

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 IPR2023-00379
Patent 9,094,525
(Claims 9-20)

PATENT OWNER MEETRIX IP, LLC'S SUR-REPLY

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	STATEMENT OF RELIEF REQUESTED	1
B.	SUMMARY OF PATENT OWNER’S ARGUMENTS	1
II.	PATENT OWNER’S SUR-REPLY IN RESPONSE TO PETITIONERS’ REPLY	1
A.	A POSITA WOULD NOT BE MOTIVATED TO COMBINE ELLIOTT WITH KNAPPE AND/OR DRELL	1
B.	THE PRIOR ART DOES NOT RENDER OBVIOUS THE “MIXING” LIMITATION OF CLAIM 9	3
C.	THE PRIOR ART DOES NOT RENDER OBVIOUS THE “TRANSMITTING” LIMITATION OF CLAIM 9 AND THE “FIRST MIXER” LIMITATION OF CLAIM 17	5
D.	THE PRIOR ART DOES NOT TEACH VPN (CLAIMS 13 AND 14)	6
E.	THE PRIOR ART DOES NOT TEACH “ENCODING” (CLAIMS 15 AND 16)	7
F.	NEITHER DRELL NOR KNAPPE TEACH “VOIP DECODER” (CLAIM 17)	8
G.	THE PRIOR ART DOES NOT TEACH “ENCODING “VOIP ENCODER CONFIGURED TO COMPRESS AUDIO DATA” LIMITATION (CLAIM 17)	9
H.	THE PRIOR ART DOES NOT RENDER OBVIOUS THE “SECOND MIXER” LIMITATION (CLAIM 17)	9
I.	THE PRIOR ART DOES NOT RENDER OBVIOUS THE “THIRD MIXER” LIMITATION (CLAIM 18)	11
J.	THE PRIOR ART DOES NOT RENDER OBVIOUS THE “VPN	

	TUNNEL” LIMITATION (CLAIM 19-20).....	11
III.	CONCLUSION.....	13

EXHIBIT LIST

Previously Filed – Petitioners

Ex. No.	Description
1001	U.S. Patent No. 9,094,525 (“the ’525 patent”)
1002	Patent Assignments for the ’525 patent
1003	Declaration of Dr. Henry H. Houh
1004	<i>Curriculum Vitae</i> for Dr. Henry H. Houh
1005	File History of Application No. 13/674,233 (the ’233 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	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
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
1031	RFC 2401
1038	Citrix Claim Construction Order

1046	Declaration of C.J. Alice Chuang
1047	Declaration of Carolyn Chang
1048	Declaration of Ryan J. Marton

Previously Filed – Patent Owner

Ex. No.	Description
2001	Declaration of Thomas Dye
2002	Memorandum Opinion and Order Regarding Claims Construction dated December 1, 2017

I. INTRODUCTION

Patent Owner Meetrix IP, LLC (“Patent Owner”) respectfully submits this Patent Owner Sur-Reply in response to the Petitioners’ Reply (“Reply”). It is being timely filed on or before February 23, 2024, pursuant to the Scheduling Order issued in this proceeding and the Stipulation to Modify Due Date 3. Paper 7 (Scheduling Order) at 12; Paper 15 (Stipulation to Modify Due Date 3).

A. STATEMENT OF RELIEF REQUESTED

Pursuant to 35 U.S.C. § 316, Patent Owner respectfully requests that the Board find that originally issued claims 9-20 of the ’525 Patent are not invalid based upon the instituted grounds of rejection.

B. SUMMARY OF PATENT OWNER’S ARGUMENTS

The Board instituted *inter partes* review on claims 9-20, utilizing Drell, Knappe, and/or Elliott.

Claims Challenged	35 U.S.C. § ¹	Basis/References
9–20	103(a)	Drell, ² Knappe, ³ Elliott ⁴

Paper 6 (Decision Granting Institution) at 7.

II. PATENT OWNER’S SUR-REPLY IN RESPONSE TO PETITIONERS’ REPLY

A. A POSITA Would not be Motivated to Combine Elliott with Knappe and/or Drell

Petitioner argues that the Patent Owner’s arguments about the motivation to

combine Knappe and Elliott are “irrelevant.” Reply at 3. Indeed, the Patent Owner explained how a POSITA would not be motivated to combine *any* of the three references: Drell, Knappe and Elliott.

In the Declaration of Mr. Dye, Mr. Dye explains each. First, “Drell teaches an improvement to ‘traditional’ video conferencing systems, namely, a more efficient manner to increase the amount of video conferencing stations without the use of expensive essential hardware such as “IMUXs.” Exhibit 2001 (Dye Decl.) at ¶12. Second, “Knappe seeks to solve a problem in the art related to audio quality on traditional conference calls. Knappe is directed to ‘enhancing’ the quality of the moderator’s audio communication relative to subordinate participants.” *Id.* at ¶14. Third, “Elliott teaches an improvement on ‘call center’ technology. Elliott teaches the use of PSTN for talking point-to-point, plus sharing a computer program separately so that the call participants can view a website.” *Id.* at 10.

Neither Drell nor Knappe disclose an understanding of the requirements of the different mixers and therefore a POSITA would not be motivated to combine same. *Id.* at 10. Further whereas Drell discloses conference scenarios involving the simultaneous connections of multiple parties within a unified call, Elliott pertains solely to isolated one-to-one interactions. *Id.* at 26. Therefore, “combining either Drell’s or Knappe’s concepts with Elliott’s is inherently improper, as the

systems have different objectives.” *Id.*

B. The Prior Art Does Not Render Obvious the “Mixing” Limitation of Claim 9

Petitioners argue that a POSITA would be motivated to combine Drell with Knappe. Reply at 5. Petitioner suggests that Drell teaches a system that ‘combines audio and video data received from remote conference endpoints with locally generated data.’ Reply at 6. Petitioner contends that Knappe “teaches mixing and outputting streams that ‘include[] the media of all other participants.’” *Id.* However, Petitioners’ fundamental understanding of Drell and Knappe is incorrect.

Drell teaches an improvement to **traditional** video conferencing technology: “Drell teaches an improvement to ‘traditional’ video conferencing systems, namely, a more efficient manner to increase the amount of video conferencing stations without the use of expensive essential hardware such as ‘IMUXs.’” Exhibit 2001 (Dye Decl.) at ¶12. The Drell specification explains that traditional video conferencing solutions are expensive and required MCUs with a “dedicated Inverse Multiplexer (“IMUX”).” Exhibit 1008 (Drell) at 1:55-59. In other words, Drell is directed to creating a software-based IMUX in lieu of a hardware-based IMUX. *Id.* at 2:6-9. “The IMUX functions are implemented in a software-based *circuit switch* operable to aggregate a plurality of processing trains to a wideband serial data stream.” *Id.* In other words, Drell simply improves a traditional dedicated circuit switched video conferencing system by offering a software

IMUX in lieu of a hardware IMUX.

Knappe seeks to solve a problem in the art related to audio quality on traditional conference calls. Exhibit 2001 (Dye Decl.) at ¶14. With traditional conference calls multiple speakers tend to “step-on” each other “such that the resultant audio is incomprehensible.” Exhibit 1006 (Knappe) at 1:49-55. Thus, Knappe is directed to “enhancing the intelligibility of a moderator during a multiparty communication session.” *Id.* at 1:59-63. In other words, Knappe is directed to improving the quality of a moderator’s audio communications.

While both Drell and Knappe deal with traditional video conferencing and conferencing systems, the ‘525 Patent is directed to “computer system architecture, and more particularly to audio and video telecommunications for collaboration over hybrid networks.” *See e.g.* Exhibit 1001 (‘525 Patent) at 1:17-20. At their core, the Patents-in-Suit teach a system and method of achieving, multi-participant, audio/video conferencing, over the Internet, using multicasting. Exhibit 2001 (Dye Decl.) at ¶ 3. As such, no “POSITA would combine Drell with Knappe to achieve the technology disclosed” in the ‘525 Patent given their divergent technologies. *Id.* at ¶ 20.¹

Indeed, Drell simply says a single mixer combines “in the broadest and most

¹ In the POR at p. 18, Patent Owner mistakenly cited ¶ 20 rather than ¶ 21 of Mr. Dye’s Declaration supporting the proposition that a POSITA would not be motivated to combine the references.

general sense.” Exhibit 1008 (Drell) at 5:8-25. Knappe says that mixing can be a “suitable mix dictated by the type of multiparty session and/or the participant.” Exhibit 1006 (Knappe) at 5:33-39. Neither Drell nor Knappe reflect or disclose an understanding of the requirements of the different mixers or would teach or suggest this to a person of skill in the art— alone or in combination. Exhibit 2001 (Dye Decl.) at ¶20.

C. The Prior Art Does Not Render Obvious the “Transmitting” Limitation of Claim 9 and the “First Mixer” Limitation of Claim 17

Claim 9.g teaches: “**transmitting the mixed audio-video data** to the first remote computer and the second remote computer.”

Claim 17.c. teaches: “**a first mixer** configured to mix decoded audio data received by the local moderator computer from the telephone through the PSTN with audio data received by the local moderator computer from a local audio input device and video data received by the local moderator computer from a local video input device into an audio-video stream for transmission through an Internet to a first remote computer and a second remote computer.”

Neither Knappe nor Drell disclose either the “transmitting” limitation or the “first mixer” limitation. Focusing on the “mixer” limitation highlights the lack of teachings in either piece of prior art. Fundamentally, Knappe does **not** mix voice signals as claimed. For example, Knappe states “[i]f the moderator is not speaking,

at step 208 the participant voice streams are transmitted to all participants.” Exhibit 1006 (Knappe) at 9:13–15. Further, Knappe discloses a centralized system wherein processes like combining data to every user *etc.* are done using a traditional conference bridge and call manager. The Patent Owner has previously explained how Drell also does not mix since it is directed toward traditional video conferencing. This is in stark contrast to the ‘525 Patent’s teachings of *multiple* discrete mixers (“first mixer,” “second mixer,” (claim 17), “third mixer” (claim 18), *etc.*). Accordingly, A POSITA would not be motivated to combine Drell with Knappe because neither Drell nor Knappe “disclose an understanding of the requirements of the different mixers” as is taught by the ‘525 Patent. Exhibit 2001 (Dye Decl.) at ¶20.

D. The Prior Art Does Not Teach VPN (Claims 13 and 14)

Fundamentally, the Patents-in-Suit “teach systems and methods of achieving multi-participant, audio/video conferencing, over the Internet, using **secure connections** and multicasting.” Exhibit 2001 (Dye Decl.) at ¶6 (emphasis added). Specifically, claims 13 and 14 of the ‘525 Patent teach a method of transporting a mixed audio-video data through a Virtual Private Network.

Elliott is directed to independent call sessions between the remote party and the call center. Although Elliott mentions VPN briefly, it is not suggested for the conference call between multiple parties as required in the claim. Exhibit 2001

(Dye Decl.) at ¶6. Further, “the discussion in Elliott related to VPNs is never in relation to mixed audio as claimed.” *Id.* at ¶23.

Petitioners also suggest that it would have been obvious “to use a VPN in Drell’s system when communicating audio, video, and collaboration data to provide the system with secure communications.” Reply at 9. However, “Drell discloses conference scenarios involving the simultaneous connection of multiple participants within a unified call. In contrast, Elliott’s disclosure pertains solely to isolated one-to-one interactions.” Exhibit 2001 (Dye Decl.) at ¶26. Therefore, combining Drell with Elliott is “inherently improper, as the systems have different objectives.” *Id.* at ¶26.

E. The Prior Art Does Not Teach “Encoding” (Claims 15 and 16)

Claim 15 teaches “**encoding the mixed audio-video data** before the transmitting of the mixed audio-video data to the first and second remote computers.” As an initial matter, because transmitting mixed audio-video data is not taught or suggested by the prior art of record, “encoding” in accordance with claims 15 and 16 are also not taught or suggested.

Petitioners argue that “Drell teaches the use of codecs to encode data before transmission over the Internet and Knappe supplements that teaching with disclosures about encapsulation of VoIP packets before transmission.” Reply at 10. This is incorrect.

Knappe teaches the codec (coder/decoder) at the communication device. It does not provide any information regarding encoding of the mixed audio data and transmitting the encoded mixed data to the remote device. Conversely, Drell employs a straightforward method blending the audio and video data from all participants, whether they are from near conference endpoints or the remote endpoints. Due to this fundamental difference, Knappe's design lacks the motivation to be integrated with Drell's approach.

F. Neither Drell Nor Knappe Teach "VoIP Decoder" (Claim 17)

Claim 17.a teaches: "a voice over IP decoder configured to decode audio data received by the local moderator computer from a telephone through a public switched telephone network (PSTN)."

Petitioners suggest combining Drell and Knappe would render obvious the VoIP decoder limitation. Reply at 11. However, there is a fundamental difference between VoIP decoding and audio codecs. Petitioners attempt to conflate the two by suggesting that Drell teaches that "audio codec 408 receives an audio data stream and decodes in accordance with a standard or proprietary audio compression algorithm." Reply at 11. But use of an audio codec is entirely different than a VoIP decoder that receives IP packets.

Audio codecs decode audio data in encoded format (compressed format). The input to an audio codec would be an encoded/compressed audio and not IP

packets. Because the claim requires decoding IP packets, audio codecs cannot be attributed the function of decoding IP packets as IP (internet protocol).

With regard to Knappe, a POSITA would understand use of a gateway as performing the functions of *merely converting* an analog signal to a digital signal, VOIP and other protocols. Exhibit 2001 (Dye Decl.) at ¶25. For example, Knappe discusses use of a traditional gateway: “The gateway 20 provides conversion between analog and/or digital formats. The standard analog telephones 18 communicate standard telephony signals through PSTN 22 to the gateway 20. At the gateway 20, the signals are converted to IP packets in the VoIP format.” Exhibit 1006 (Knappe) at 4:18-22. In other words, Knappe merely discusses use of a traditional gateway node for signal conversion. Thus, a POSITA would not be motivated to combine Drell and Knappe, and neither reference, alone or in combination, renders obvious the “voice over IP decoder” limitation.

G. The Prior Art Does Not Teach “Encoding “VoIP Encoder Configured to Compress Audio Data” Limitation (Claim 17)

Patent Owner incorporates by reference its arguments II.E and II.F, *supra*, regarding the “encoder” and “VoIP Decoder” limitations, herein. For the same reasons, Petitioners’ argument regarding this limitation fails.

H. The Prior Art Does Not Render Obvious the “Second Mixer” Limitation (Claim 17)

Patent Owner incorporates by reference its arguments from Section II.C

supra, regarding the “mixing” limitations, herein. The Patent Owner has previously explained how neither Drell nor Knappe disclose the “mixing” limitation. Again, this is in stark contrast to the ‘525 Patent’s teachings of *multiple* discrete mixers (e.g. “first mixer,” “second mixer,” (claim 17), “third mixer” (claim 18), *etc.*).

Moreover, Petitioners suggest the “moderator” as disclosed in the ‘525 Patent is a mere participant in the conference which is easily taught by Drell and Knappe. Reply at 13. Petitioners are incorrect. The ‘525 Patent explains how “mixing” is uniquely performed with regard to the moderator client: “The second mixer mixes the **moderator** audio-video data stream with the remote client audio-video data stream into a **second mixed data stream**. The second transport output configured to transmit a mixed audio data stream, corresponding to the second mixed data stream, to the [third] PSTN client.” Exhibit 1001 (‘525 Patent) at 3:54-59 (emphasis added).

In Drell, only a specific near-conference endpoint oversees tasks like audio mixing and video switching. Unlike Knappe, which distributes these tasks to the network, Drell’s design ensures simplicity and efficiency by concentrating all processing at the dedicated endpoint, *i.e.*, near conferencing endpoint. Integrating Knappe’s approach would sacrifice this simplicity, making the system more complex. Hence, Knappe lacks the motivation to be combined with Drell to satisfy the criteria delineated in claim 17.

I. The Prior Art Does Not Render Obvious the “Third Mixer” Limitation (Claim 18)

Patent Owner incorporates by reference its arguments from Section II.C *supra*, regarding the “mixing” limitations, herein. The Patent Owner has previously explained how neither Drell nor Knappe disclose the “mixing” limitation.² Again, this is in stark contrast to the ‘525 Patent’s teachings of *multiple* discrete mixers (e.g. “first mixer,” “second mixer,” (claim 17), “third mixer” (claim 18), *etc.*).

Moreover, Petitioner suggests that Drell somehow teaches multiple mixers given its reference to “separate processing trains.” Reply at 14-15. This is incorrect. “Processing trains” are **not** “mixers.” In fact, Drell distinguishes between the two: “the processing trains, together with the locally generated audio and video signals, are combined at an audio mixer.” Exhibit 1007 (Drell) at 2:34-36.

J. The Prior Art Does Not Render Obvious the “VPN Tunnel” Limitation (Claim 19-20)

Fundamentally, the Patents-in-Suit “teach systems and methods of achieving multi-participant, audio/video conferencing, over the Internet, using **secure connections** and multicasting.” Exhibit 2001 (Dye Decl.) at ¶6 (emphasis added). Specifically, dependent claims 19 and 20 of the ‘525 Patent teach a method of

² While the POR discussed why a POSITA would not be motivated to combine Knappe and Elliot in Section III.L of its Response, it also explained same for Knappe and Drell (e.g. III.B, III.C.) with regard to mixing.

transporting a mixed data stream across a VPN tunnel.³ Tunneling as construed by the district court means “a connection between two devices that permits encapsulating a first packet from one protocol in a second packet from a different protocol.” Exhibit 2002 at 15.

Wholly devoid from Petitioners’ prior art references is the concept of a VPN or VPN tunneling. Petitioners argue that “Elliott expressly discloses securing the transmission of audio data with VPN tunnels.” Reply at 12. That is incorrect. The sole mention of “VPN” in Elliott is passing reference that “Network 18 *could also comprise other IP-based networks as well as other networks....which can be either a public or a carrier supported virtual private network.*” Exhibit 1007 (Elliott) at 4:20-35 (emphasis added). It neither mentions nor teaches provisioning different types of mixed data over a VPN or VPN tunnel—just that a network *could* include an “intranet” or VPN.

Elliott teaches combining a traditional analog phone connection with an agent workstation. Exhibit 2001 (Dye Decl.) at ¶21. Neither of the two disparate

³ Petitioners are correct that the POR erroneously described the limitation at issue as “receiving first audio data, first video data and first collaboration data at a server from a first remote client through a first Virtual Private Network (VPN) tunnel” at p. 32 of the POR. The limitation for example in claim 19, recites “wherein the audio data received by the local moderator computer from the telephone through the PSTN is transported through a virtual private network (VPN) tunnel.” Despite the error in wording, the Patent Owner’s argument stands – the prior art does not teach transporting a mixed data stream across a VPN tunnel.

parts of the invention—a one-to-one POTS or PSTN phone connection—would suggest to a person of ordinary skill in the art that a VPN should or could be implemented to protect voice over the Elliott POTS phone connection or access to a publicly-available URL on the Web. Exhibit 2001 (Dye Decl.) at ¶¶ 21-22.

Moreover, unlike the Patents-in-Suit, Elliott does not disclose the concept of mixing audio or streaming mixed digital audio, video and collaboration data. Nor does Elliott teach a secure means of provisioning multimedia conferencing. Exhibit 2001 (Dye Decl.) at ¶11. This is important because claims 19 and 20 are directed towards transporting mixed data streams across a VPN tunnel.

Petitioners also rely on Dr. Houh's testimony that VPNs were well-known at the time. Reply at 17. However, a general understanding of VPN technology does not teach the concept of mixing audio or streaming mixed digital audio, video and collaboration data through a secure VPN tunnel between circuit-switched and packet-switched networks.

III. CONCLUSION

Patent Owner has shown that Petitioners' proposed grounds of unpatentability fail because they utilize combinations of references that do not disclose or suggest each and every limitation as recited by the '525 Patent claims. For at least the foregoing reasons, the Petition's grounds for unpatentability are legally deficient and claims 9-20 of the '525 Patent should be confirmed under 35

U.S.C. § 316.

Date: February 23, 2024

Respectfully submitted,

/s/ Andrew G. DiNovo

Andrew G. DiNovo

Reg. No. 40,115

DiNovo Price LLP

7000 North MoPac Expressway

Suite 350

Austin, TX 78731

Telephone: (512) 539-2625

Facsimile: (512) 727-6691

CERTIFICATE OF WORD COUNT UNDER 37 C.F.R. § 42.24(C)(4)

I, the undersigned, do hereby certify that the foregoing Patent Owner's Sur-Reply, including footnotes, contains 2,906 words, as measured by the Word Count function of Word 2007. This is less than the limit of 5,600 words as specified by 37 C.F.R. § 42.24(c)(4).

/s/ Andrew G. DiNovo
Andrew G. DiNovo

CERTIFICATE OF SERVICE

I hereby certify that on February 23, 2024, a true and correct copy of the foregoing PATENT OWNER MEETRIX IP, LLC'S SUR-REPLY was served by electronic mail upon the following counsel of record for Petitioners:

Hector J. Ribera
C.J. Alice Chuang
Carolyn Chang
Ryan J. Marton
Marton Ribera Schumann & Chang LLP
548 Market St., Suite 36117
San Francisco, CA 94104
hector@martonribera.com
cjalice@martonribera.com
carolyn@martonribera.com
ryan@martonribera.com

/s/ Andrew G. DiNovo

Andrew G. DiNovo
Reg. No. 40,115
DiNovo Price LLP
7000 North MoPac Expressway
Suite 350
Austin, Texas 78731