaling controller 100); *id.* ¶45 (describing the signaling bridge 104); *id.* ¶46 (describing the proxy 106); *id.* ¶¶51–52 (describing the media gateway 110).

Choksi Figures 4 to 13 are exemplary "physical architectures" and call flow diagrams containing some or all of the components described in the functional block diagram of Figure 3. EX1005, ¶42; *see also id.* ¶¶11–21; EX1002, ¶¶86–88.

V. LEGAL STANDARD FOR OBVIOUSNESS

A claim is unpatentable under 35 U.S.C. §103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious to a person having ordinary skill in the art to which said subject matter pertains. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations, including commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

With respect to factor (3), the level of skill in the art at the time of the alleged invention of the '852 patent is discussed above. With respect to factor (4), PO has not provided any evidence of secondary considerations that would weigh in

favor of non-obviousness, let alone any evidence that establishes a nexus between any secondary consideration and the challenged claims. In any event, the showing of invalidity in this Petition is strong and any alleged secondary considerations are insufficient to establish non-obviousness in light of this strong prima facie showing. *Intercontinental Great Brands (Kraft) v. Kellogg N. Am. Co.*, 869 F.3d 1336, 1347 (Fed. Cir. 2017). Factors (1) and (2) are addressed below.

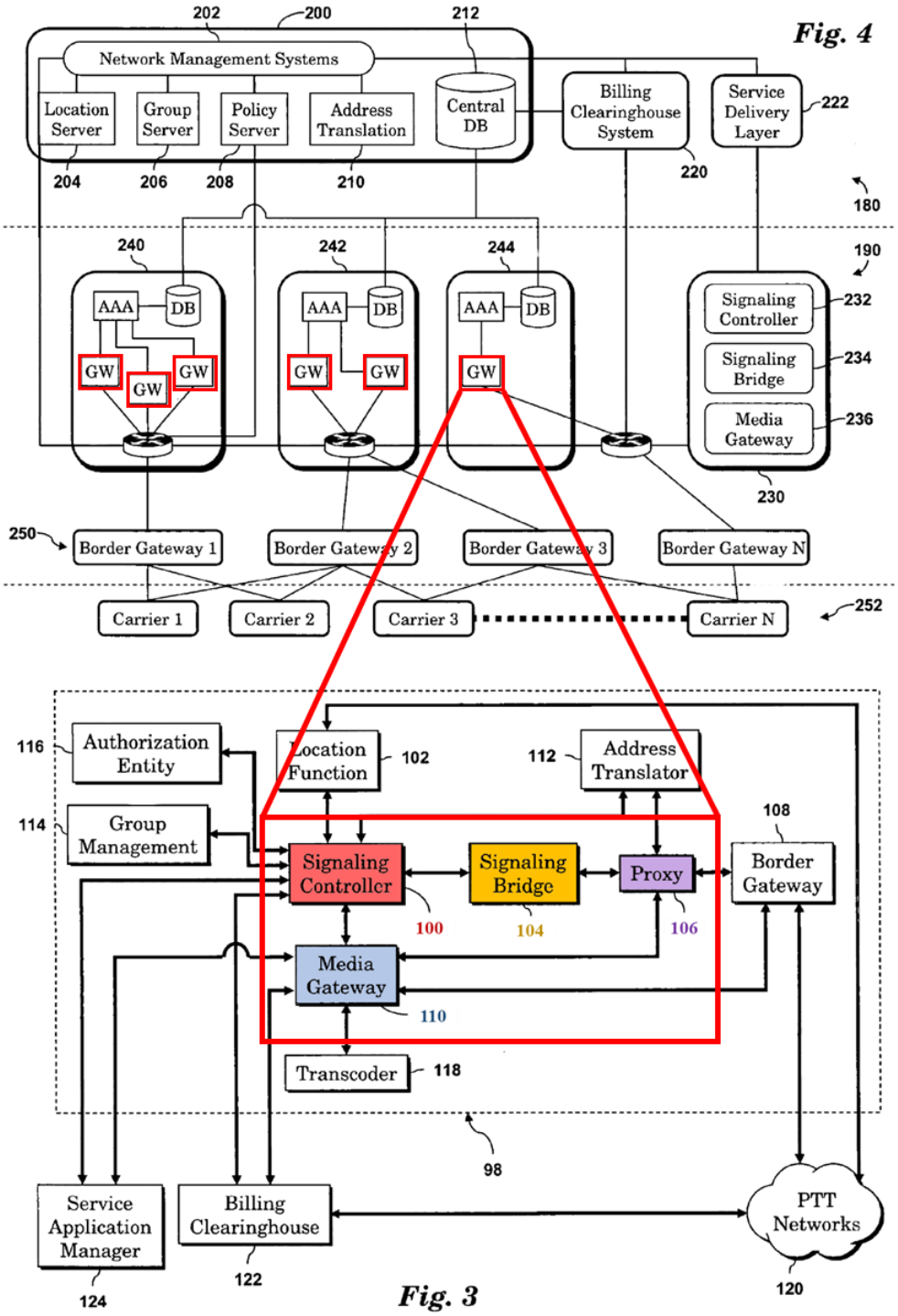
VI. GROUND 1: CHOKSI IN VIEW OF THE KNOWLEDGE OF A POSITA RENDERS OBVIOUS CLAIMS 1–5 AND 8–11

A. Motivation to Combine Embodiments within Choksi

A POSITA would have found it obvious to combine the various embodiments within Choksi. EX1002, ¶102. As explained in Section IV.A, *supra*, Choksi first discloses a high-level overview of the WWD architecture (Figure 1) before gradually disclosing detailed potential physical embodiments and flow diagrams (Figures 4–13). Each of the physical embodiments and flow diagrams use the same underlying functional components, with each of the underlying functional components providing the same functionality as described in the functional block diagram (Figure 3). *See* EX1002, ¶102.

For example, Choksi explains that some of the functional components described in the functional block diagram (Figure 3) are grouped together in a single physical component. As one example, Figure 4, below, shows "custom PTT gateway GW [that] include a proxy function, a signaling controller, a signaling

bridge function for each supported technology and media gateway, as discussed above with respect to FIG. 3." EX1005, ¶59; EX1002, ¶103.



Choksi further discloses that in some instances "to facilitate operation of PTT centric applications through the service delivery architecture 222, an inter-working vendor may include a service delivery interface 230 that include signaling controller 232, signaling bridge 234 and media gateway 236." EX1005, ¶59; EX1002, ¶104.

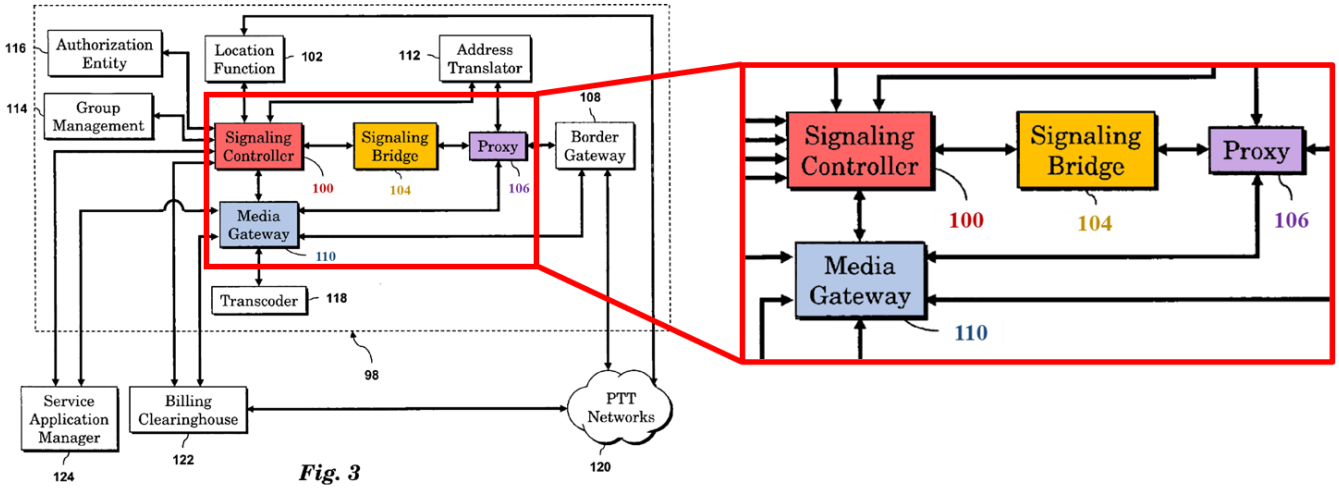


Fig. 3

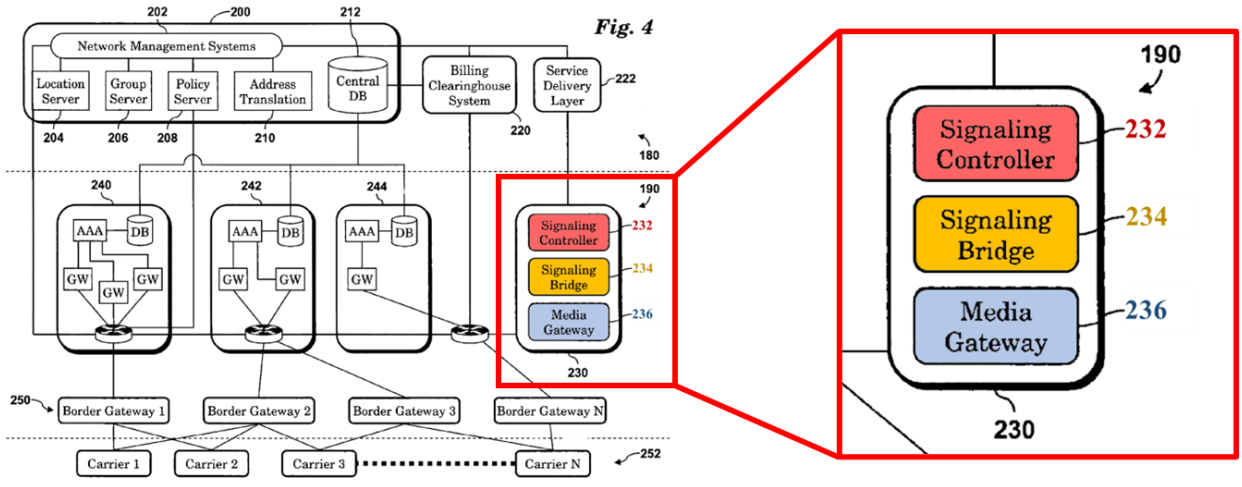


Fig. 4

Choksi also discloses a "second embodiment [that] may include the same core network components 180, border gateways 250 and carrier networks 252 of the first embodiment illustrated in FIG. 4. The regional network components 290

include a plurality of POPs, such as POPs 300, 310 and 320. Each POP includes a signaling controller (302, 312, and 322, respectively), a signaling bridge (304,314 and 324, respectively), and a media gateway (306, 316 and 326, respectively)." EX1005, ¶66. The signaling controller (processor) manages communications across PTT carriers and technologies. EX1002, ¶105.

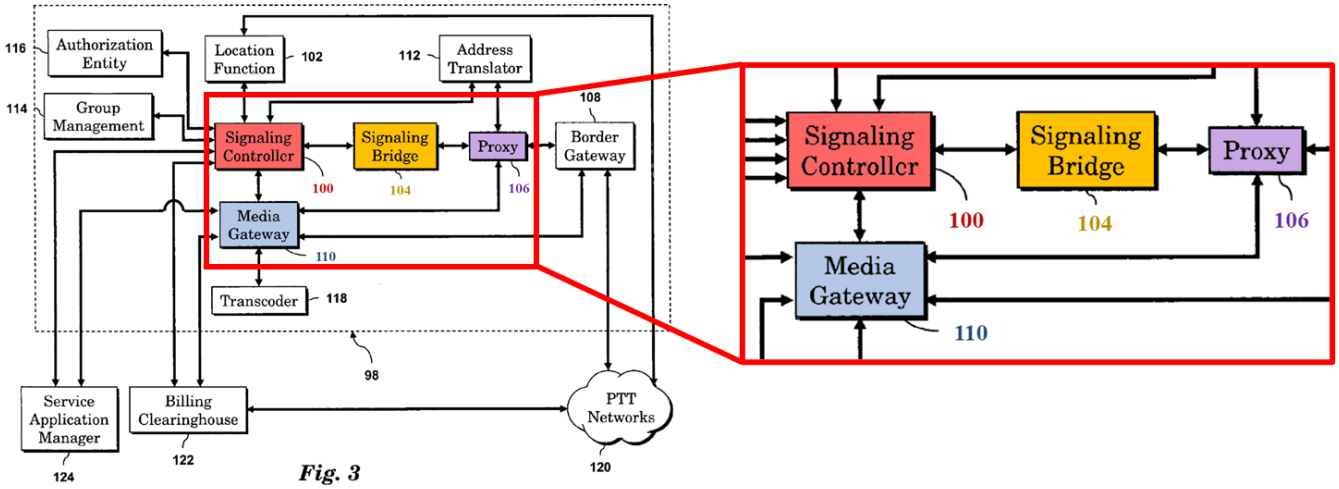


Fig. 3

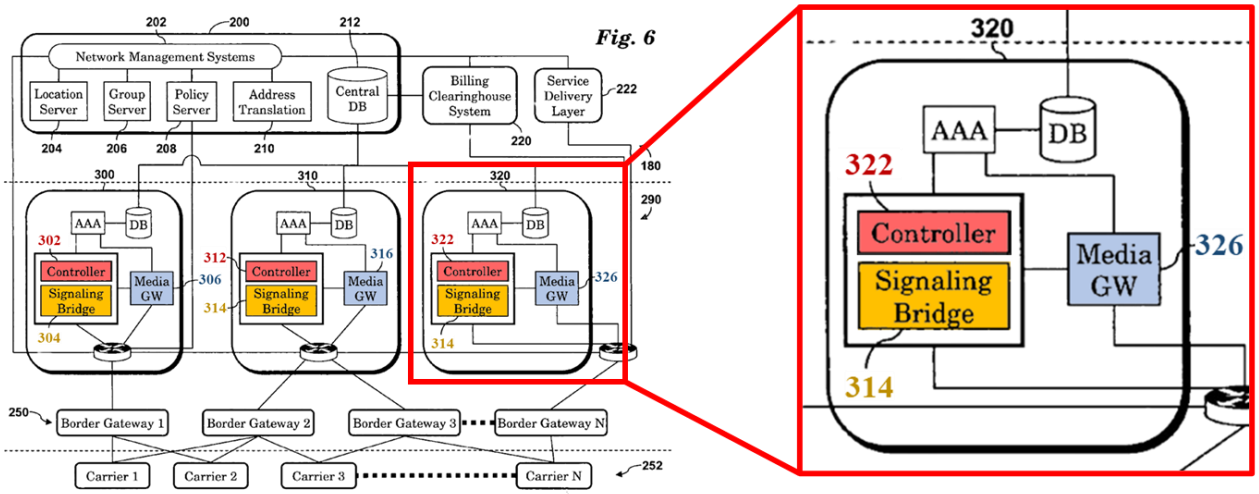
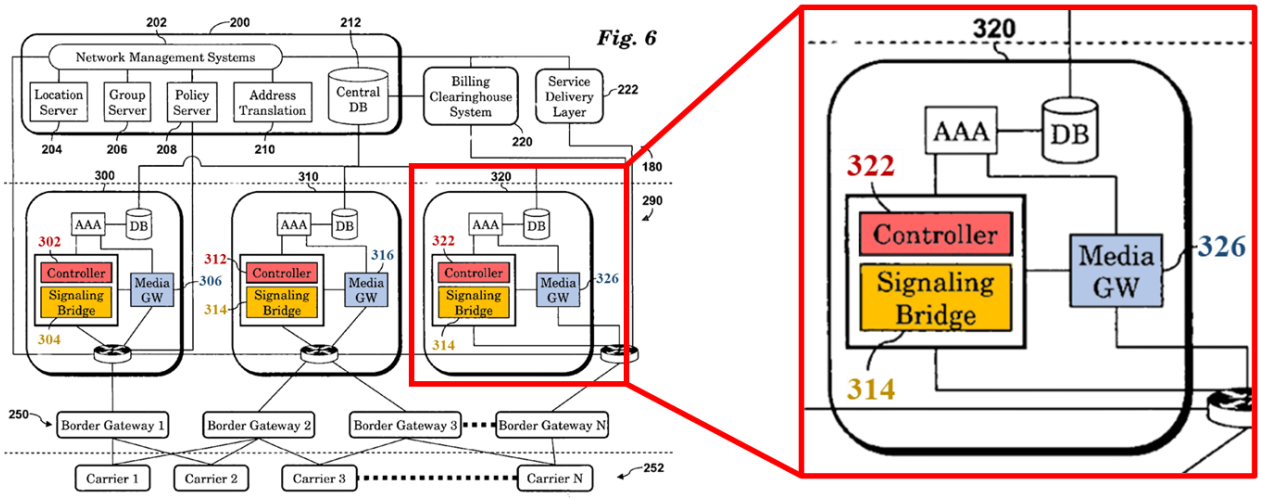


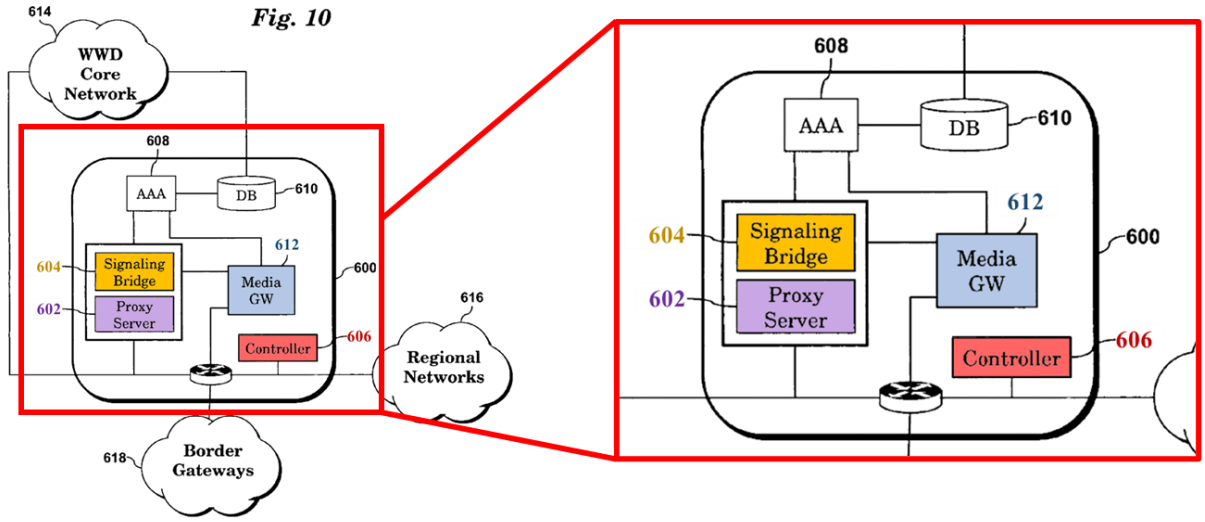
Fig. 6

Choksi explains that in the second embodiment "all sessions undergo translation, irrespective of the originating and terminating technologies, [so] the proxy function is not required." EX1005, ¶65. Nevertheless, a POSITA would

have understood the disclosure of Choksi to include a second embodiment variation that included a "proxy function" (a/k/a proxy 106), because the proxy 106 was one of the core components described in the high-level block diagram of the WWD architecture (Figure 3). EX1002, ¶106. In other words, Figure 6 shows an example where the proxy 106 (the so-called "proxy function") has simply been removed—and it would not be difficult for a POSITA to add back said "proxy function." EX1002, ¶106. Moreover, a POSITA would have been motivated to add a "proxy function" to the second embodiment because, as Choksi explains, the "proxy function" (a/k/a proxy 106) "reduces the call setup and floor arbitration latencies associated with the inter-working calls." EX1005, ¶88; EX1002, ¶106.

Choksi also discloses a third embodiment as "illustrated in FIG. 10. This embodiment is similar to the second embodiment illustrated in FIG. 6, but includes a proxy 602 to control whether WWD sessions between carriers will be translated. As illustrated, at least one POP 600 is networked with the WWD core network 614, regional networks 616 and at least one border gateway 618. The POP 600 includes the proxy server 602, a signaling bridge 604, a controller 606, an AAA 608, a regional database 610 and a media gateway 612." EX1005, ¶88; EX1002, ¶¶107-108.


Fig. 6
Network Management Systems
Location Server
Group Server
Policy Server
Address Translation
Central DB
Billing Clearinghouse System
Service Delivery Layer
AAA
DB
Controller
Signaling Bridge
Media GW
Border Gateway 1
Border Gateway 2
Border Gateway 3
Border Gateway N
Carrier 1
Carrier 2
Carrier 3
Carrier N
320
322
326
314


Fig. 10
WWD Core Network
608
AAA
DB
610
612
604
Signaling Bridge
602
Proxy Server
Media GW
600
Controller
606
616
Regional Networks
618
Border Gateways

See also:

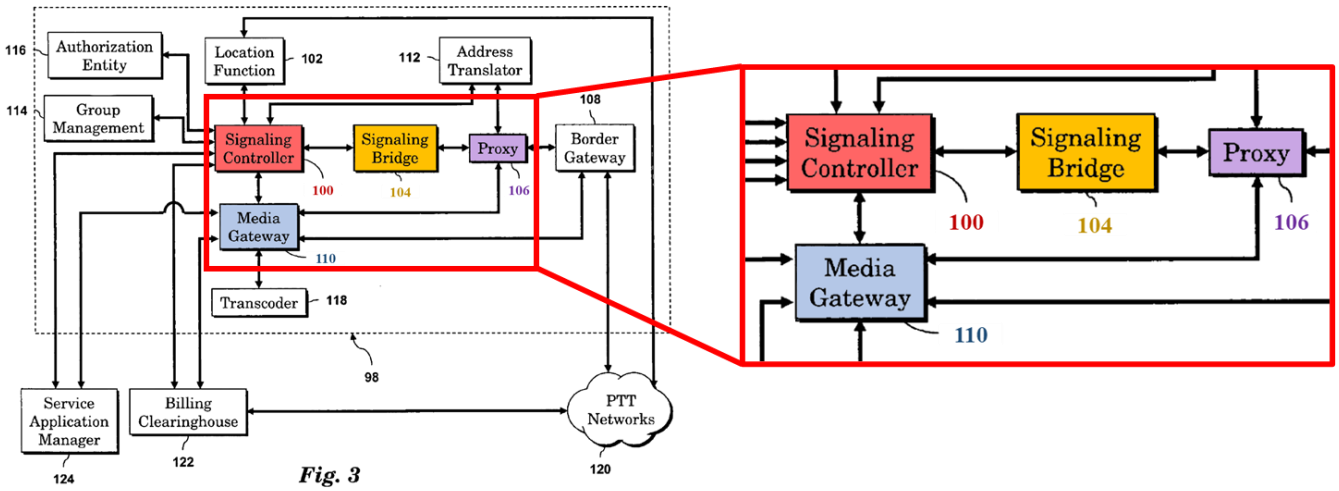
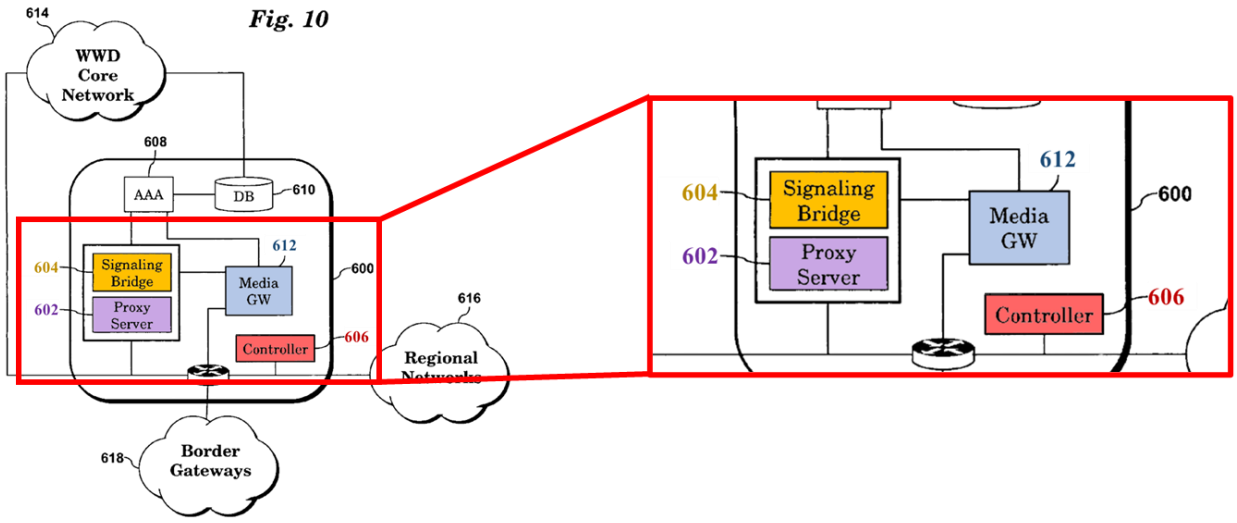


Fig. 3

Fig. 10



Thus, a POSITA would have found it obvious to combine the features and functions disclosed in the physical architectures and flow diagrams (Figures 4–13), along with the features and functions of other components disclosed in the functional block diagram (Figure 3) and high-level block diagram (Figure 1). *See* EX1002, ¶109; *Boston Scientific Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009) ("Combining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness."); *see also* EX1005, ¶87

("It will be appreciated that other session configurations and call flow routing may be implemented within the spirit and scope of the present invention."); *id.* ¶88 (third embodiment "is similar to the second embodiment illustrated in FIG. 6, but includes a proxy 602"); and *id.* ¶89 ("The core WWD infrastructure includes the components previously described in other embodiments.").

B. Claim 1

1. [1pre] An apparatus comprising a processor, wherein the processor is configured to:

To the extent the preamble is limiting, Choksi discloses or renders obvious an apparatus (a physical device embodying the WWD architecture 98) comprising a processor—the signaling controller 100:

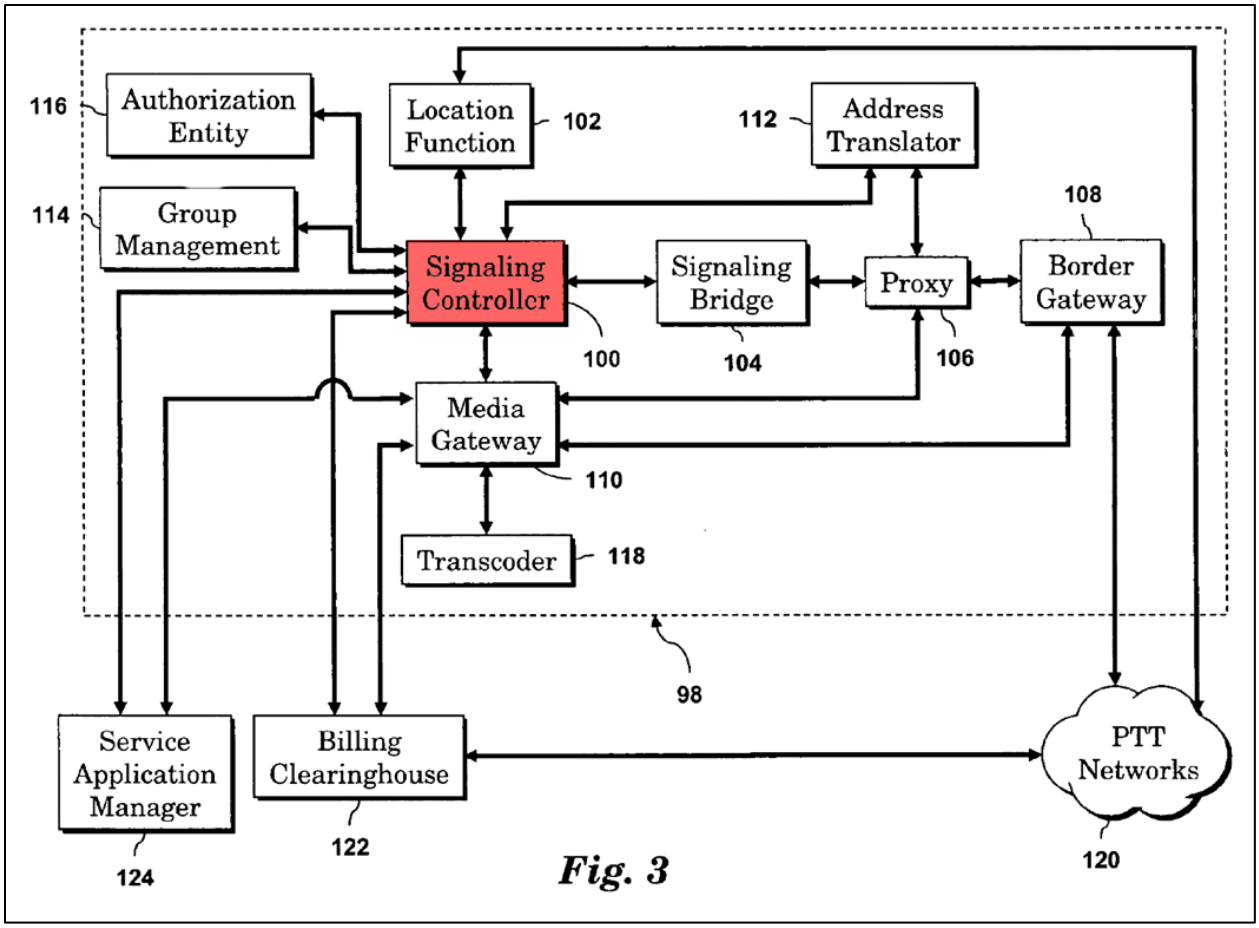


Fig. 3

EX1005, Fig. 3. Choksi explains that the "functional components in FIG. 3 are not necessarily individual physical components or software modules, and that one or more components may be combined into a single physical component or software module or distributed across a plurality of physical devices and locations." EX1005, ¶42. A POSITA would have recognized that an example of a "physical device" for the signaling controller 100 inherently includes a processor if the signaling controller functionality were implemented as a software module, because software requires a processor for execution. EX1002, ¶¶110-111. In any event, a POSITA would have found it obvious to implement the signaling controller 100

using a processor because the use of processors for executing software was ubiquitous in the art and involved only ordinary skill. EX1002, ¶111.

2. [1a] identify information related to an endpoint to obtain identified information; and

Choksi discloses that the signaling controller 100 identifies information related to an endpoint to obtain identified information. For example, Choksi discloses that the signaling controller 100 receives "addresses from [an endpoint on] the calling network" and then determines "whether transcoding is required between the [endpoint on the] calling PTT network and [the endpoint on the] target PTT network" based on the PTT networks used by the calling and target PTT networks. EX1005, ¶43. A POSITA would have understood from this disclosure in Choksi that the signaling controller 100 identifies the PTT networks of both the initiating endpoint (i.e., obtain identified information) and the target endpoint, or at least identifies the encoding used by the initiating endpoint (which is also identified information) because doing so is a prerequisite to determining whether transcoding is required between the initiating/calling and receiving/target endpoints. EX1002, ¶112.

3. [1b] negotiate a communication session with an interoperability server (IS) based in part on at least one of

the identified information or a predefined floor control mechanism associated with the IS; and

The signaling controller 100 determines the PTT network or at least the encoding used on that network of the initiating endpoint (the claimed "identified information") as discussed in limitation [1a] above, and then negotiates a communication session with an interoperability server based in part on that information. For example, the interoperability server—everything within the green box in Figure 3, below—includes a media gateway 110, which "is interfaced with the signaling controller 100 and is used to setup media paths, exchange media type and type of transcoding to be done by the media gateway 110." EX1005, ¶51. The communications between the signaling controller 100 and the media gateway 110 that result in media paths being established are a negotiation of a communication session. EX1002, ¶113.

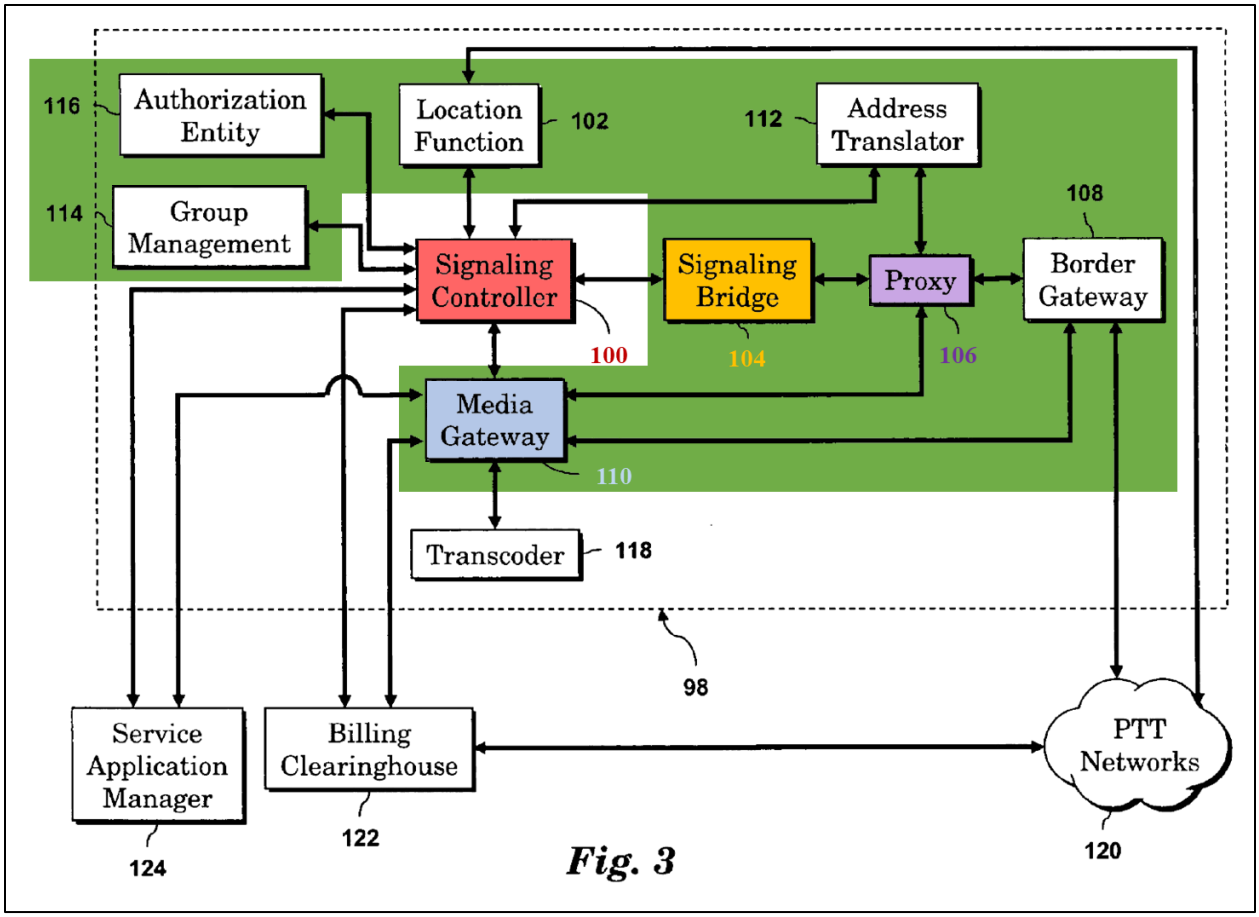


Fig. 3

EX1005, Fig. 3.

A POSITA would have recognized the green box as the IS because of its similarities to the IS disclosed by the '852 patent. EX1002, ¶114. As shown in Figures 3 and 4 of the '852 patent, below, the IS is simply a collection of different "components"—just like green box in Figure 3 of Choksi, above. *Id.* More importantly, the '852 patent discloses that the components within the IS are designed to "facilitate communication between different non-compatible communication devices, such as endpoints" (EX1001, 4:56–57; *see also id.* 5:11–

15), which, is what the components within the green box of Choksi Figure 3 are designed to do. EX1002, ¶114.

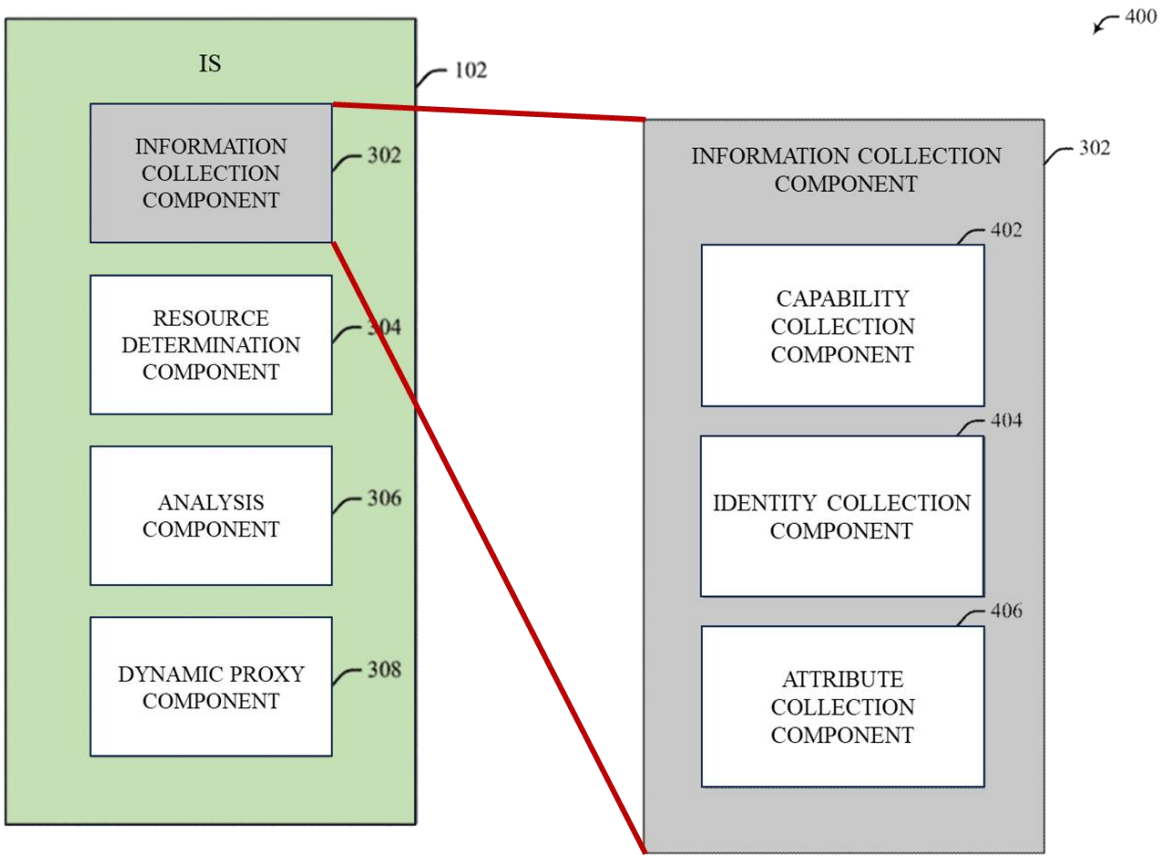


FIG. 3 FIG. 4

4. [1c] receive a first determination from the IS that the endpoint is not in adherence with capabilities of the predefined floor control mechanism and that a proxy is to be dynamically inserted to connect the endpoint to a virtual talk group, wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity.

Claim 1c requires receiving a first determination from the IS that (a) the endpoint is not in adherence with capabilities of the predefined floor control mechanism; and (b) a proxy is to be dynamically inserted to connect the endpoint

to a virtual talk group. *See supra* §III.C.1 Choksi discloses and/or renders obvious both parts (a) and (b) of this limitation. EX1002, ¶115.

a. "the predefined floor control mechanism" is associated with the IS

As an initial matter, the "the predefined floor control mechanism" part of limitation [1c] must be associated with the IS because "the predefined floor control mechanism" derives its antecedent basis from "a predefined floor control mechanism associated with the IS," in limitation [1b]. Choksi discloses that the predefined floor control mechanism is associated with the IS. For example, Choksi discloses:

> The border gateway 108 hosts the necessary trust relationships and related security associations between the WWD network 98 and the PTT networks 120. In one embodiment, the border gateway 108 performs metering, marking, classifying and ***policing of the traffic traversing the border gateway 108 in both directions*** in accordance with aggregate carrier service level agreements, which may include multiple levels of quality of service including requirements specifying network availability, latency and packet loss rate and service availability and denial and billing accuracy.

EX1005, ¶ 54; EX1002, ¶116. As shown in Figure 3, below, the border gateway 108 is part of the IS (everything in the green box); thus, the floor control mechanism is associated with the IS. EX1002, ¶117.

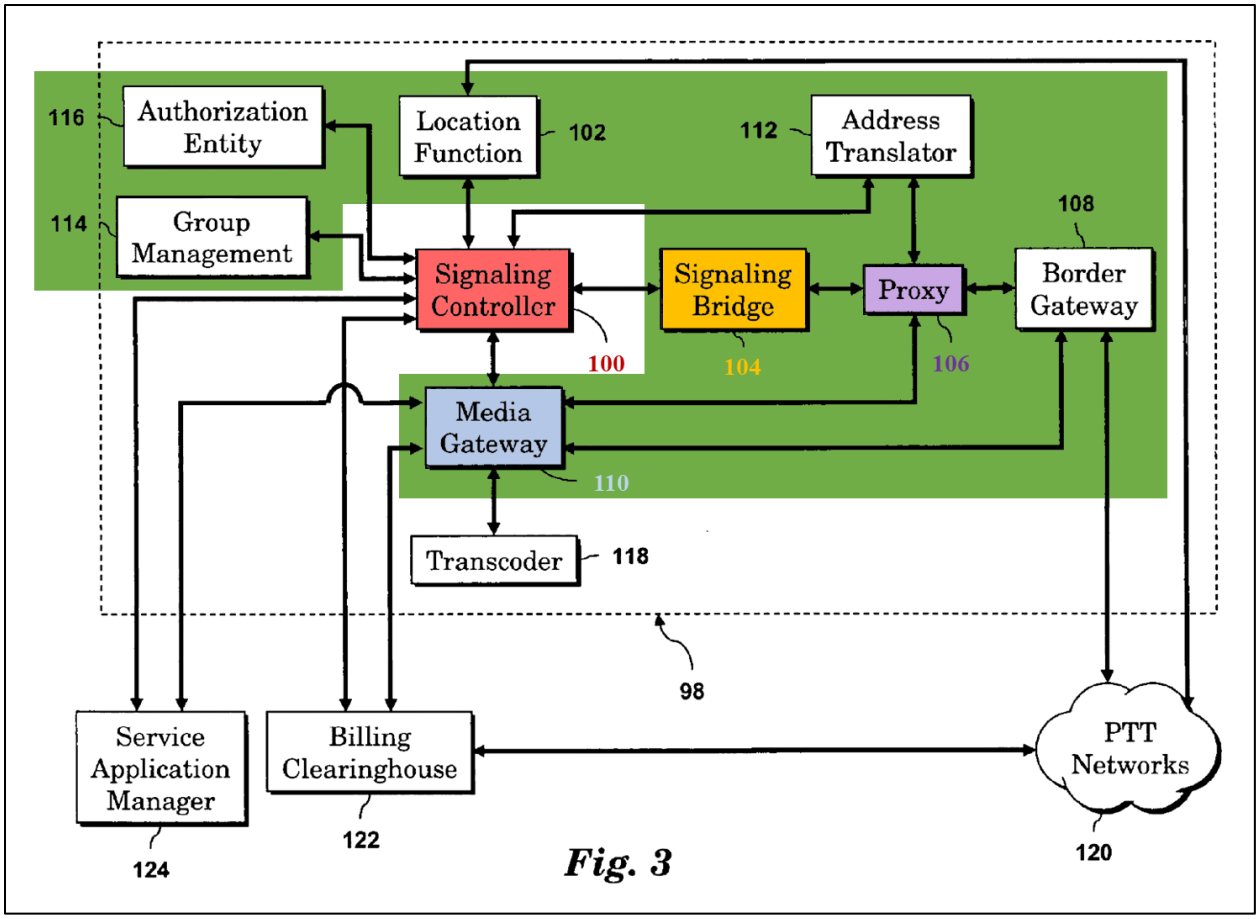


Fig. 3

b. "receive a first determination from the IS that the endpoint is not in adherence with capabilities of the predefined floor control mechanism . . . wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity"

The signaling controller 100 (the claimed processor) is configured to receive a first determination from the interoperability server that the initiating endpoint is not in adherence with the following three capabilities of the predefined floor control mechanism: quality of service, rules of transmission, and trusted endpoint identity. EX1002, ¶118.

Quality of Service. Choksi discloses that "[t]he media gateway 110 is interfaced with the signaling controller 100 and is used to setup media paths, exchange media type and type of transcoding to be done by the media gateway 110." EX1005, ¶51. "The MEGACO (media gateway control) protocol with enhancements may be used for this interface." *Id.* One aspect of the MEGACO protocol is that the media gateway controller (which a POSITA would have understood to be signaling controller 100) sets quality of service standards for the connection between an initiating endpoint and the media gateway (*i.e.*, media gateway 110). EX1002, ¶119 (citing EX1022, at 253 and EX1023, at 10). The media gateway is further required to report to the media gateway controller (*i.e.*, the signaling controller 100) when the quality-of-service standards set by the media gateway controller (which is part of the IS) are not being maintained by a connected endpoint (*i.e.*, sending a first determination that quality of service is not being maintained by the initiating endpoint). EX1002, ¶119.

Rules of Transmission. A POSITA would have understood "rules of transmission" to include restrictions on and/or requirements of the PTT technology format (*e.g.*, signaling and media format) used by an initiating endpoint to communicate with or within a virtual talk group. *See* EX1002, ¶120. Choksi discloses the "rules of transmission" part of limitation 1c by disclosing that the proxy 106—which is part of the IS (everything in the green box in Figure 3,

below)—sends a first determination to signaling controller 100 (the claimed processor) that the format of requested PTT session will need to be translated by the signaling bridge 104 for the duration of the PTT session. More specifically, Choksi discloses that "proxy 106 analyzes incoming session requests" to determine if the same or different PTT technologies are used by the initiating and receiving endpoints. EX1005, ¶¶46, 69; EX1002, ¶121. The proxy 106 can make this determination based on the "PTT protocol type information embedded in the session header." *Id.* ¶¶45–46. In some cases, the session header is "based on SIP (session initiation protocol), with extensions added as necessary to facilitate the communications described [in Choksi]." *Id.* ¶45–46.

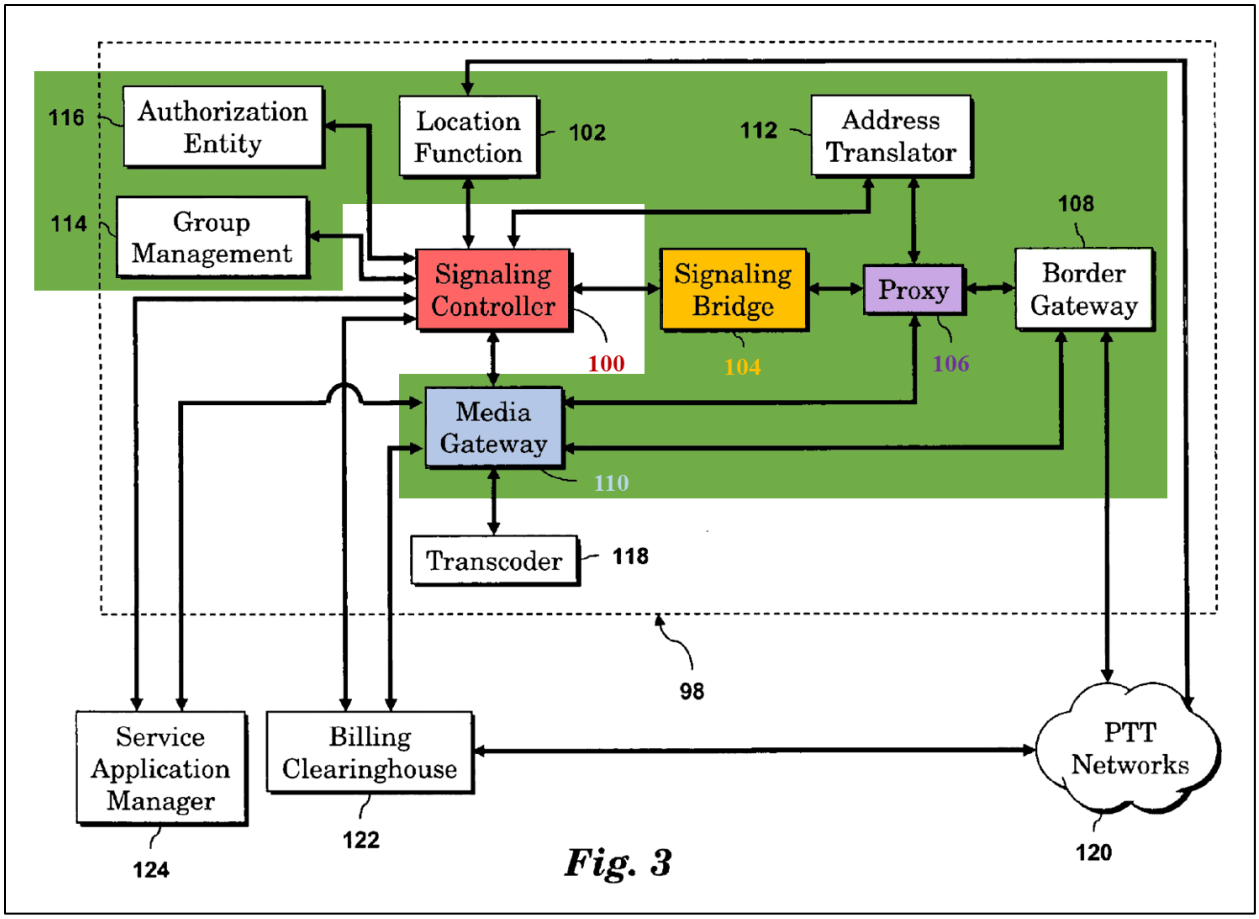


Fig. 3

EX1005, Fig. 3; EX1002, ¶121.

Based on Choksi's disclosure, a POSITA would have understood the proxy 106 to be adding an extension to the session header for the signaling bridge 104 and/or the media gateway 110 indicating signaling translation and/or media translation is required. EX1002, ¶122; EX1005, ¶¶45–46. Alternatively, it was well-known in the art at the time of the invention to add extensions to SIP headers and, thus, would have been obvious to a POSITA for proxy 106 to add an extension to the session header indicating to the signaling bridge 104 and/or the media gateway 110 that signaling and/or media translation is required. EX1005,

¶¶45–46; EX1002, ¶122 (citing EX1020 (B. Campbell *et al.*, *Session Initiation Protocol (SIP) Extension for Instant Messaging*, RFC 3428 (Dec. 2002)); EX1021 (RFC3428 Approved as Proposed Standard (2002))). Either way, the signaling controller 100 will be informed based on the extension in the session header that the initiating endpoint does not conform with the rules of transmission since signaling translation and/or media translation would need to be employed. EX1002, ¶122.

Trusted Endpoint Identity. A person of ordinary skill in the art would have understood "trusted endpoint identity" to include determining whether an initiating endpoint can be trusted to join the virtual talk group based on its identity. EX1002, ¶123 (citing and quoting EX1001, 11:44–48 ("At 706, a decision can be made if the device is allowed to join a VTG based on its identity. If the device identity is determined to be untrusted or malicious the device cannot be allowed to join the VTG and the request can be rejected at 708.")). Choksi discloses an "authorization entity 116 [that] is connected to the signaling controller 100 and operates to manage call restrictions and authorization data for roaming subscribers and session requests to and from subscribers to applications from the service application manager 124." EX1005, ¶48; *see also id.* ¶43 ("It is further contemplated that the signaling controller 100 may perform admission control."); *id.* ¶43 ("The signaling controller 100 may also host and manage sessions for

roaming subscribers and locate users in a WWD roaming database."). A POSITA would have understood that the authorization entity 116 is providing authorization information (*i.e.*, information on whether an initiating endpoint is authorized and/or trusted) to the signaling controller 100, including information indicating that an endpoint is not trusted. *See* EX1002, ¶124.

c. "receive a first determination from the IS … that a proxy is to be dynamically inserted …"

The signaling controller 100 also receives a first determination that the signaling bridge 104 (the claimed proxy) is to be dynamically inserted to connect the initiating endpoint to a virtual talk group. For example, the "signaling bridge 104 converts session and signaling messages from one PTT technology to another." EX1005, ¶45. The proxy 106—which is part of the interoperability server—is responsible for "analyz[ing] incoming session requests to determine whether the originating and terminating PTT networks use the same PTT technology." *Id.* ¶45. "If different [PTT] technologies are used, then the session is routed [by the proxy 106] to the signaling bridge 104 for translation;" otherwise the signal goes directly to the signaling controller 100. *Id.* ¶46. "[T]he proxy 106 may make routing decisions based on PTT protocol type information embedded in the session header." *Id.* ¶46. EX1002, ¶125.

A POSITA would have considered the signaling bridge 104 (the claimed "proxy") "dynamically" inserted because the signaling bridge 104 performs a

translation in response to a determination by proxy 106 that translation is required—the signaling bridge is not always used, as shown in Figure 12, below.

EX1002, ¶126.

> In step 624, if the PTT session requires translation then the proxy 602 routes the session to the signaling bridge 604 where it is converted to a common WWD protocol in step 626. In step 628, transcoders are selected for the PTT session, and then address and name translation is then performed via the controller 606 and the WWD core network 614 in step 630. If the session does not require translation then the proxy 602 bypasses steps 626 and 628.

EX1005, ¶90.

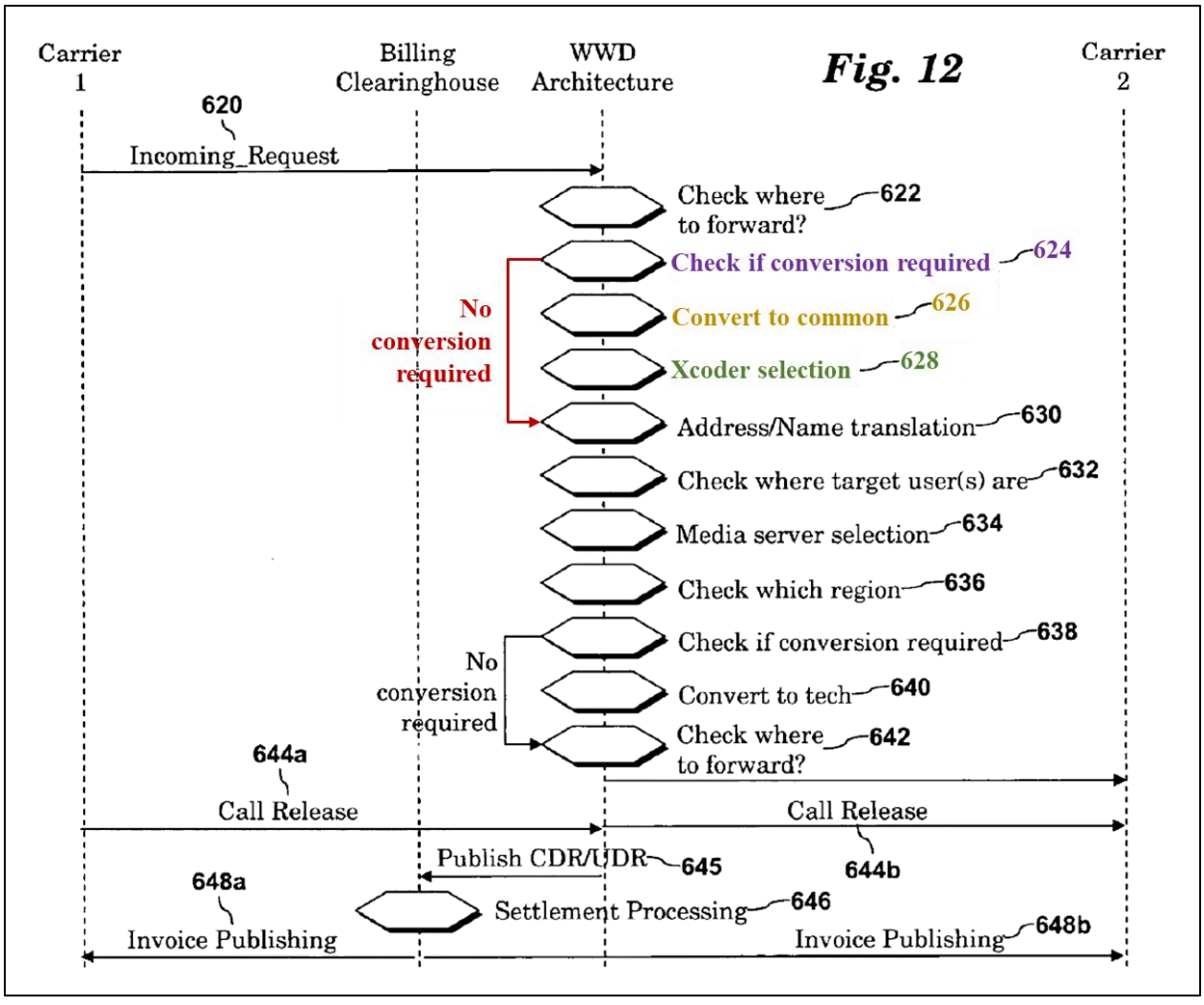


Fig. 12

EX1005, Fig. 12; EX1002, ¶126.

A POSITA would also have understood the signaling controller 100 receives the determination that the signaling bridge 104 (the claimed proxy) is to be inserted for the rest of the session. EX1002, ¶127. After the proxy 106 determines that translation is required based on the PTT protocol type information embedded in the session header, the proxy 106 forwards the session request to the signaling bridge 104 for translation into a common format that the signaling controller 100 can understand. A POSITA would have understood that the proxy 106 is determining that the PTT protocol type embedded in the header of the session request is indicative of the PTT protocol type used by the session request and that the PTT protocol type of the session request is different from the PTT protocol type used by the signaling controller 100. EX1002, ¶127. The signaling bridge 104 translates the session request into a common format that the signaling controller can understand. EX1005, ¶45. In some cases, the "common network protocol is based on SIP (session initiation protocol), with extensions added as necessary to facilitate the communications described herein [in Choksi]." *Id.* The signaling controller 100 then receives the translated message in a PTT protocol type (*e.g.*, SIP) that is different from the PTT protocol type information embedded in the session header. *Id.* By receiving the session request in a PTT protocol type different from the PTT protocol type embedded in the session header, the signaling controller 100 is

informed that translation is required and that the signaling bridge 104 (the claimed proxy) is to be inserted. EX1002, ¶128.

C. Claim 2. The apparatus of claim 1, wherein the processor is further configured to identify media capabilities associated with the endpoint, the media capabilities employed by the IS to dynamically determine if the endpoint should be connected to the virtual talk group via the proxy.

Choksi discloses the apparatus of claim 1. *See supra* §VI.B (claim 1).

Choksi discloses "the processor is further configured to identify media capabilities associated with the endpoint." A POSITA would have understood "media capabilities associated with the endpoint" to include the types of media formats that an endpoint could process, send, and/or receive. EX1002, ¶130. This is based on the plain meaning of the phrase "media capabilities" and the prosecution history of the '852 patent. EX1002, ¶130. In particular, during prosecution, the examiner rejected the '852 patent based on U.S. Patent Application Publication No. 2007/0036100 ("Shaffer1") (EX1027). The examiner cited to paragraphs 26–27, 54–56, 64, 93–94, 96 of Shaffer1 as disclosing "further comprising a capability determination component ***that identifies media capabilities associated with the endpoint***, the media capabilities employed by the IS to dynamically determine if the endpoint should be connected to a virtual talk group (VTG) via a proxy." EX1003, 47–48. Paragraphs 26–27, 54–56, 64, 93–94, 96 of Shaffer1 each discuss how an endpoint is unable to process, send, and/or

receive certain media types. EX1002, ¶130 (citing EX1027, ¶¶26–27, 54–56, 64, 93–94, 96). Thus, the examiner appears to have also understood "media capabilities associated with the endpoint" to include the types of media formats that an endpoint could process, send, and/or receive. EX1002, ¶130 A POSITA would have understood "media" to include voice files. EX1002, ¶131 (citing EX1018 (Newton's Telecom Dictionary (22nd Ed. 2006)), at 579).

Choksi discloses that the signaling controller 100 is interfaced with the media gateway 110 and that the signaling controller 100 instructs the media gateway 110 to allocate the necessary resources to handle the PTT session. EX1005, Figs. 3, 9a, ¶¶51, 69, 79. Because the signaling controller 100 is instructing the media gateway 100 to allocate resources for the PTT (push-to-talk) session, it would have been obvious to a POSITA that the signaling controller 100 (the claimed processor) has identified (and is, thus, configured to identify) at least the voice capability (the media capability) of the endpoint. EX1002, ¶132.

Choksi further discloses that "the media capabilities [of the endpoint are] employed by the IS to dynamically determine if the endpoint should be connected to the virtual talk group via the proxy." Choksi first explains that proxy 106 knows the media format used by the originating endpoint—because the proxy 106 can "route[] sessions to the media gateway 110 when … media translation is required (due to different media formats being used between PTT networks)." *Id.* ¶46. In

order for the proxy 106 to know that different media formats are used by the originating and ending PTT networks, the proxy 106 must know the media formats used by the originating and ending PTT networks. EX1002, ¶133. It would have been obvious to a POSITA that the originating and ending endpoints use the same media format as their respective PTT network. EX1002, ¶133. And by routing the session to the media gateway 110 when media translation is required, the proxy 106 (which is part of the claimed interoperability server) is dynamically determining that the endpoint should be connected to the virtual talk group via a proxy (the part of the media gateway 110 responsible for translation). *Id*.

D. Claim 3. The apparatus of claim 2, further comprising a transmitter, wherein the transmitter transmits data to the virtual talk group if it is determined that the proxy is not employed to connect the endpoint to the virtual talk group.

Choksi discloses the apparatus of claim 2. *See supra* §VI.C (claim 2).

Choksi inherently discloses that the apparatus has a transmitter because Choski discloses that messages and signals are transmitted from the signaling controller(s), as shown in Figure 9a, below. Alternatively, it would have been obvious to a POSITA that the apparatus included a transmitter because the apparatus was meant to send signals to and receive signals from PTT systems, and it was well known in the art at the time of the invention that apparatuses meant to send and receive signals within a PTT system included a transmitter. EX1002, ¶134 (citing EX1024, ¶33, Fig. 2).

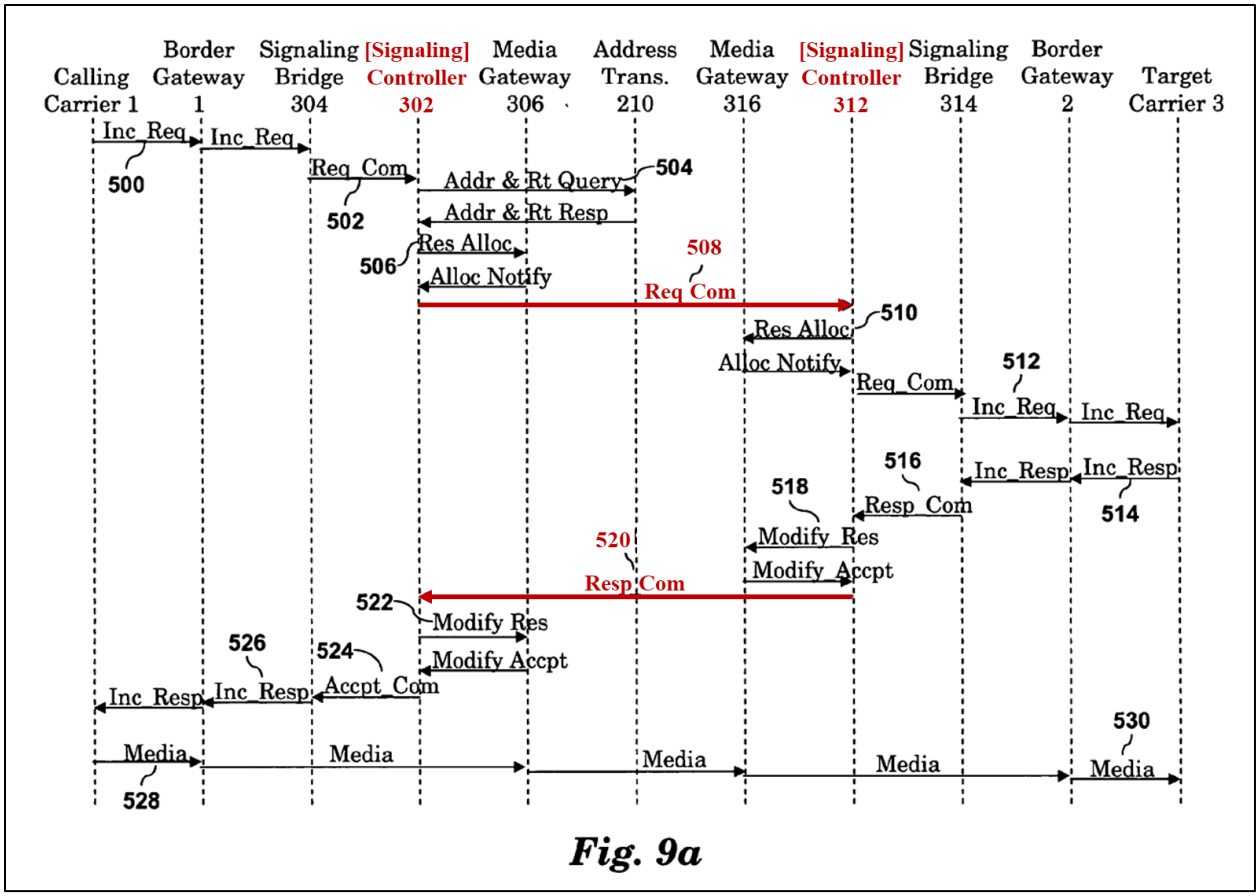


Fig. 9a

See also EX1005, ¶78 ("The controller 302, based on the received routing information, transmits the request 508 to controller 312.").

Choksi further discloses "wherein the transmitter transmits data to the virtual talk group if it is determined that the proxy is not employed to connect the endpoint to the virtual talk group." Choksi explains that "[i]f the session does not require translation then the proxy 602 bypasses" translation by the signaling bridge 104 (*i.e.*, the claimed proxy/signaling bridge 104 is not inserted by Choski's proxy 602). EX1005, ¶90. While not expressly stated, a POSITA would have understood from the silence in paragraph 90 that the media gateway 110 is also not

performing translation (*i.e.*, the claimed proxy is not inserted by the media gateway 110). EX1002, ¶136; *see also* EX1005, ¶46 ("If the same PTT technology is used then the proxy 106 facilitates communication without translation."). The signaling controller then transmits, as shown in Figure 9a, above. It would have been obvious to a POSITA that the messaging pattern disclosed by Figure 9a would apply to the embodiment described in paragraph 90—Figure 9a describes the second embodiment and paragraph 90 describes the third embodiment; the third embodiment is "similar to the second embodiment … but includes a proxy [106]." EX1005, ¶¶17, 77, 88; EX1002, ¶136.

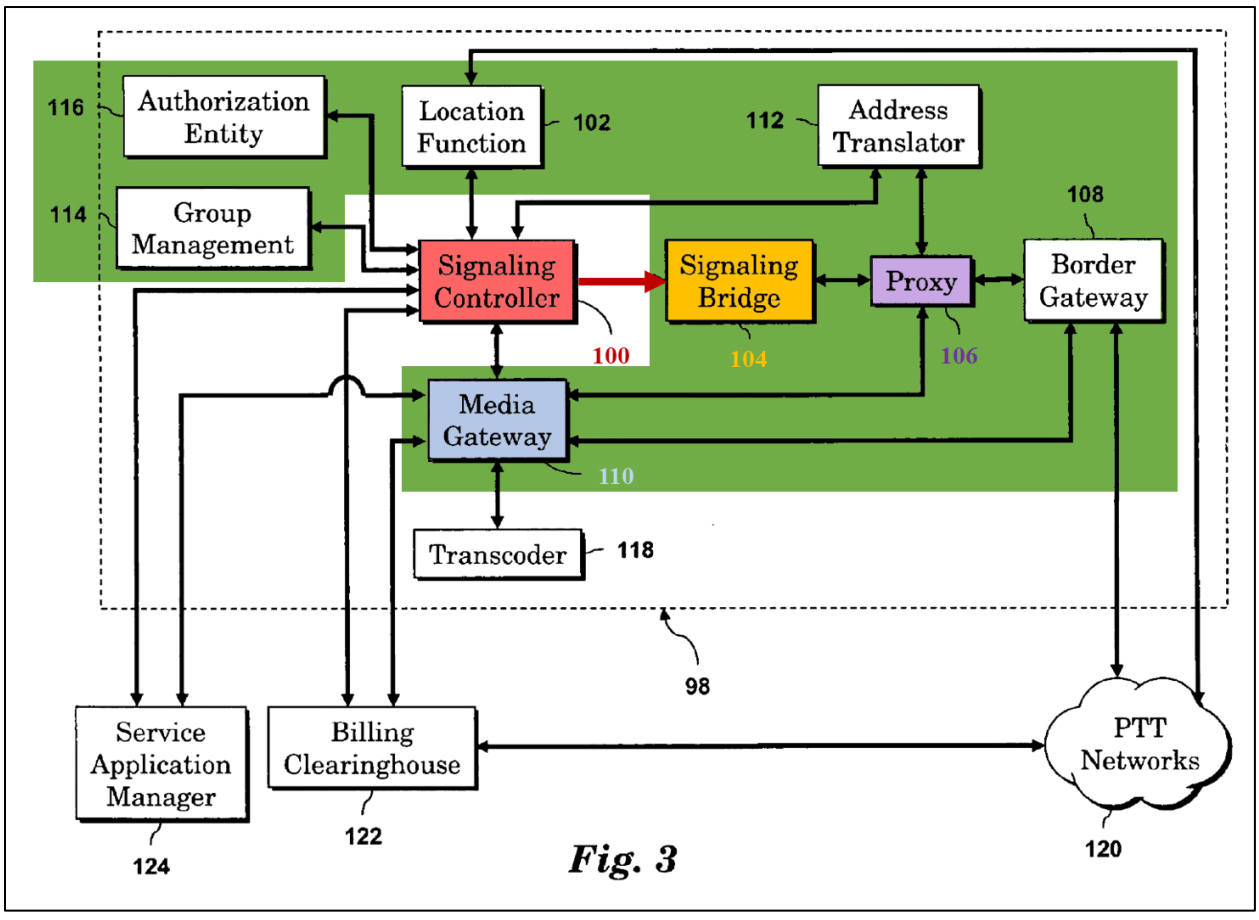
E. Claim 4. The apparatus of claim 2, further comprising a transmitter, wherein the transmitter transmits data to the proxy over a private channel if it is determined that the proxy is employed to connect the endpoint to the virtual talk group.

Choksi discloses the apparatus of claim 2 further comprising a transmitter. *See supra* §§VI.D (claim 3), VI.C (claim 2). EX1002, ¶137.

Choksi also discloses that the transmitter transmits data to the proxy over a "private channel" if it is determined that the proxy is employed to connect the endpoint to the virtual talk group. For example, Choksi discloses that when the signaling controller receives a response message from the receiving endpoint, the signaling controller forwards the response message to the signaling bridge for translation into the format of the originating endpoint. EX1005, ¶70. It would have been obvious to a POSITA that, since the signaling controller 100 uses SIP as

the common format for communicating between endpoints/carriers, the response message to the session request contains a route-record header indicating that the response message needs to be sent back through the signaling bridge 104 for translation before being sent to the originating endpoint/carrier. EX1002, ¶138.

Moreover, as shown by the red arrow in Figure 3, below, the messages between the signaling controller 100 (the claimed processor) and the signaling bridge 104 (the claimed proxy) are sent over a private channel. EX1002, ¶139.



F. Claim 5. The apparatus of claim 1, wherein the processor is further configured to determine an identity associated with the endpoint, the identity employed by the IS to dynamically

determine if the endpoint should be connected to the virtual talk group via the proxy.

Choksi discloses the apparatus of claim 1. *See supra* §VI.B (claim 1); EX1002, ¶140.

According to the '852 patent, an example of an "identity associated with [an] endpoint" is the endpoint's IP address and/or its capabilities. EX1001, 6:8–13. Choksi discloses that signaling controller 100 can make a determination whether transcoding is required based on the PTT networks of the initiating and target endpoints. EX1005, ¶¶43–44. Thus, the signaling controller knows the PTT network of the initiating and target endpoints. A POSITA would have understood the PTT network of an endpoint, such as the initiating endpoint, to be indicative of the endpoint's capabilities—because a PTT network supports certain capabilities and not others. EX1002, ¶141. Thus, signaling controller 100 (the claimed processor) is configured to determine the identity associated with an endpoint. *Id.*

The PTT network of the initiating endpoint is employed by the by the IS to dynamically determine if the endpoint should be connected to the virtual talk group via the proxy. *See supra* §VI.B.4 (claim 1c); EX1002, ¶142.

G. Claim 8

1. [8pre] A method comprising:

To the extent the preamble is limiting, Choksi discloses a method. *See, e.g.*, EX1004, ¶¶2–5; EX1002, ¶143.

2. [8a] initiating communication with a non-compatible communication device; identifying information associated with an initiating device; and

A POSITA would have understood "initiating communication with a non-compatible communication device" to include the initiating endpoint initiating a call (*e.g.*, PTT session) to a receiving endpoint that uses different technology (e.g., PTT technology) than the initiating endpoint (the target endpoint thus being "a non-compatible communication device). EX1002, ¶144. A POSITA would recognize that claim 8 already mentions "an initiating device," leading a POSITA to have understood "non-compatible communication device" as referring to something other than the initiating device. EX1002, ¶144.

Choksi discloses "initiating communication with a non-compatible communication device." See Figs 8a (showing initial communication with "Target Carrier," 8b (same), 9a (same), 9b (showing initial communication with "Target Mobile"); EX1002, ¶145.

Choksi discloses "identifying information associated with an initiating device." *See supra* §VI.B.2 (claim 1a) (discussing the signaling controller 101 identifying information associated with the initiating endpoint). EX1002, ¶146.

3. [8b] negotiating a communication session with an interoperability server (IS) based in part on at least one of the identified information or a predefined floor control mechanism associated with the IS; and

See supra §VI.B.3 (claim 1b); EX1002, ¶147.

4. [8c] receiving a first determination from the IS that the initiating device is not in adherence with capabilities of the predefined floor control mechanism and that a proxy is to be dynamically inserted to connect the initiating device to a virtual talk group, wherein the capabilities comprise quality of service, rules of transmission and trusted endpoint identity.

See supra §VI.B.4 (claim 1c); EX1002, ¶148.

H. Claim 9. The method of claim 8, wherein the information associated with the initiating device includes at least one of media capability information associated with the initiating device or an identity of the initiating device.

See supra §§VI.G (claim 8), VI.C (claim 2); EX1002, ¶149.

I. Claim 10. The method of claim 8, further comprising transmitting media to the proxy over a private network through custom messages if it is evaluated that the proxy is employed.

See supra §VI.G (claim 8); EX1002, ¶150.

Claim 10 is a method claim that includes a condition "if it is evaluated that the proxy is employed." Conditional limitations are not entitled to patentable weight in a method claim. *Ex parte Schulhauser*, No. 2013-007847 at 10 (P.T.A.B. April 28, 2016); *see also Marvell Semiconductor, Inc. v. Uniloc 2017 LLC*, IPR2019-01350, Paper 24, 37 (PTAB Feb. 1, 2021)(applying *Schulhauser* under *Phillips* construction). As a result of this conditional limitation, claim 10 covers two methods: one in which the condition is satisfied and one in which it is not, and therefore the step of "transmitting media to the proxy over a private network through custom messages" need not be shown in the prior art. Given that

this requirement is the only addition to claim 8 and is not required to be performed in order to practice the method of claim 10, demonstrating the unpatentability of claim 8 is sufficient to demonstrate the unpatentability of claim 10. Accordingly, claim 10 is unpatentable for this first reason.

Moreover, the subject matter of claim 11 is obvious over Choksi. The '852 patent uses "private network" interchangeably with "private channel." *Compare* EX1001, 12:23–25 ("media can be transmitted to the proxy over a private network through custom messages at 812") (emphasis added) *with id.* Fig. 8 (showing "transmit data to proxy over a private channel" as step 812) (emphasis added). A POSITA would also have understood "private network" to refer to "private line" (a/k/a "private channel"). EX1002, ¶151 (citing EX1018 (Netwon's Telecom Dictionary (22nd Ed. 2006)), at 729 (synonymizing "private network" with "private line"). Thus, Choksi discloses everything in claim 10 except "through custom messages" for the same reason it discloses claim 4. *See supra* §VI.E (claim 4); EX1002, ¶151.

Choksi discloses "transmitting media to the proxy over a private network through custom messages." A POSITA would understand "custom messages" to include messages specifically designed for communicating between two devices. EX1002, ¶152. Choksi discloses that "[t]he signaling bridge 104 is interfaced with the signaling controller 100, which uses the interface to exchange signaling

messages with the signaling bridge 104 in a common format." EX1005, ¶45. In other words, there is a specifically designated communication format for use between the signaling bridge 104 (the claimed proxy) and signaling controller 100 (the claimed processor). EX1002, ¶152.

J. Claim 11. The method of claim 8, further comprising, attaching the initiating device directly to the virtual talk group and transmitting media directly to the virtual talk group if the proxy is not employed to attach the initiating device to the virtual talk group.

See supra §§VI.G (claim 8).

Claim 11 is a method claim that includes a condition "if the proxy is not employed to attach the initiating device to the virtual talk group." Conditional limitations are not entitled to patentable weight in a method claim. *Ex parte Schulhauser*, No. 2013-007847 at 10 (P.T.A.B. April 28, 2016); *see also Marvell Semiconductor, Inc. v. Uniloc 2017 LLC*, IPR2019-01350, Paper 24, 37 (PTAB Feb. 1, 2021)(applying *Schulhauser* under *Phillips* construction). As a result of this conditional limitation, claim 11 covers two methods: one in which the condition is satisfied and one in which it is not, and therefore the steps of "attaching the initiating device directly to the virtual talk group and transmitting media directly to the virtual talk group" need not be shown in the prior art. Given that these requirements are the only additions to claim 8 and are not required to be performed in order to practice the method of claim 11, demonstrating the

unpatentability of claim 8 is sufficient to demonstrate the unpatentability of claim 11. Accordingly, claim 11 is unpatentable for this first reason. In any event, the subject matter of claim 11 is obvious over Choksi. *See supra* §§VI.G (claim 8), VI.D (claim 3); EX1002, ¶153.

VII. DISCRETIONARY DENIAL IS NOT WARRANTED

A. 35 U.S.C. §314(a) Analysis

Petitioner hereby stipulates that, if IPR of the '852 patent is instituted based on this Petition, Petitioner will not assert in the Parallel Litigation (as defined below) invalidity based of any Challenged Claim based on any ground that was raised or that reasonably could have been raised in this Petition. In light of this stipulation, this Petition should not be discretionarily denied pursuant to *Fintiv*. *See* USPTO Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, 2 (June 21, 2022), at 3.

B. 35 U.S.C. §325(d) Analysis

Applying the two-part framework discussed in *Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GMBH*, IPR2019-01469, Pap. 6, *8–9, the Board should not exercise its §325(d) discretion to deny institution.

With respect to Ground 1, Choski was not considered during prosecution and it is not cumulative of any prior art that was considered during prosecution because Choksi discloses the First Determination Limitation. In the event that

Choksi is found to be cumulative of any prior art that was considered during prosecution, the examiner made a clear material error in not rejecting at least claims 1–5 and 8–11 as obvious over Choski for the reasons discussed in Ground 1.

Accordingly, discretionary denial under 35 U.S.C. §325(d) is not warranted.

VIII. COMPLIANCE WITH FORMAL REQUIREMENTS

A. Mandatory Notices Under 37 C.F.R. §§42.8(b)(1)-(4)

1. Real Party-In-Interest

Motorola Solutions, Inc. is the real party-in-interest.

2. Related Matters

The ’852 patent is subject to the following action:

- *STA Group LLC v. Motorola Solutions, Inc.*, No. 2:23-cv-00030 (E.D. Tex, Jan. 26, 2023); and
- *Motorola Solutions, Inc. v. STA Group LLC*, IPR2024-00511 (PTAB).

3. Lead and Backup Counsel

Lead Counsel	**Backup Counsel**
James M. Heintz Reg. No. 41,828 **DLA Piper LLP (US)** One Fountain Square 11911 Freedom Drive, Suite 300 Reston, VA 20190-5602 Phone: + 1 (703) 773-4000 Fax: + 1 (703) 773 -5000 Jim.Heintz@us.dlapiper.com	Peter Nelson Reg. No. 77,478 **DLA Piper LLP (US)** 500 Eighth Street, NW Washington, DC 20004 Phone: +1 (202) 799-4000 Fax: +1 (202) 799-5000 Peter.Nelson@us.dlapiper.com

4. Service Information

Petitioner consents to electronic service at dla_msi_sta_iprs@us.dlapiper.com with copies to the email addresses for lead and backup counsel designated above.

B. Proof of Service on the Patent Owner

In accordance with 37 C.F.R. §§42.6(e) and 42.105, as identified in the attached Certificate of Service, a copy of this Petition in its entirety is being served electronically to the Patent Owner's attorney of record, as well as on counsel for Patent Owner in the District Court Litigation.

C. Power of Attorney

Powers of attorney are being filed with designation of counsel in accordance with 37 C.F.R. §41.10(b).

D. Standing

In accordance with 37 C.F.R. §42.104(a), Petitioner certifies that the '852 patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in this Petition.

E. Fees

The undersigned authorizes the Director to charge the fee specified by 37 C.F.R. §42.15(a) and any additional fees that might be due in connection with this Petition to Deposit Account No. 50-3266.

IX. CONCLUSION

All Challenged Claims of the ’852 patent should be found unpatentable for the reasons discussed in this Petition.

Date: January 30, 2024	Respectfully submitted, */s/ James M. Heintz* James M. Heintz Reg. No. 41,828 **DLA Piper LLP (US)** One Fountain Square 11911 Freedom Drive, Suite 300 Reston, VA 20190-5602 Phone: + 1 (703) 773-4000 Fax: + 1 (703) 773-5000 Jim.Heintz@us.dlapiper.com *Attorney for Petitioner, Motorola Solutions, Inc.*

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Petitioner certifies that this petition includes 7,740 words, as measured by Microsoft Word, exclusive of the table of contents, mandatory notices under §42.8, certificates of service, word count, claim listing, and exhibits.

CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. §§42.6(e) and 42.105 that on January 30, 2024, a true and correct copy of this Petition for *Inter Partes* Review of U.S. Patent No. 9,319,852 was served by emailing a copy of same (by agreement) to the following attorneys for the Patent Owner:

KLG-STA-Motorola@klgates.com

A courtesy copy was sent to the below counsel via electronic mail:

Brenna.Legaard@klgates.com

Respectfully submitted,

/s/ James M. Heintz