

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZOHO CORPORATION and
ZOHO CORPORATION PVT., LTD.
Petitioners,

v.

MEETRIX IP, LLC,
Patent Owner.

Case IPR2023-00382
U.S. Patent No. 9,843,612
(Claims 19-29)

PETITIONERS' REPLY TO PATENT OWNER RESPONSE

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TABLE OF EXHIBITS

Ex.	Description
1001	U.S. Patent No. 9,843,612 (“the ’612 patent”)
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1004	<i>Curriculum Vitae</i> for Dr. Henry H. Houh
1005	File History of Application No. 14/984,709 (the ’709 application)
1006	U.S. Patent No. 7,180,997 (“Knappe”)
1007	U.S. Patent No. 6,690,654 (“Elliott”)
1008	U.S. Patent No. 7,089,285 (“Drell”)
1010	Guichard <i>et al.</i> , “MPLS and VPN Architectures, A practical guide to understanding, designing and deploying MPLS and MPLS-enabled VPNs,” Cisco Press, 2001 (“VPN Textbook”)
1011	Declaration of Ingrid Hsieh-Yee, Ph.D., under 37 C.F.R. § 1.68
1012	U.S. Patent No. 3,060,265
1013	U.S. Patent No. 4,139,731
1014	U.S. Patent No. 3,601,530
1015	U.S. Patent No. 4,796,293
1016	A Primer on the T.120 Series Standard
1017	T.120 Standard (1996)
1018	U.S. Patent No. 6,237,025
1019	U.S. Patent No. 6,782,413
1020	U.S. Patent No. 6,980,526

Ex.	Description
1021	Caputo, “Cisco Packetized Voice & Data Integration,” McGraw-Hill, 2000
1022	De Moraes <i>et al.</i> , “The Internet Multicast from ITS: How it was Done and Implications for the Future,” IEEE Communications Magazine, January 1995
1023	U.S. Patent Publication No. 2004/0261116 A1
1024	U.S. Patent No. 6,850,496
1025	U.S. Patent No. 6,553,515
1026	U.S. Patent No. 6,633,848
1027	Computer Desktop Encyclopedia
1033	H.323 Standard
1034	US Patent No. 7,266,091
1035	US Patent No. 5,606,550
1040	WO2001018665 (“Hendricks”)
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1042	U.S. Patent No. 6,501,740
1043	U.S. Patent No. 6,424,647
1044	U.S. Patent No. 6,961,416
1045	U.S. Patent No. 6,011,851
1046	Declaration of C.J. Alice Chuang
1038	Declaration of Caroline Chang
1039	Declaration of Ryan Marton

I. INTRODUCTION

The Patent Owner Response (“POR”) fails to rebut the Petition or the Board’s preliminary findings that the challenged claims are unpatentable. Instead, the POR provides unsupported and conclusory attorney argument that in many instances addresses claim limitation that are not included in the challenged claims and largely fails to follow the legally appropriate approach to rebut the obviousness evidence presented in the Petition. The attorney arguments in the POR attempt to rebut obviousness by challenging prior art references individually instead of the presented combination, mischaracterizing the teachings of the prior art, and lack support from or citations to the record.

As a preliminary matter, Petitioners address two irrelevant disputes raised in the POR that lack any substance.

First, in the POR, Patent Owner disagrees with the level of ordinary skill in the art proposed in the Petition, requiring three years of experience relating to conferencing systems in packet-based networks, “because it is too specialized.” POR at 10-11. Instead, the Patent Owner proposes that a person of ordinary skill in the art (“POSITA”) would have **no** relevant experience in the field of the alleged invention but rather generically in “computer systems development.” *Id.* The ’612 patent specifically notes that the invention “relates to computer system architectures, and **more particularly to audio and video telecommunications for**

collaboration over hybrid networks.” Ex_1001 at 1:21-23. Indeed, the Board agreed that Petitioners’ proposed level skill in the art because “it is consistent with ... the asserted prior art and ’612 patent specification.” Institution Decision at 8. In addition, not only is Patent Owner’s proposal clearly wrong but this alleged dispute is actually irrelevant since none of the arguments in the POR rest on this alleged difference of the proper experience a POSITA must have. Having a few years of work experience in the actual field of the invention is not “too specialized” a requirement for a POSITA, but under either definition the result is the same: the challenged claims are unpatentable.

Second, in the POR, Patent Owner disagrees with Petitioners’ assertion that, for purposes of this Petition, “no claim term requires express construction for the Board to evaluate the patentability of the claims.” POR at 12. The POR then proceeds to list 13 claim terms with corresponding constructions adopted by a District Court in a litigation with another party. *Id.* However, only a handful of the listed terms actually appear in the claims of the ’612 patent. Moreover, the subsequent Patent Owner arguments do not actually rely on any of these claim constructions. Thus, this disagreement is also irrelevant. The application of the prior art references in the Petition to the actual claim language of the challenged claims does not require any of these constructions nor is it at odds with them.

Under the plain and ordinary meaning of the claim terms, the challenged claims are unpatentable.

II. RESPONSE TO PATENT OWNER ARGUMENTS

In response to the Petitioners' grounds of rejection and the Board's institution decision, the POR largely presents unsupported attorney argument with few citations to the record and virtually no support from the inventor declaration. But it is well established that "[a]rgument in the brief does not take the place of evidence in the record." *In re Schulze*, 346 F.2d 600, 602, (CCPA 1965). Further, the attorney argument challenging the obviousness rejections is largely based on improperly "attacking references individually where the rejection is based upon the teachings of a combination of references." *In re Merck & Co., Inc.*, 800 F. 2d 1091, 1097 (Fed. Cir. 1986). Thus, the Patent Owner's arguments fail to overcome the Board's findings that claims 19-29 are unpatentable.

A. The USPTO Has Not Determined that VPN Textbook (Ex_1010) Is Not Invalidating Prior Art

The POR asserts that because the applicant cited three Cisco Systems, Inc. publications during prosecution, somehow Ex_1010, a book published by "Cisco Press" cannot be the basis to invalidate the claims; Patent Owner alleges that Petitioner sused the VPN Textbook in the Petition "like a catalog of electronic components, to recreate the invention." POR at 14-15. First, the POR provides no legal basis for the proposition that just because a prior art reference was disclosed

during prosecution from a given publisher, all references from that publisher have somehow been considered and can no longer be used as invalidating prior art. This is clearly wrong. *See e.g., Hum Industrial Technology, Inc. v. Amsted Rail Company, Inc.*, IPR2023-00539, Paper no. 10 at 48-53 (PTAB 2023) (declining to exercise discretion under §325(d) even where the primary references were “cited on the patents’ corresponding Information Disclosure Sheets.”)

Second, this argument is improperly premised on the alleged use of the VPN Textbook as a “catalog of components” to recreate the alleged invention. It is not. Contrary to Patent Owner’s allegations, “the principal references” do disclose the implementation of a virtual private network as the type of network used in a video conferencing system. *See e.g.,* Ex_1006 at 4:58-61 and Ex_1007 at 4:20-31, 6:55-57. The VPN Textbook is used in combination with these references in each of the three grounds to show that the alleged invention is no more than “a combination of familiar elements according to known methods ... [that] does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (2007). As the Board noted, the VPN Textbook establishes that the “hub-and-spoke” topology relied upon in the ’612 Patent for the claimed virtual private network was “the most common” known method. Institution Decision at 15. Thus, contrary to Patent Owner’s assertion, the VPN Textbook is appropriately relied upon in the

Petition's Grounds in combination with other references to establish obviousness of the challenged claims.

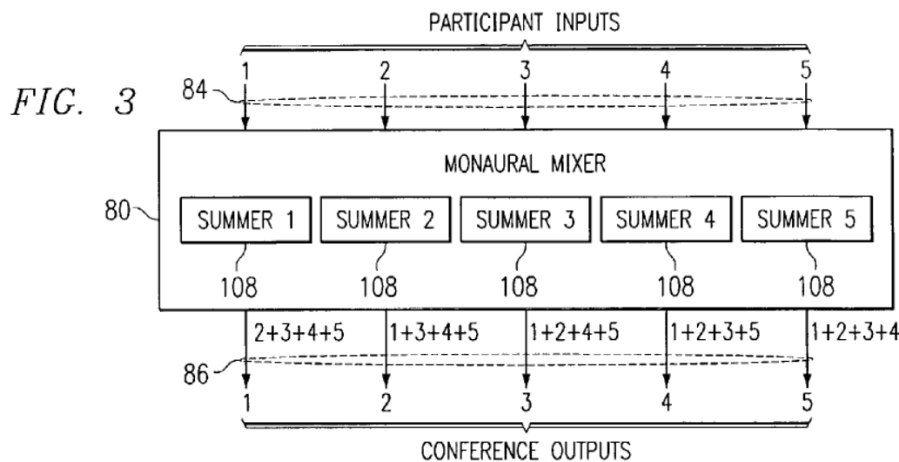
B. The Prior Art of Record Does Disclose The “Transmitting” Separate Audio Mixes to Different Clients

Patent Owner's assertion in section A of the POR that the prior art references relied on in the Petition fail to disclose “mixing of different audio streams comprising different input signals for different recipients” is inaccurate. POR at 17-19. While it is not clear exactly which limitations in the claims at issue Patent Owner is contending are not disclosed, it appears likely that Patent Owner is referring to the mixing and transmitting of audio data limitations [limitations 19.4-19.9] of claim 19 (and corresponding limitations in claim 25). The references in the Petition expressly disclose such limitations.

Specifically, the Knappe reference discloses a conference bridge (at a server) that receives audio and other data from remote clients (including a PSTN client), mixes received audio data and transmits different mixes of audio data to different remote clients. With reference to Figure 1, Knappe expressly discloses that “conference bridge 32 receives media from participating devices 16,” which Knappe describes as “capable of communicating real-time audio, video, and/or other information over the network 14.” Ex_1006, 4:63-64, 3:62-4:1. Thus, Knappe's conference bridge 32 receives “audio, video, and/or other information”

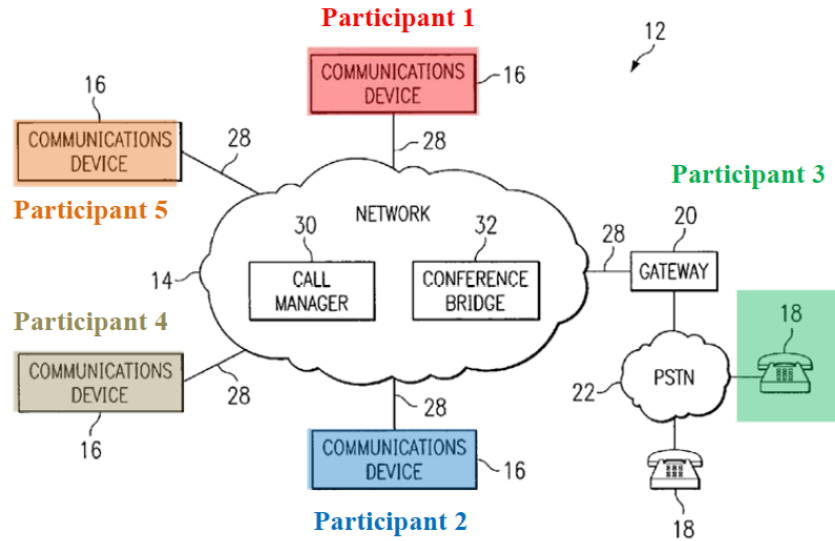
and “data” from the remote recipients. Ex_1003 ¶¶398-400; *see, e.g.*, Ex_1006, 1:29-41.

Knappe also explains that “monaural mixer 80 [of conference bridge 32] receives participant input streams.” Ex_1006, 6:59-7:11. Thus, a POSITA would have understood that the inputs to the monaural mixer include audio data streams.



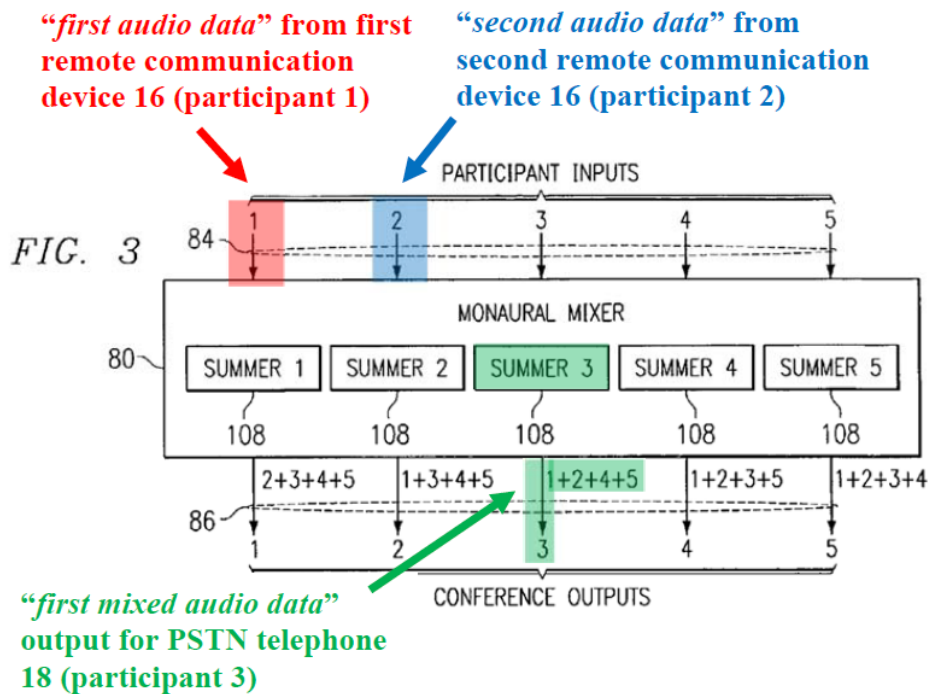
Id., FIG. 3; Ex_1003 ¶401.

Knappe does not identify which specific communications device 16 or PSTN telephone 18/gateway 20 (in Figure 1) corresponds with which specific participant 1-5 (in Figure 3). Ex_1003 ¶402. A POSITA reading Knappe, however, would have understood that this assignment of participant number is arbitrary. *Id.* Thus, for explanation purposes, and without limiting Knappe’s disclosure, provided below are participant numbers corresponding to devices in Figure 1:



Ex_1006, FIG. 1 (annotated); Ex_1003 ¶402. Using these participant numbers, Knappe teaches that the conference bridge 32 receives the first audio data from the first remote communication device 16 (participant 1) and also receives the second audio data from the second remote communication device 16 (participant 2).

Ex_1003 ¶444. Knappe also teaches that mixer 80 of the conference bridge 32 mixes the audio data from participant 1 and participant 2 into a mixed output stream for participant 3. Ex_1003, 6:59-7:11 (“output stream of participant 3 includes the audio inputs of participants 1-2 and 4-5); see Ex_1003, ¶¶243, 267, 323, 387, 401, 445. As shown below in Figure 3, Knappe’s mixer 80 includes summer 3 that mixes the streams from the first remote communications device 16 (participant 1) and second remote communications device 16 (participant 2) and outputs a mixed data stream (“a first mixed audio data”) comprising signals from participants 1+2+4+5 for PSTN telephone 18 (participant 3):

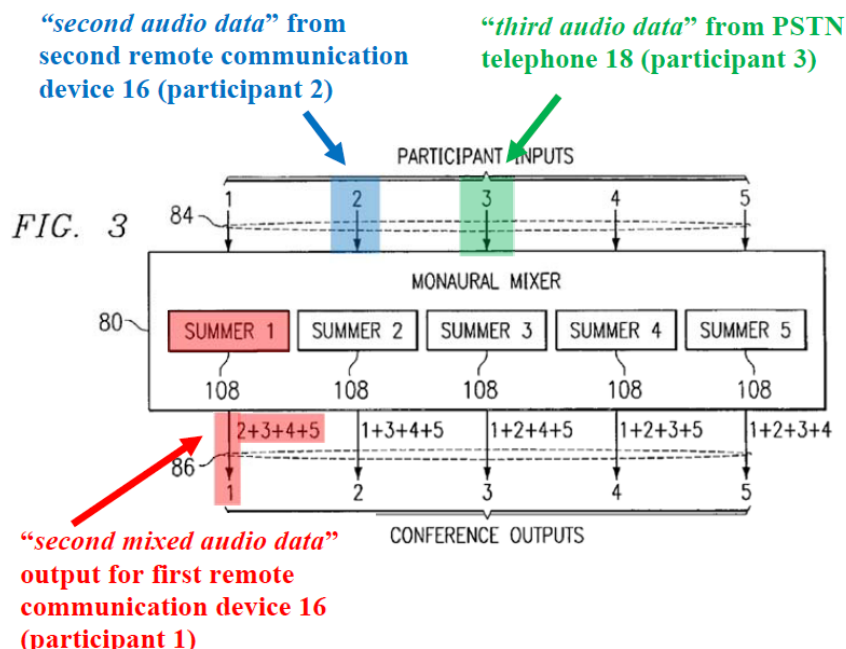


Ex_1006, FIG. 3 (annotated); Ex_1003 ¶446.

Similarly, with respect to limitation 19.5, Knappe teaches that the conference bridge 32 receives the second audio data from the second remote communication device 16 (participant 2) and also receives the third audio data from the PSTN telephone 18 (participant 3). Ex_1003 ¶449. The mixer 80 of the conference bridge 32 mixes the audio data from participant 2 and participant 3 into a mixed output stream for participant 1. Ex_1006, 6:59-7:11 (“output stream of participant 1 includes the audio inputs of participants 2-5”); *see also* Ex_1003 ¶¶243, 267, 323, 387, 401, 450.

As shown below in exemplary annotated Figure 3 of Knappe, mixer 80 combines streams from the second remote communications device 16 (participant

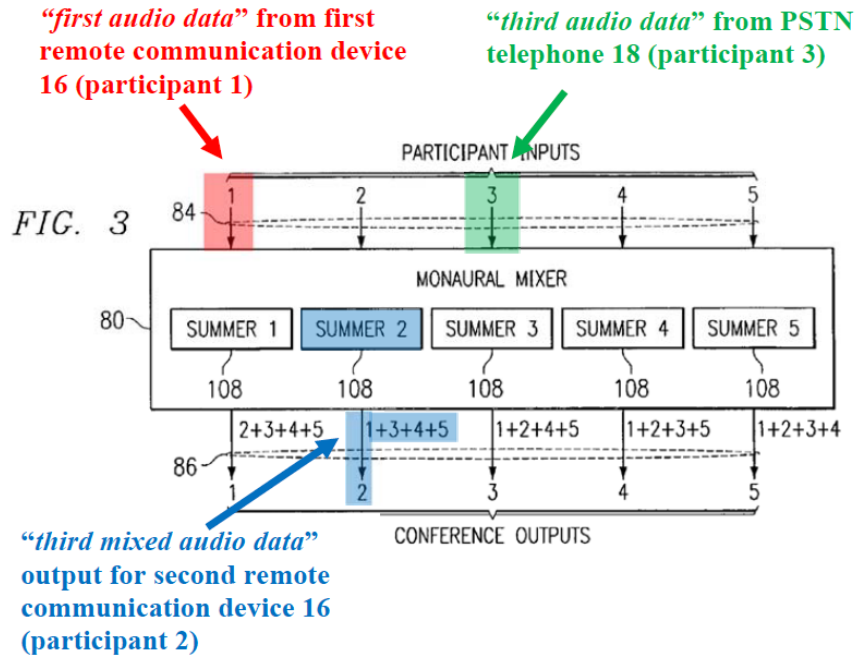
2) and the PSTN telephone 18 (participant 3) and outputs mixed data stream (“a second mixed audio data”):



Ex_1006, FIG. 3 (annotated).; Ex_1003 ¶¶450-451.

Finally for limitation 9.6, Knappe also teaches that mixer 80 of the conference bridge 32 mixes the audio data from participant 1 and participant 3 into a mixed output stream for participant 2. Ex_1006, 6:59-7:11 (“output stream of participant 2 includes the audio inputs of participants 1 and 3-5”); Ex_1003 ¶¶ 243, 267, 323, 387, 401, 454.

As shown below in exemplar annotated Figure 3 of Knappe, mixer 80 includes summer 2 that mixes the streams from the first remote communications device 16 (participant 1) and the PSTN telephone 18 (participant 3) and outputs a mixed data stream (“a third mixed audio data”):



Ex_1006, FIG. 3 (annotated); Ex_1003 ¶¶454-455. Therefore, contrary to Patent Owner’s assertion, Knappe teaches mixing audio data from different clients and sending the mixed data to a separate remote clients. Each remote client receives different mixed audio data.

C. Petitioners’ Response to Section B of POR

In section B of the POR, Patent Owner asserts the prior art of record fails to disclose limitation 19.1.1. POR at 19-20. Patent Owner does not expressly identify what part of this limitation is not disclosed but instead contends that because two remote parties are not connected in Elliot (which is wrong) “the [Elliot] system is not subject to modification with other references, including Knappe.” *Id.* However, Patent Owner’s assertion is irrelevant because Petitioners do not contend that the Elliot system is modified by other references. To the

contrary, for limitation 19.1.1 Petitioners assert that it would have been obvious to include Elliot's collaboration data (e.g., application sharing data, web browsing data, and other collaboration data per the T.120 standard) in the additional information (the "other information") exchanged by the communication devices in Knappe's system. Petition at 35-37. In other words, Petitioners rely on Elliot to modify Knappe, not the other way around as Patent Owner contends.

In addition, Patent Owner's contention that a POSITA would not combine Elliot with Knappe is based on a misrepresentation regarding Elliot's scope. Patent Owner contends that Elliot is limited to one-to-one interactions and would not apply to a multipoint conferencing system like Knappe's. However, Elliott does not pertain solely to isolated one-to-one interactions. Indeed, Elliott explicitly states that its system "also enables services for one-to-many and many-to-many IP-based collaboration[.]" Ex_1007 at 2:10-13; *see also id.* at 7:58-61 (discussing "multiple 1:1, 1:n, n:1, and n:n sessions"). Thus, the Patent Owner bases its argument on a false premise.

Moreover, a POSITA would have been motivated to include Elliot's collaboration data in Knappe's system. A POSITA, when considering the teachings of Knappe, also would have considered the teachings of Elliott since they are analogous and pertain to multiparty conferencing. Ex_1006, Abstract, 3:26-29; Ex_1007, Abstract; Ex_1003 ¶343. Also, both Knappe and Elliott support

conferencing across a hybrid network, with computer and PSTN telephone conference participants. *See, e.g.*, Ex_1006, 3:41-49, FIG. 1; Ex_1007, 5:35-39, 6:1-11, 8:16-39, FIG. 1; Ex_1003 ¶343.

A predictable and beneficial result of combining Knappe and Elliott includes the sharing of collaboration data in a multiparty conference. Ex_1003, ¶344. Knappe teaches a communications system capable of “transmitting audio, video, voice, data and other suitable types of ... traffic between source and destination endpoints.” Ex_1006, 3:26-29; Ex_1003 ¶345. To a POSITA, transmitting “data” or other “traffic” would suggest the transmission of various types of data during the conference call to facilitate collaboration. Ex_1003 ¶345. A POSITA would have recognized that sharing collaboration data in Knappe is desirable since it beneficially provides additional ways to convey information among participants in a multiparty conference. *Id.*

Notably, Elliott evidences this understanding, expressly teaching sharing of “collaborative Web browsing, audio conferencing, video conferencing, and application sharing.” Ex_1007, 1:43-44; Ex_1003 ¶346. And Elliott discloses connecting calls “over the public switched telephone network (PSTN) 30” using “session server 12 ... that follows the ITU T.120 standard” capable of “support[ing] real-time, multi-point data communications,” the server “able to set up to conduct video conferences, audio conferences, and data conferences with

application sharing,” as well as “[c]ollaborative Web browsing.” Ex_1007, 5:35-61; Ex_1003 ¶¶346-347

It would have been obvious to a POSITA, in view of Elliott’s teachings, to implement Knappe’s transmission of various types of data as collaboration data, because this type of collaboration data would allow a greater variety of information among the participants, improving the experience and enhancing the effectiveness of collaboration in a variety of contexts. Ex_1003 ¶348. Indeed, other patents and printed publications confirm that it was known at the time that additional collaboration data improves the conferencing experience. *Id.* ¶349; *see also* Ex_1018, 1:29-39 (“interactive data sharing significantly enhances the effectiveness of collaboration in a variety of contexts”). Indeed, sharing collaborative information such as written or graphic material during a video conference had been known in the conferencing art for over 30 years prior to the priority date of the ’612 patent. Ex_1003 ¶350; *see also e.g.* Ex_1014, Abstract, 17:20-41 (claims 7-11), 18:30-49 (claims 21-24). Accordingly, a POSITA would have recognized that sharing collaboration data (e.g., web browsing data, application data, and data provided by the T.120 standard, as Elliott teaches) would be beneficial to Knappe’s participants. Ex_1003 ¶351.

Such a combination would have simply involved combining prior art elements—collaboration data taught by Elliott with the conferencing system of

Knappe— according to known elements to yield predictable results, namely allowing participants in Knappe’s system to share various types of data during a conference for collaboration purposes, including using standard collaboration data that was specifically designed for a multimedia conference in an environment such as that disclosed in Knappe. *Id.* ¶352. Additionally, the combination of Knappe and Elliott is merely the ordinary use of common techniques (transmitting collaboration web browsing data, application sharing data, and collaboration data per the T.120 standard as Elliott teaches) to improve the similar conferencing system of Knappe in the same way by allowing for enhanced collaboration among participants. *Id.*

In section B of the POR, Patent Owner also argues that a POSITA would not be motivated to integrate VPN technology from Elliot. POR at 20. Patent Owner’s position here misapprehends Petitioners’ argument and the actual prior art combination relied on for the VPN tunneling limitations. For these limitations, Petitioners rely on Knappe in combination with Elliot and *the VPN Textbook* as viewed by one skilled in the art. But Patent Owner’s arguments fail to address anything other than Knappe and Elliot. This alone is improper. *See In re Merck*, 800 F.2d at 1097 (“The test is whether the references, *taken as a whole*, would have suggested the invention to one of ordinary skill.”).

Moreover, Petitioners' argument regarding the VPN tunneling elements is that a POSITA would have been motivated to utilize VPN tunneling in Knappe's conferencing system because VPN tunneling was a known common technique for providing secure communications with predictable results. *See e.g.*, Petition at 17-24, 37-40. Specifically, Knappe's communications system transmits "audio, video, voice, data and other suitable types of... traffic between source and destination endpoints" across "network 14 [which] is the Internet." Ex_1006, 3:26-58. It was known, however, that data transmitted over public IP networks is vulnerable to eavesdropping and other problems since the transmission is not secure. This is evidenced, for example, by the VPN Textbook which states that "more and more business-to-business traffic takes place over the Internet" and that this type of communication is "riddled with security issues." Ex_1003 ¶¶356-361; Ex_1010 at 119. VPN's and VPN tunneling were a known solution for securing communications over public networks. Ex_1003 ¶¶356-361; Ex_1010 at 115 ("A Virtual Private Network (VPN) ... [provides] connectivity amongst multiple sites ... with the same access or security policies as a private network."). Thus, it would have been obvious to a POSITA to use VPNs and VPN tunneling with Knappe's multiparty conferencing to secure communications over the Internet. Ex_1003 ¶¶356-361.

The obviousness of adding a VPN tunneling feature to Knappe's conferencing system is further demonstrated by the work of others making similar feature combinations as evidenced by other prior art patents. Ex_1003 ¶¶356-361; *see, e.g.*, Ex_1020, 2:65-3:3, 5:52-55 (disclosing "need for a videoconferencing system ... for delivering secure ... services over an IP network" by using a "VPN ... over public networks ... which is encrypted to make it secure from outside access and interference"); Ex_1019, 2:66-3:1, 4:23-27, 6:36-41 (describing a "conference bridge application" that transmits data "over public networks, using technologies such as ... [a] Virtual Private Network (VPN)"). Therefore, a POSITA would have found it obvious to combine Knappe's conferencing system with the VPN technology described in Elliott and the VPN Textbook. Ex_1003 ¶¶356-361; Ex_1023 ¶¶[1412], [1452]-[1453] (describing "VPN connectivity," including "hub-and-spoke or mixed topologies" in the context of "services [that] include Internet Access, ... chat and Video-conferencing etc.").

Consistent with well-known approaches, Elliott teaches utilizing a "virtual private network (VPN)... which uses IP or IP-tunneling" to transmit "voice, fax, data, video" and "[o]ther types of collaboration... data." Ex_1007, 2:66-3:1, 4:29-34, 6:53-54; Ex_1003 ¶151. In view of Elliott's VPN and VPN Textbook's teachings, it would have been obvious to a POSITA to utilize VPN tunneling when communicating audio, video, and collaboration data across Knappe's Internet

network 14 because VPN tunneling would make the transmitted data secure from outside access and interference. Ex_1003 ¶¶356-361; *see* Ex_1020, 5:52-55 (“VPN refers to a network that is carried over public networks, but which is encrypted to make it secure from outside access and interference.”). Additionally, a POSITA would have understood that VPNs are beneficial because they reduce the need to lease private data lines, which reduces or avoids the costs for implementing a private network by communicating securely over the Internet. *See, e.g.,* Ex_1026, 44:10-12 (“[O]ffices [] create virtual private networks (VPNs) to save money on remote access and interoffice connectivity.”).

Moreover, the results would have been predictable and there would have been a reasonable expectation of success in the combination given that Knappe and Elliott describe similar conferencing systems. *See, e.g.,* Ex_1006, Abstract, 3:26-29, Fig. 1; Ex_1007, Abstract, Fig. 1. This is especially so since VPN tunneling was conventional. *See, e.g.,* Ex_1019, 4:23-27, 6:36-41; Ex_1007, 5:49-56. Confirming this, Dr. Houh explains that he “personally [before the earliest claimed priority date of the ’612 Patent] configured, deployed and utilized VPN technology for carrying VoIP traffic using the NBX 100 system, which was also capable of performing conference calls.” Ex_1003, ¶ 365. Any modification needed to the teachings of Knappe, to accommodate the teachings of Elliott, would have been within the level of ordinary skill in the art. Ex. 1003, ¶¶ 360-365. As Dr. Houh

explains, “the combination of Knappe and Elliott is merely the ordinary use of the common technique of VPN tunneling of conferencing data, as disclosed in Elliott, in the similar conferencing system of Knappe to yield predictable results.” *Id.* at ¶ 360. Thus, there is a motivation to combine standard VPN tunnel technology in Knappe’s system. *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380 (Fed. Cir. 2023) (“If there's a known technique to address a known problem using ‘prior art elements according to their established functions,’ then there is a motivation to combine....”).

D. Petitioner’s Response to Section C of POR

In section C of the POR, Patent Owner asserts a series of irrelevant, incorrect and disjointed arguments (most of which are not supported by any evidence in the record) apparently in effort to assert the prior art does not disclose the “VPN tunnel” limitations of claims 19 and 25. POR at 20-26.

Patent Owner first argues because Knappe “does not disclose communication using VPN tunnel” Petitioner “has combined Elliot (Ex_1007) with Knappe or Drell.” POR at 21. Again, Patent Owner misconstrues the actual obviousness combination Petitioner relies on for the “VPN tunnel” limitations. Petitioners do not rely on Drell at all for this – but instead, as explained above, relies on Knappe in combination with Elliot and the VPN Textbook to show that a POSITA would be motivated to and know how to implement well known VPN

tunneling techniques within Knappe's conferencing system. Patent Owner does not address this combination. Instead, Patent Owner argues that nothing in Elliot "would suggest to a person or [sic] ordinary skill in the art that VPN tunnel should or could be implemented to protect voice over the Elliot POTS phone connection or access to a publicly-available URL on the Web." POR at 22. But there is no requirement in any of the '612 patent claims that a VPN or VPN tunnel be used to secure a publicly-available URL or a direct PSTN connection.

Next, Patent Owner again asserts that due to differences between the conference systems in Elliot and Knappe, a POSITA would not be motivated to combine Elliot and Knappe. POR at 22-23. But as explained above Petitioner has shown that a POSITA would be motivated and able to combine conventional VPN tunnel technology with Knappe's conferencing system as evidenced by the disclosures in the VPN Textbook, Elliot and the knowledge of POSITA. Supra Section II.C.

Next, Patent Owner argues (with no evidentiary support), that the VPN and VPN tunnel referenced in Elliot "can only be understood as directed to 'network 18,' which is used to connect two computers over the Internet, and not audio data, mixed or otherwise." POR at 23. Patent Owner's attorney argument carries no evidentiary weight. *In re Schulze*, 346 F.2d at 602 ("[a]rgument in the brief does not take the place of evidence in the record"). But even if Patent Owner's

argument did carry weight, it's wrong. In fact, Elliot expressly discloses securing the transmission of audio data with VPN tunnels. Elliot discloses a conferencing system that allows for multi-media collaboration between multiple remote participants, including Internet-based and PSTN clients. Ex_1007, Abstract & FIG. 1. Elliott teaches "collaborative Web browsing, audio conferencing, video conferencing, and application sharing." Ex_1007, 1:40-44; Ex_1003 ¶133. Elliott further teaches the use of "a virtual private network (VPN) ... which uses IP or IP-tunneling" for the transmission of "voice, fax, data, video" and "[o]ther types of collaboration ... data" during the conference. Ex_1007, 2:66-3:1, 4:29-34, 6:53-54; Ex_1003 ¶133.

Figure 1 of Elliott shows a "session server 12 [that] is a conference server that follows the ITU T.120 standard" which "contains a series of communication and application protocols and services that provide support for real-time, multi-point data communications." Ex_1007, FIG. 1, 5:49-54.

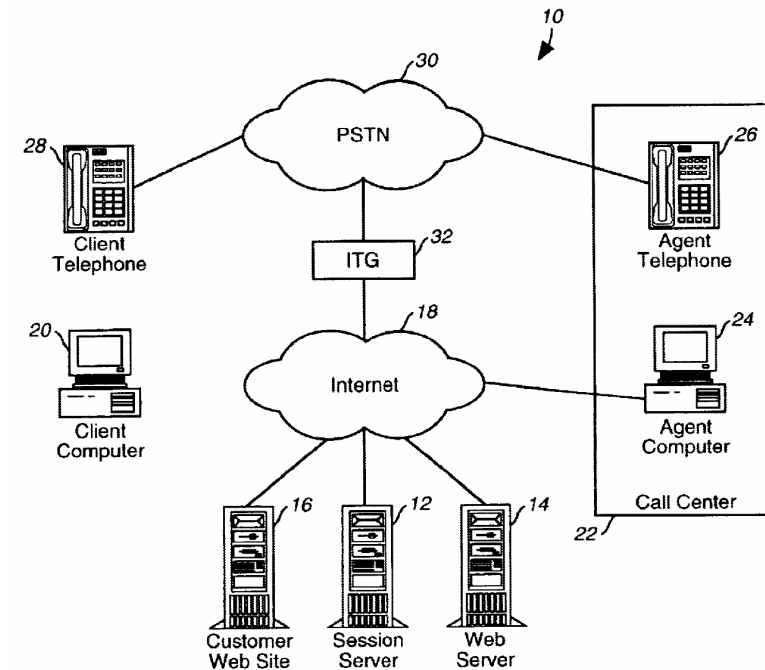


FIG. 1

Id., FIG. 1. “[N]etwork 18 can be either a public or a carrier supported virtual private network (VPN) or local area network (LAN) which uses IP or IP-tunneling. Ex_1007, 4:28-32; Ex_1003 ¶133. This network allows for secure transmission of audio data via a VPN tunnel. Ex_1003 ¶ 234-235.

With respect to transmission of mixed audio data via a VPN tunnel, Knappe discloses transmission of the claimed mixed audio data (*see e.g.*, Petition at 29-36) and it would have been obvious to utilize conventional VPN tunnels (as disclosed in Elliot and the VPN Textbook) within Knappe’s conference system for transmission of mixed audio data. *See e.g.*, Petition at 36-40.

Next, Patent Owner argues that the VPN tunnel limitations are not obvious because Elliot does not disclose a system wherein data is delivered via a VPN

tunnel to a moderator where the data is “decrypted” before being shared with the PSTN client. POR at 23-24. But the ’612 patent does not require decryption of any audio data let alone decryption of audio data by the moderator before transmission to a PSTN client.

Next, Patent Owner asserts (without any evidentiary support) the VPN tunnel limitations are not obvious because none of the prior discloses use of a “VPN bridge.” POR at 24-25. But no claim of the ’612 patent requires a VPN bridge.

Finally, Patent Owner argues that the prior art of record does not disclose a VPN tunnel as was construed by the District Court (“a private network of securely connected appliances configured within a public network”). POR at 25-26. But as explained above Elliot expressly discloses a VPN tunnel. Ex_1007, 4:28-32 (“[N]etwork 18 can be either a public or a carrier supported virtual private network (VPN) or local area network (LAN) which uses IP or IP-tunneling.”). Moreover, Dr. Houh explained that before the ’612 patent’s priority date, it was well known to implement VPN tunnels. Ex_1003 ¶¶ 83-90. He explained that “[t]unneling refers to a networking technique whereby a packet is encapsulated in another network packet, typically so that it can traverse an underlying network that does not support the capability required by the encapsulated packet.” Ex_1003 ¶ 83. He explained that such encapsulated IP tunneling was standardized and “described in

RFC 1853 which was published in the mid-1990s.” *Id.* He further explained encapsulated packet tunneling was implemented and standard in both MBone and IPSec – both of which were common network security approaches in the 1990’s. Ex_1003, ¶¶ 83-90. A POSITA, with knowledge of these standard tunneling approaches, would have known to implement VPN tunneling disclosed in Elliot in Knappe’s conferencing system. Ex_1003, ¶¶ 411-421, 429-434, 463-478.

E. Petitioners’ Response to Section D of the POR

In Section D of the POR, Petitioner makes two of the same arguments it made in section C regarding the VPN tunnel limitations. POR at 27-28. Namely it contends that (1) the VPN tunnel limitations are not obvious because Elliot does not disclose a system wherein data is delivered via a VPN tunnel to a moderator where the data is “decrypted” before being shared with the PSTN client, and (2) the VPN tunnel limitations are not obvious because none of the prior discloses use of a “VPN bridge.” *Id.* These arguments fail for the reason provide in Section II.D of this reply.

F. Petitioners’ Response to Section E of the POR

In Section E of the POR, Patent Owner again argues that POSITA would not combine Elliot and Knappe. POR at 28-29. These arguments fail for the reasons recited above.

G. Petitioners' Response to Section F of the POR

In Section F of the POR, Patent Owner again argues that POSITA would not combine Elliot and Knappe. POR at 29-30. These arguments fail for the reasons recited above.

Patent Owner also contends that the '612 patent claims at issue in the Petition are not obvious because the prior art does not teach or disclose "distinct mixers" (i.e. more than one mixer). But the '612 claims at issue in the Petition do not require more than one mixer.

H. Petitioners' Response to Section G of the POR

In section G of the POR, Patent Owner again asserts that the prior art of record does not disclose "collaboration data" because a POSITA would not combine Elliot with Knappe. But as explained above in section II.C of this Reply, a POSITA would have been motivated to include Elliot's collaboration data (e.g., application sharing data, web browsing data, and other collaboration data per the T.120 standard) in the additional information (the "other information") exchanged by the communication devices in Knappe's system. *See supra*, Section II.C.

Given that none of the arguments raised by Patent Owner in the POR successfully rebut any of Petitioners' arguments as to claims 19-29 of the '612

patent, or the Board's initial determinations as to these claims, all of the challenged claims 19-29, should be finally deemed unpatentable.

III. CONCLUSION

For the reasons given above, Petitioner has demonstrated the unpatentability of claims 19-29 of the '612 patent.

Respectfully submitted,

Date: January 12, 2024

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CERTIFICATE OF WORD COUNT PURSUANT TO 37 C.F.R. § 42.24(D)

The undersigned hereby certifies that the word count for the above
Petitioner's Reply to Patent Owner's Response is 4,767, which is less than the
5,600 words allowed under 37 CFR § 42.24(c)(1).

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CERTIFICATE OF SERVICE

The undersigned certifies that on January 12, 2024, a copy of this
PETITIONERS' REPLY TO PATENT OWNER RESPONSE and all supporting
exhibits were provided via electronic mail (by consent) to the Patent Owner by
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