

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC,
Patent Owner.

Case IPR2024-00446
Patent 8,223,775

**PATENT OWNER'S OBJECTIONS TO PETITIONER'S
DEMONSTRATIVE EXHIBITS**

Patent Owner hereby submits its objections to Petitioner's demonstratives exhibits. The parties have met and conferred but could not resolve these objections.

Slide 48:

The PacketCable Infrastructure Exploits and Enhances DOCSIS Access Networks

- The '775 Patent and Rabenko similarly invoke **PacketCable** for implementing VoIP via DOCSIS, a **Specification intended to support IP-based voice over DOCSIS**

(Ex. 1001, '775 Patent, 2:15-19, 3:39-48; Ex. 1005, Rabenko, ¶ [0108]; Pet., Paper 2, pp. 3, 33; Reply, Paper 23, p. 3; Ex. 1018, Kiaei 2nd Decl., ¶ 12-13)

Since its inception the PacketCable initiative has been positioned as an IP-based Multimedia service deployment infrastructure, exploiting and enhancing the underlying QoS capabilities of the DOCSIS 1.1 access network. Based on market demand and technology readiness, VoIP was chosen as the first IP-based service to leverage these unique broadband access network capabilities, as the PacketCable 1.x suite of specifications simultaneously defines both a general QoS-based service delivery framework and a number of telephony-specific functional elements and mechanisms.

(Ex. 1025, PacketCable Specification, p. 2; see also Reply, Paper, 23, p. 3; Ex. 1018, Kiaei 2nd Decl., ¶ 12)

Service Flow management is performed through MAC-layer DOCSIS Dynamic Service Add/Change/Delete (DSA/DSC/DSD) messaging, which may be initiated either by the CM or by the CMTS.

(Ex. 1025, PacketCable Specification, p. 8; see also Reply, Paper, 23, p. 3; Ex. 1018, Kiaei 2nd Decl., ¶ 12)

Key features of the described Multimedia service delivery framework include:

- Simple, powerful access to DOCSIS[®] 1.1 QoS mechanisms supporting both time and volume-based network resource authorizations

(Ex. 1025, PacketCable Specification, p. 1; see also Reply, Paper, 23, p. 3; Ex. 1018, Kiaei 2nd Decl., ¶ 12)



Uncited Evidence: Slide 48 quotes new evidence (Ex. 1025, 8) which is not present in briefing (see Reply, 3).

Slide 49:

The PacketCable Infrastructure Exploits and Enhances DOCSIS Access Networks

- Similarly, the PacketCable Technical Report states:

PacketCable Multimedia provides access to the full set of CMTS upstream scheduling algorithms as defined in DOCSIS 1.1.

(Ex. 1026, PacketCable Technical Report, p. 13; Ex. 1018, Kiaei 2nd Decl., ¶ 12)

The primary focus of PacketCable 1.x is residential telephony services. As a part of this effort, the Dynamic Quality of Service (DQoS) specification was developed, defining the mechanisms necessary to deliver QoS on the DOCSIS-based access portion of the IP network.

(Ex. 1026, PacketCable Technical Report, p. 34; Ex. 1018, Kiaei 2nd Decl., ¶ 12)

- So, when VoIP is implemented in a DOCSIS network, for example, via PacketCable and as taught by Rabenko, it includes DOCSIS operations.

(Ex. 1001, '775 Patent, 1:20-25; Reply, Paper 23, pp. 2-3; Ex. 1018, Kiaei 2nd Decl., ¶ 9, 12-15)

Uncited Evidence: Slide 48 quotes new evidence (Ex. 1026, 13, 34) which is not present in briefing (see Reply, 2-3).

Slide 55:

Patent Owner's Expert Concedes that DOCSIS Uses Digital Packets Whereas POTS Signals are Analog

- DOCSIS is a **digital IP packet-based** network protocol

(Ex. 1005, Rabenko, ¶¶ [0034], [0044]-[0047], [0083]; *see also* Reply, Paper 23, pp. 6-7; Ex. 1018, Kiaei 2nd Decl., ¶¶ 22-24)

- Dr. Russ testifies:

- Q: "IP packets transmitted, for example, in a DOCSIS network are digital; is that correct?"
- A: "Yes."

(Ex. 1021, Russ Dep., 48:14-18)

- POTS signals are not packet-based, POTS signals are **analog**

(Ex. 1005, Rabenko, ¶¶ [0034], [0045]-[0047]; Ex. 2008, Russ 2nd Decl., ¶ 53; Ex. 1021, Russ Dep., 49:11-17, 52:14-20, 53:8-13; Ex. 1002, Kiaei 1st Decl., ¶ 113; Ex. 1018, Kiaei 2nd Decl., ¶¶ 21-24; Ex. 2009, Kiaei 1st Dep., 64:16-25, 65:1-22, 82:11-23; 24; Dep. Paper 23, p. 22; DOR, Paper 10, pp. 16-17; Reply, Paper 23, pp. 6-7)

- Dr. Russ testifies:

- Q: "Isn't it true, Dr. Russ, that traditional POTS signals—that's plain old telephone signals—are analog?"
- A: "Yes. Yes. The interface over a POTS connection is analog. For example, voice is analog."

(Ex. 1021, Russ Dep., 49:11-17)



Petitioner's Demonstrative Exhibit - Not Evidence

55

Uncited Evidence: Slide 55 quotes new evidence (Ex. 1021, 48:14-18, 49:11-17) which is not present in briefing (*see* Reply, 6-7).

Slide 56:

Patent Owner's Expert Concedes that DOCSIS Uses Digital Packets Whereas POTS Signals are Analog

- Dr. Russ concedes that analog POTS signals are not packetized/depacketized, as described in Rabenko
- Dr. Russ testifies:
 - Q: “The analog signal can be compressed and decompressed in its analog form?”
 - A: “In the context of POTS, it could be converted to digital and compressed, for example; and then on the other end, decompressed and converted back to analog.”
 - Q: “[I]n the context of POTS, isn't it true that the analog waveform itself is not packetized and depacketized?”
 - A: “I believe that's correct, yes.”

(Ex. 1018, Kiaei 2nd Decl., ¶¶ 22-24; Ex. 1021, Russ 2nd Depo., 52:14-20, 53:8-13; Reply, Paper 23, p. 7)

(Ex. 1018, Kiaei 2nd Decl., ¶¶ 22-24; Ex. 1021, Russ 2nd Depo., 52:14-20, 53:8-13; Reply, Paper 23, p. 7)



Petitioner's Demonstrative Exhibit
Not Evidence

56

Uncited Evidence: Slide 56 discusses and quotes new evidence (Ex. 1021, 52:14-20, 53:8-13) that is not cited in any briefing (*see* Reply, 7).

Slide 73:

Federal Circuit has Rejected Rigid and Siloed Obviousness Analysis

- “A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007)
- Obvious analysis is an “expansive and flexible approach” and “a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 415, 418.
- Obviousness analysis requires “considering the prior art in context or in combination,” and “le[aves] room for consideration of how background knowledge in the art would have impacted a POSA’s understanding of, or motivation to modify, the [r]eferences at issue.” *Janssen Pharms., Inc. v. Teva Pharms. USA, Inc.*, 97 F.4th 915, 928 (Fed. Cir. 2024)



Petitioner's Demonstrative Exhibit - Not Evidence

73

New Argument And Uncited Cases: Slide 73 quotes cases not cited in any briefing (*KSR* and *Janssen*) to argue for the first time that “Federal Circuit has Rejected Rigid and Siloed Obviousness Analysis.”

Respectfully submitted,

/ Kenneth J. Weatherwax /

Kenneth J. Weatherwax (Reg. No. 54,528)

Nathan Lowenstein, *pro hac vice*

Colette Woo, *pro hac vice*

LOWENSTEIN & WEATHERWAX LLP

Date: May 30, 2025

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the following documents were served by electronic service, by agreement between the parties, on the date signed below:

PATENT OWNER'S OBJECTIONS TO PETITIONER'S DEMONSTRATIVE EXHIBITS

The names and address of the parties being served are as follows:

Frederic M. Meeker	fmeeker@bannerwitcoff.com
Paul T. Qualey	pqualey@bannerwitcoff.com
John Fleming	jffleming@bannerwitcoff.com
Shambhavi Patel	spatel@bannerwitcoff.com
Simon C. Lasker	slasker@bannerwitcoff.com
	ComcastIPRService@bannerwitcoff.com

Respectfully submitted,

/ Keith Moore /

Date: May 30, 2025