

UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT TRIAL AND APPEAL BOARD

MOTOROLA SOLUTIONS, INC.,
Petitioner,

v.

STA GROUP LLC,
Patent Owner.

Case IPR2023-01294
U.S. Patent No. 8,831,664

PATENT OWNER'S RESPONSE

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Exhibit No.	Exhibit Name
2001	Shaffer et al. (WO2007/021586) (“Shaffer”)
2002	Biltz et al. (US 2008/0037461) (“Biltz”)
2003	December 2023 DocketNavigator Time to Trial Statistics in Patent Cases in the United States District Court for the Eastern District of Texas
2004	<i>STA Group LLC v. Motorola Solutions, Inc.</i> , Case No. 2:22-cv-00381 (E.D. Tex.), Dkt No. 360
2005	Declaration of Shmuel Shaffer, Ph.D.
2006	Deposition Transcript of David Williams, Ph.D. dated June 12, 2024
2007	Resume of Shmuel Shaffer, Ph.D.

I. INTRODUCTION

Patent Owner, STA Group LLC (“Patent Owner”), submits this Patent Owner Response (“Response”) pursuant to 37 C.F.R. § 42.120 to the *Inter Partes* Review petition (“Petition”) filed by Motorola Solutions, Inc. (“Petitioner”) for claims 1 to 20 (the “Challenged Claims”) of U.S. Patent 8,831,664 (“the ’664 Patent”), as detailed below:

Ground	Basis for Challenge
1	Claims 1-6, 8-9, and 11-20 are obvious over Downs in view of EDACS
2	Claims 1-6, 8-9, and 11-20 are obvious over Ground 1 in further view of Childress
3	Claims 3-5, 13-14, 18, 19 are obvious over Ground 1 in further view of Hancock
4	Claims 3-5, 13-14, 18, 19 are obvious over Ground 2 in further view of Hancock
5	Claims 7, 10 are obvious over Ground 1 in further view of Reich
6	Claims 7, 10 are obvious over Ground 2 in further view of Reich
7	Claims 1-2, 6-9, 11-12, 15-17, 20 are obvious over Kim
8	Claims 3-5, 13-14, 18-19 are obvious over Ground 7 in view of Ishibashi
9	Claim 10 is obvious over Ground 7 in view of Goss

The '664 Patent discloses and claims a novel communication system that dynamically controls how media streams are provisioned to endpoints over communication channels in response to identifying alerts within the media streams. Ex. 1001, Abstract, 3:56-6:9. This channel-based system includes an intelligent response mechanism that identifies an alert in a media stream that is provided over a communication channel. *Id.*, 3:56-4:9. The communication system ***makes an adjustment to*** how a media stream is provisioned on a communication channel to endpoint devices. *Id.*, 3:56-4:9, 4:25-34, cl. 1.¹ For example, the communication system can shift the media streams or determine the volume at which the media streams propagate over a channel to endpoint devices. *Id.*, 5:22-30. Unlike conventional communication systems, the '664 Patent's dynamic adjustment to media streams ensures that alerts receive an elevated priority. *Id.*, 3:56-65. Such reliability and alert promotion are crucial in emergency situations. *Id.*, 7:49-59, 3:46-55.

The Petition proposes three main theories of unpatentability. Each fail.

¹ This Response designates “emphasis added” via a combination of bold and italics. All emphasis herein is added unless stated otherwise.

First, in Ground 1, the Petition relies on two different channels from *EDACS*² to arrive at “receiving an alert in one of the media streams,” as recited by independent claims 1, 11, and 16. The claim term “media stream[s]” has been construed by the district court to mean “audio or video or both, which may include associated data.” *EDACS* provides an alert as data on a control channel and then voice and/or audio are transmitted over a separate working channel. In other words, the alleged alert is provided in data communicated over a non-media stream over a control channel and the media stream is communicated over a distinct working channel. Accordingly, *EDACS* does not disclose “receiving an alert in one of the media streams,” because *EDACS* discloses that alerts are transmitted over a separate control channel that does not include audio and/or video.

Additionally, Ground 1 fails because *Downs*³ and *EDACS* do not disclose “elevating a priority associated with a media stream in which an alert is received by making an adjustment to how the media stream is provisioned to an endpoint,” as recited in claim 1. *EDACS* creates a separate working channel that is different from

² *A System and Standards Definition for a Digital Land Mobile Radio System*, TSB69, TIA/EIA Telecommunications Systems Bulletin (Nov. 1998) (“*EDACS*”) (Ex. 1005).

³ U.S. Patent No. 5,754,960 to Downs et al. (“*Downs*”) (Ex. 1004).

a control channel through which an alert is received. *Downs* merely adjusts ***endpoint settings*** rather than making an adjustment to how the media stream is provisioned ***to an endpoint***.

Second, in Ground 2, the Petition attempts to cure the deficiencies of *Downs* and *EDACS* with the addition of *Childress*. However, the system disclosed by *Childress* is not materially different from *EDACS*. Accordingly, claims 1-6, 8, 9, and 11-20 are not obvious over *Downs* in view of *EDACS* and *Childress*.

Third, in Ground 7, the Petition relies on *Kim*.⁴ *Kim* discloses a television that displays alerts received in broadcast signals. *Kim* does not elevate a priority associated with a media stream in which an alert is received, nor does it make an adjustment to how the media stream is subsequently provisioned to an endpoint. *Kim* instead is an endpoint that ***reacts*** to broadcast television signals it receives by adjusting its endpoint settings. Accordingly, claims 1-2, 6-9, 11-12, 15-17, and 20 are not obvious over *Kim*.

II. THE '664 PATENT

A. Summary of the '664 Patent

Emergency response personnel often use push-to-talk ("PTT") mobile radios to communicate over a network, which supports a plurality of channels. Ex. 1001,

⁴ Int'l Pub. No. WO 2004/034350 to Kim ("*Kim*") (Ex. 1008).

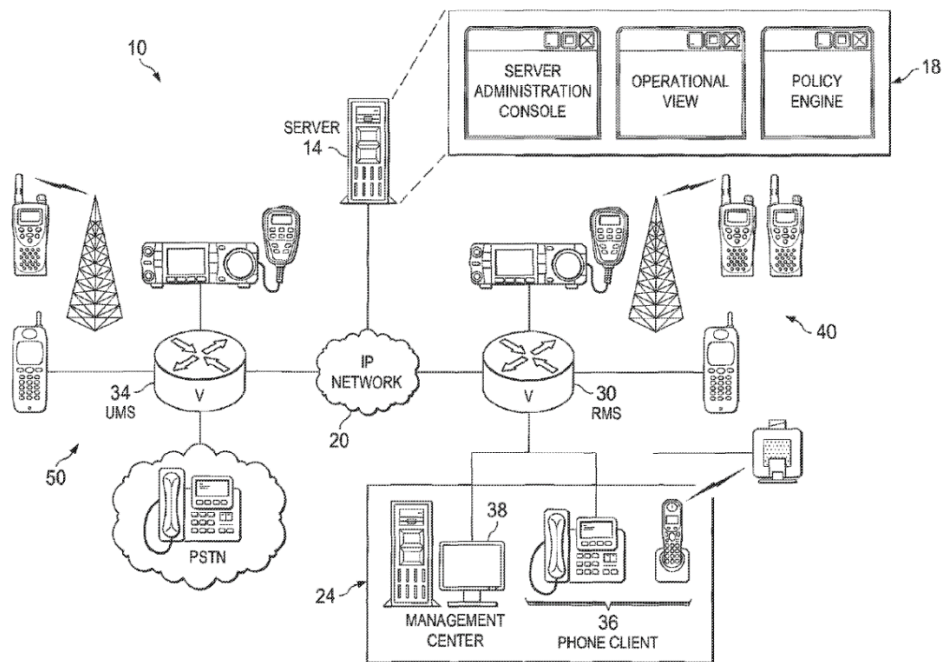
1:25-46; 3:15-29. In conventional networks, these channels are statically configured, and thus end-users can manually adjust the volume of each channel. *Id.*, 1:33-41. However, with static channels, the communication network cannot optimally coordinate the channels, leading to significant issues when, for example, important information or alerts are transmitted. *Id.*, 1:33-46. Further, this static configuration may prevent intended recipients from receiving higher priority messages. *Id.*

In an illustrative example of prior, known communication systems, an officer carries a PTT mobile radio that supports two channels—a UHF channel and a VHF channel. *Id.*, 3:30-45. The UHF channel provides dispatcher communications while the VHF provides passive communications related to routine activities. *Id.* Because dispatcher communications may have higher priority than routine activities, the officer may turn up the volume of the UHF channel and turn down the volume of the VHF channel. *Id.* As a result of changing the volumes of each channel, the officer may miss critical information (*e.g.*, an officer has been shot and needs assistance) that is broadcasted over the VHF channel when using prior, known communication systems. *Id.*, 3:46-55; Ex. 2005, ¶¶23-25.

The '664 Patent's novel communication system solves at least the above-discussed issue. Ex. 2005, ¶26. Particularly, the communication system of the '664 Patent monitors and identifies alerts in media streams of communication channels

that otherwise may be missed. Ex. 1001, 3:56-65. In response to such identification, the system dynamically manages the media streams that are provided over the communication channels. *Id.*, 3:56-4:9. In operation, when alerts are received from a PTT mobile radio, the system makes an adjustment to how the media stream is provisioned to downstream endpoints. Ex. 2005, ¶26. The adjustment to how the media stream is provisioned includes elevating a priority associated with the media stream. Ex. 1001, 3:56-4:9. The elevation in priority of the media stream accordingly “ensure[s] that the message was properly received.” *Id.*, 3:56-59; Ex. 2005, ¶26.

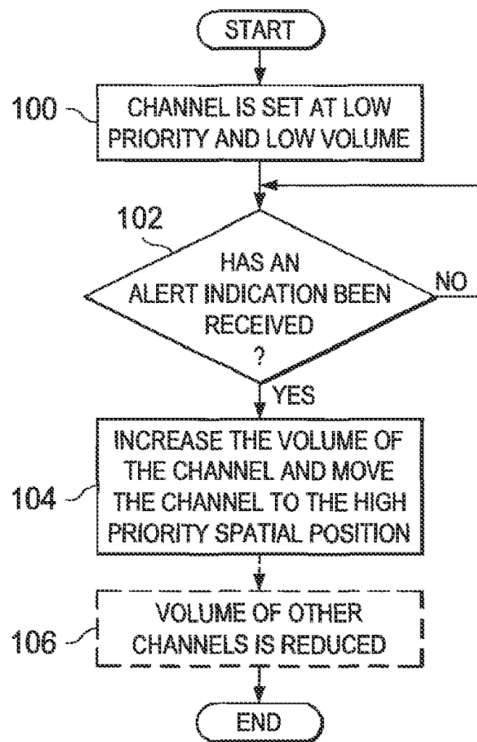
Figure 1 depicts a simplified block diagram for monitoring media streams in a communication system 10. Ex. 1001, 2:33-34. The communication system 10 includes an IP network 20, which is coupled to a router media service (“RMS”) 30 and a universal media service (“UMS”) 34. *Id.*, 2:37-40. The communication network 10 also includes a management center 38 and end-user devices 40, 50 (e.g., endpoints). *Id.*, 2:40-44, 47-50. The UMS “has the intelligence to understand which streams should be given priority over other streams.” *Id.*, 5:26-28. Thus, the UMS is configured to shift the media streams or determine at what volume the media stream should propagate to end user PTT mobile radios (e.g., endpoints). *Id.*, 5:28-30.



Ex. 1001, Fig. 1.

The UMS may include a mixer to “control the relative volume of each media stream.” *Id.*, 5:36-40. In an example, the UMS receives two media streams per user. *Id.*, 5:41-45. These media streams originate from end-user devices and are routed from the UMS to the management center. *Id.* When the mixing takes place at the UMS, “the provisioning is being done externally, and the individual endpoints do not have to be capable of managing these alert[s].” *Id.*, 5:50-52. Likewise, when the management center performs mixing functions and manages the media streams, “each channel is receiving the stream at a prescribed volume.” *Id.*, 5:53-64; Ex. 2005, ¶¶27-29.

Figure 5 illustrates a process of the communication system dynamically making an adjustment to a media stream in response to an alert indication. Ex. 1001, 7:60-8:14; Ex. 2005, ¶¶30-32. At step 100, a channel of an end-user device is set at a low priority and low volume. *Id.*, 7:61-63. At step 102, the communication system identifies whether an alert indication has been received in a media stream from the end-user device. *Id.*, 7:66-67. When an alert is received in a media stream, the communication system increases the volume of the channel or moves the channel to a high priority spatial position. *Id.*, 8:1-5 (step 104). Of particular note, the ***adjustment is made to the media stream itself and not to endpoint settings*** because the management center of the '664 Patent only has control of the media stream. Ex. 2005, ¶¶26, 29. Increasing the volume of the channel or moving the channel to the high priority elevates a priority associated with the media stream through which the alert was received. Ex 1001, 5:36-40, 5:63-64. Additionally, the communication system may reduce the volume of the media streams on the other channels. *Id.*, 8:6-7 (step 106); Ex. 2005, ¶¶30-31.



Ex. 1001, Fig. 5.

B. Claim Construction

The Petition was filed after November 13, 2018. *See, e.g.,* Petition, 94. As such, the proper claim construction standard to be applied is articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*), in accordance with its regulation, 37 C.F.R. § 42.100(b). *Apple Inc. v. Firstface Co.*, No. 2021-1001, 2021 WL 4156323, at *1, n.1 (Fed. Cir. Sept. 13, 2021). The terms of the Challenged Claims, except as noted below, should be “given their ordinary and customary meaning[:] ... the meaning that the term would have to a [POSITA] in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1312-13 (quotation omitted).

On June 3, 2024, the district court in related litigation (“Parallel Proceedings”) issued a claim construction order based in part on an updated agreement by the parties. In the Parallel Proceeding, the parties agreed on certain constructions:

Term	Agreed Construction
Order of Steps (Claim 1)	The steps “must be performed in the recited order.” This means “monitoring media streams associated with channels in a communication environment” is performed before “receiving an alert in one of the media streams”. Also, “elevating a priority associated with the media stream receiving the alert, such that an adjustment is made to how the media stream is provisioned to an endpoint in the communication environment” is performed last.
“endpoint” (Claim 1)	The “end-user device”

Ex. 2004, 16.

The Eastern District of Texas further construed certain claims as follows:

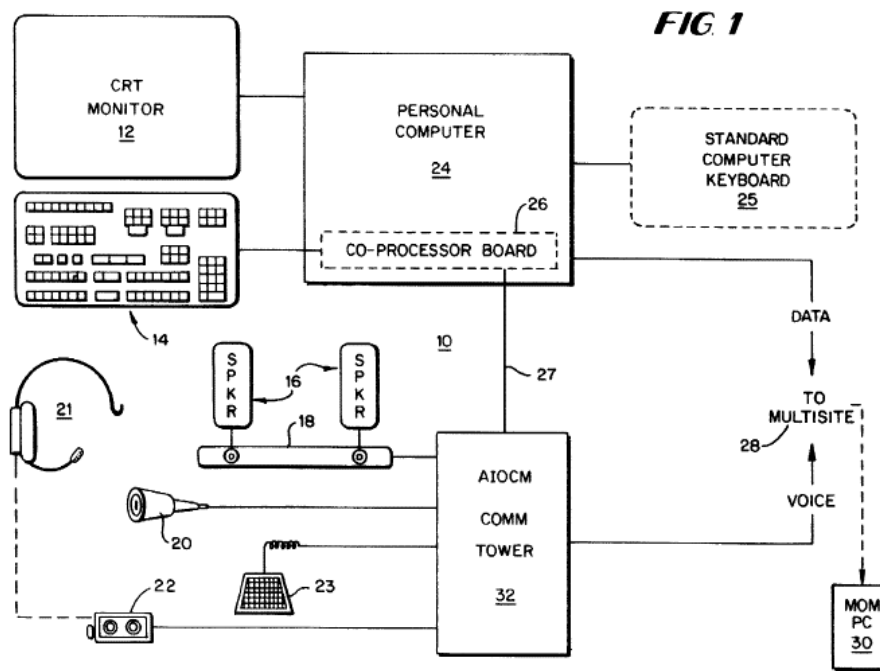
Term	E.D. Tex. Construction
“media stream” (Claim 1)	“audio or video or both, which may include associated data”

Ex. 2004, 42.

III. OVERVIEW OF THE ASSERTED PRIOR ART REFERENCES

A. U.S. Patent No. 5,754,960 (“*Downs*”)

U.S. Patent No. 5,754,960 (“*Downs*”) is titled “Display Console and User Interface for Multisite RF Trunked System.” Ex. 1004, Cover. *Downs* was filed Feb. 14, 1992, and issued May 19, 1998. *Id.* *Downs* is directed to a dispatcher console used in a trunked radio system. *Id.*, Abstract. *Downs* discloses a customized keyboard that allows a dispatcher to quickly set radio controls for trunked multisite systems. *Id.*, 3:4-9. The described system and keyboard are exemplified in Figure 1:

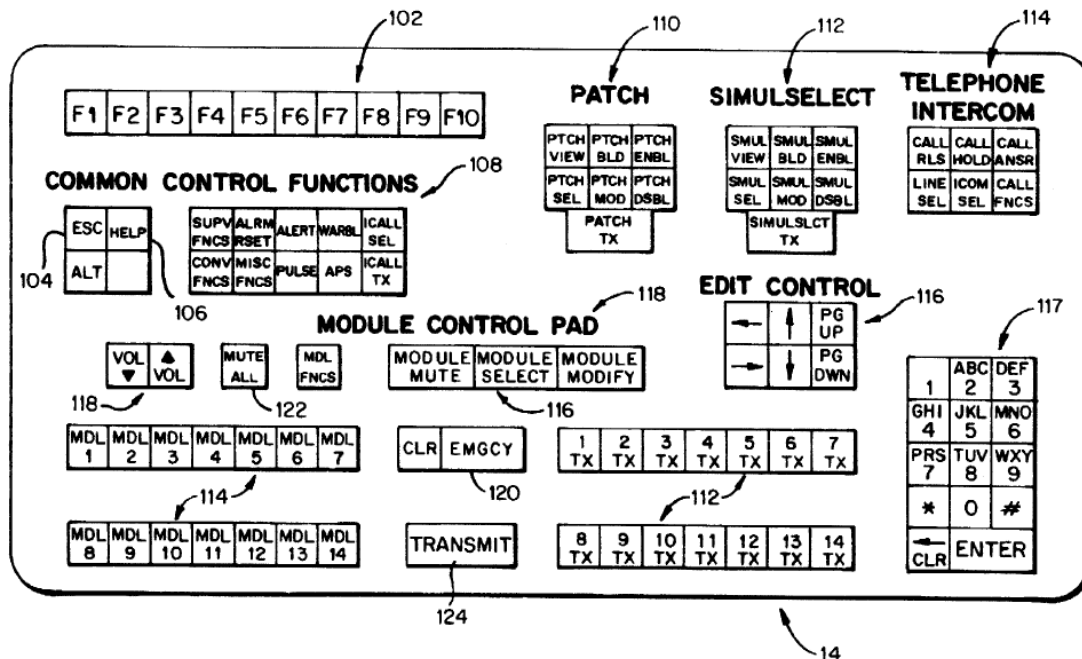


Ex. 1004, Fig. 1.

Downs discloses a computer console that operates with the customized keyboard providing radio call information. *Id.*, 3:4-33. For instance, *Downs* discloses that the computer console allows individual dispatchers to set up profiles. *Id.*, 4:31-36, 5:14-22. These profiles are set up in such a way to allow each volume setting, delay time, and other features of the logical id to be transferred into a start of shift for the dispatcher. *Id.*, 6:47-53. Other aspects that are arrayed in the specific dispatcher profile include the changing of colors and alignment of specific interactive software on the screen. *Id.* 6:30-46.

The display screen allows a dispatcher to see specific colors associated with call statuses shown as red for emergencies and green for selected calls. *Id.*, 6:40-44.

These display colors are associated *after* the dispatcher receives the calls and manually presses an emergency condition key (120). *Id.*, 8:29-35 (noting that the common functions of the customized keyboard are assigned by the dispatcher as “dedicated keys” and includes “emergency condition”); Ex. 2005, ¶¶48-59. Figure 6 depicts the customized keyboard used by the dispatcher to achieve the configurations on the screens. Ex. 2005, ¶56.



Ex. 1004, Fig. 6 (displaying the “emergency condition” keys as keys 120).

Once the appropriate communication module is picked, the dispatcher chooses the appropriate action by depressing the appropriate key, thereby signaling that the dispatcher—an end user—incorporates their own thinking in determining allocations of emergencies. *Id.*, 8:40-47. In this regard, the dispatcher manually

determines the volume level of the channel output. *Id.* At most, *Downs* discloses what occurs after the originating streams reach the endpoint and how a dispatcher manually configures the endpoint in response to the originating streams. *See id.*, 11:25-38. Ex. 2005, ¶¶55-59.

Downs focuses on what an endpoint may do with the incoming calls and provides ease-of-access for an endpoint moderator. *Id.*, ¶59.

B. Telecommunications Industry Association System Standard (“EDACS”)

The Telecommunications Industry Association (TIA) published a standard titled “A system and Standards Definition for a Digital Land Mobile Radio System, TSB69.” Ex. 1005, 1. *EDACS* is a standard set by the TIA for describing enhanced digital access communication systems and setting specifications for such systems. *Id.*, 3; Ex. 2005, ¶¶60-72. *EDACS* teaches how multiple PTT mobile radios in a communication system interact. Ex. 1005, 13-14. The described interaction is exemplified in Figure 2:

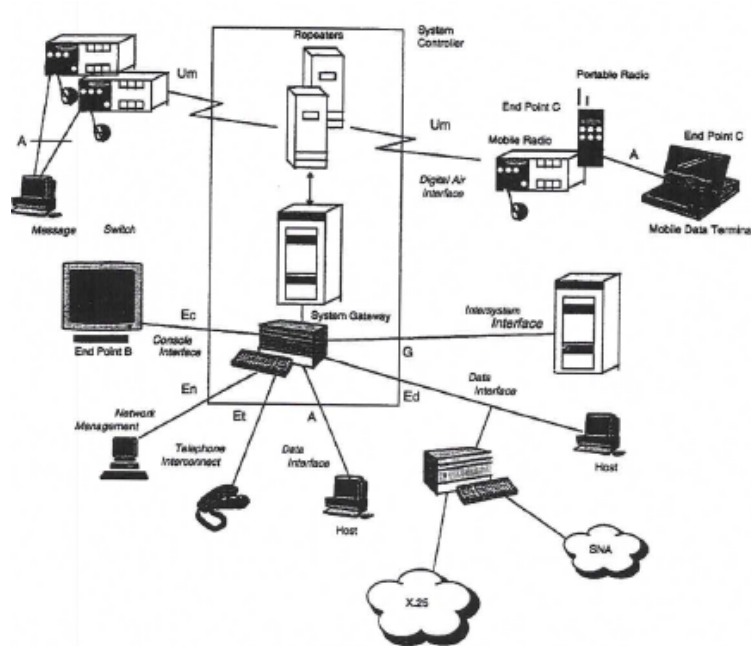
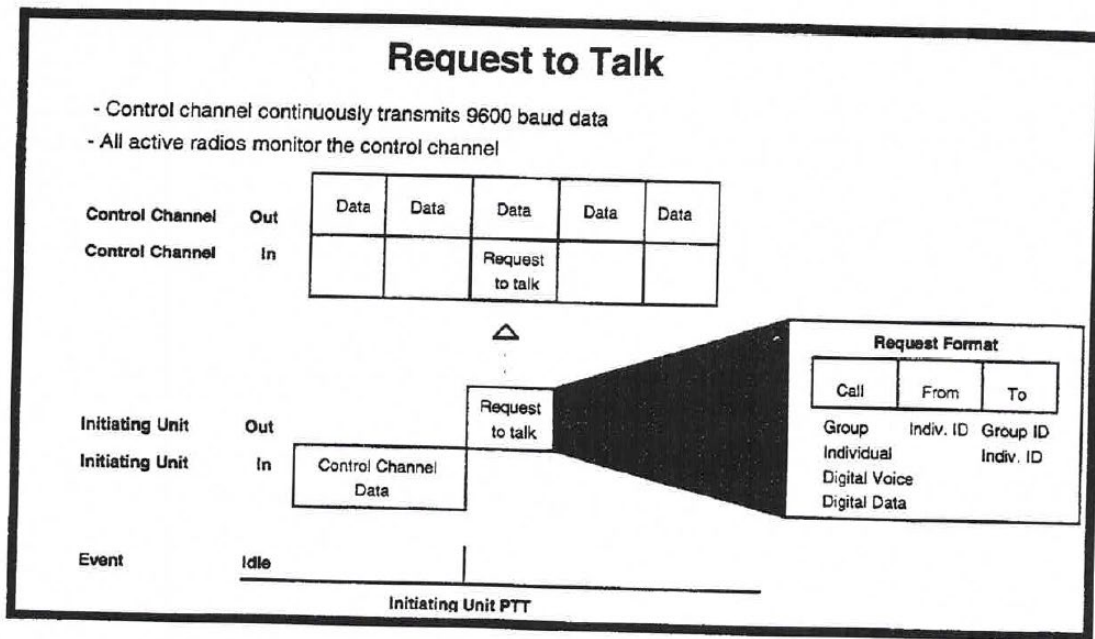


Figure 2. General System Model

Ex. 1005, 14, Fig. 2.

EDACS discloses the use of “working channels” and “control channels”. *EDACS* defines a working channel as a channel over which PTT mobile radios communicate. *Id.*, 57. *EDACS* specifies that working channels provide for, in part, analog voice, digital voice, and digital data. *Id.*

EDACS defines a control channel as a channel in which “system control information is continually transmitted and channel request/status information is received.” *Id.*, 42. Figure 9 from *EDACS* is disclosed below and shows the transmission of channel request/status information over control channels. *EDACS* is silent about the control channel transmitting audio or video. Ex. 2005, ¶¶63, 71.



Ex. 1005, 62, Fig. 9.

EDACS describes how a trunked radio system may operate with control and working channels to provide group calls and individual calls. *Id.*, 13-14, 17-18. To begin, a radio scans for a control channel in an area to establish a connection with the system. *Id.*, 23. The control channel for a given area constantly transmits a control signal at a specified frequency that the radios can identify. *Id.*; Ex. 2005, ¶63. The radios synchronize to the control channel signal, which allows admittance to the system for inbound signaling. Ex. 1005, 23; Ex. 2005, ¶¶63, 65-72.

EDACS specifies that the call system transmission deliveries occur through either message trunking or transmission trunking. Ex. 1005, 25. Transmission trunking means that a working channel is assigned during a caller's transmission when a PTT button on a mobile radio is depressed. *Id.* The system deallocates the

working channel when the originator ends the transmission by releasing the PTT button. *Id.* This allows for minimal, or near-zero, hang times for allocating working channels to new call requests. *Id.*; *see also* 36. Message trunking means that a working channel is assigned for the duration of the call and is not deallocated after the PTT button is released. *Id.*, 25; *see also* 37.

Figs. 8 and 9 in *EDACS* describe the way call sequences are performed generally in its message trunked systems. *Id.*, Figs. 8 and 9, 61-66 (outlining the process for channel requests, assignment of working channels, transmitting and receiving information on the working channel, and call termination) (reproduced below). Ex. 2005, ¶¶65-72.

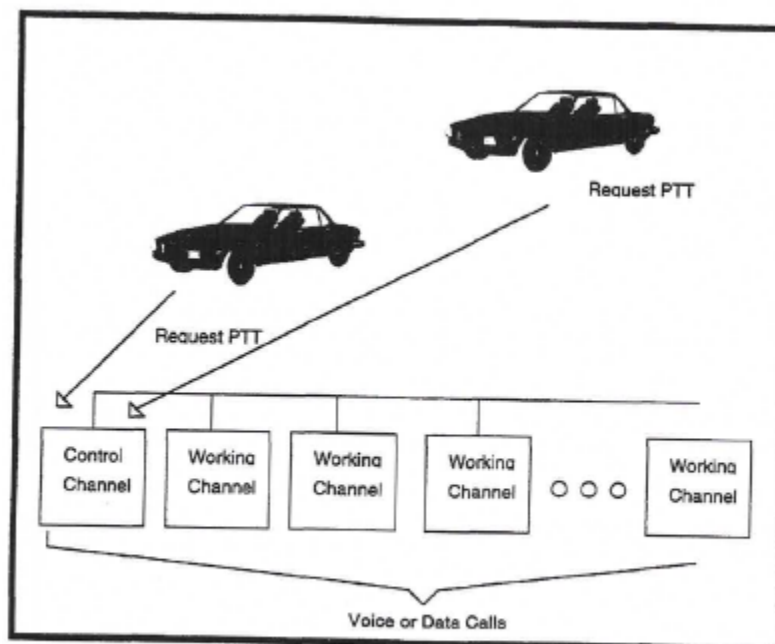


Figure 8. Request PTT

Ex. 1005, Fig. 8.

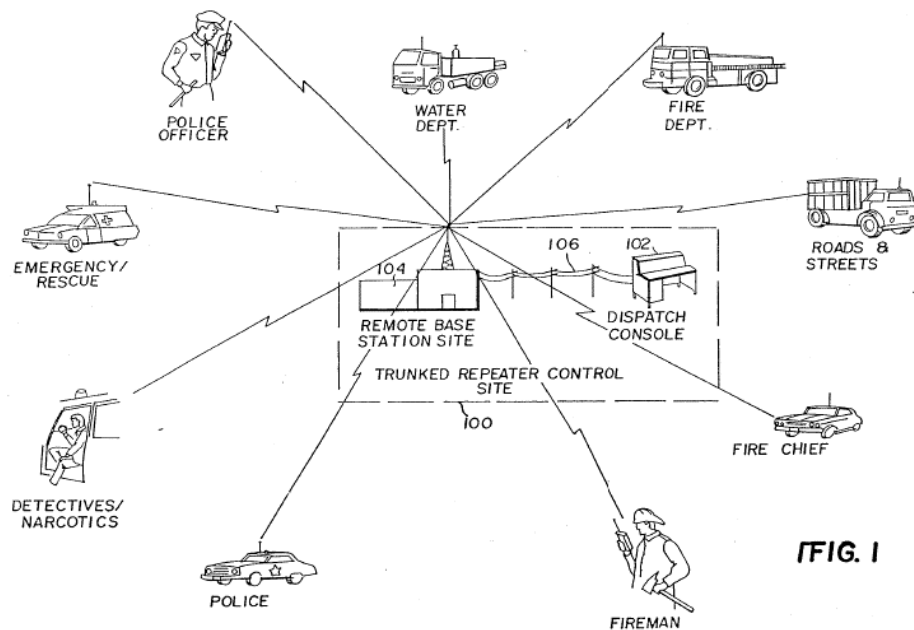
Call requests begin on an inbound control channel and inform the system of the individual ID, call type, and the nature of the call as to an individual or group. *Id.*, 61. The control channel receives all such messages from requesting mobile radios. *Id.*, 61; Ex 2005, ¶¶65-66. Channel assignment occurs directly after this request to allot the request to a separate open working channel. Ex. 1005, 62; Ex. 2005, ¶66. The mobile radios are then able to communicate with each-other on the assigned working channel. Ex. 1005, 64. Once finished, the call originator releases the PTT button, which sends an un-key message to the working channel. *Id.*, 65. This causes all of the mobile radios to then return to the control channel. *Id.*; Ex. 2005, ¶68.

EDACS discloses that the emergency calls are designated as “emergency group calls.” Ex. 1005, 25. The “emergency group call” is initiated with an “Emergency” condition message that is initiated by the “caller” and transmitted by the mobile radio *on the control channel*. *Id.*, 51; Ex. 2005, ¶70. *EDACS*’ system receives the emergency request and *assigns a call associated with the request to a free working channel*. Ex. 1005, 25; Ex. 2005, ¶70. If all working channels are busy, then the emergency request is placed in the “top of the queue.” Ex. 1005, 25. For the duration of the emergency call, the assigned working channel is dedicated to the individual emergency through message trunking until the dispatcher clears the

group from the emergency status. *Id.*, 25. Once the emergency call is completed, the working channel is placed back in the pool for open channels. *Id.*

C. Overview of U.S. Patent No. 4,905,302 (“*Childress*”)

U.S. Patent No. 4,905,302 (“*Childress*”) is titled “TRUNKED RADIO REPEATER SYSTEM.” Ex. 1031, Cover. *Childress* was filed Jun. 3, 1987, and issued Feb. 27, 1990. *Id.* *Childress* is directed to a system using dual channels to achieve digital channel requests on separate channels from working channels. *Id.*, Abstract. *Childress* discloses a system that allows communications between mobile end units and a trunked repeater control site. *Id.*, 11:8-21. The disclosed system is exemplified in Figure 1 reproduced below:



Ex. 1031, Fig. 1.

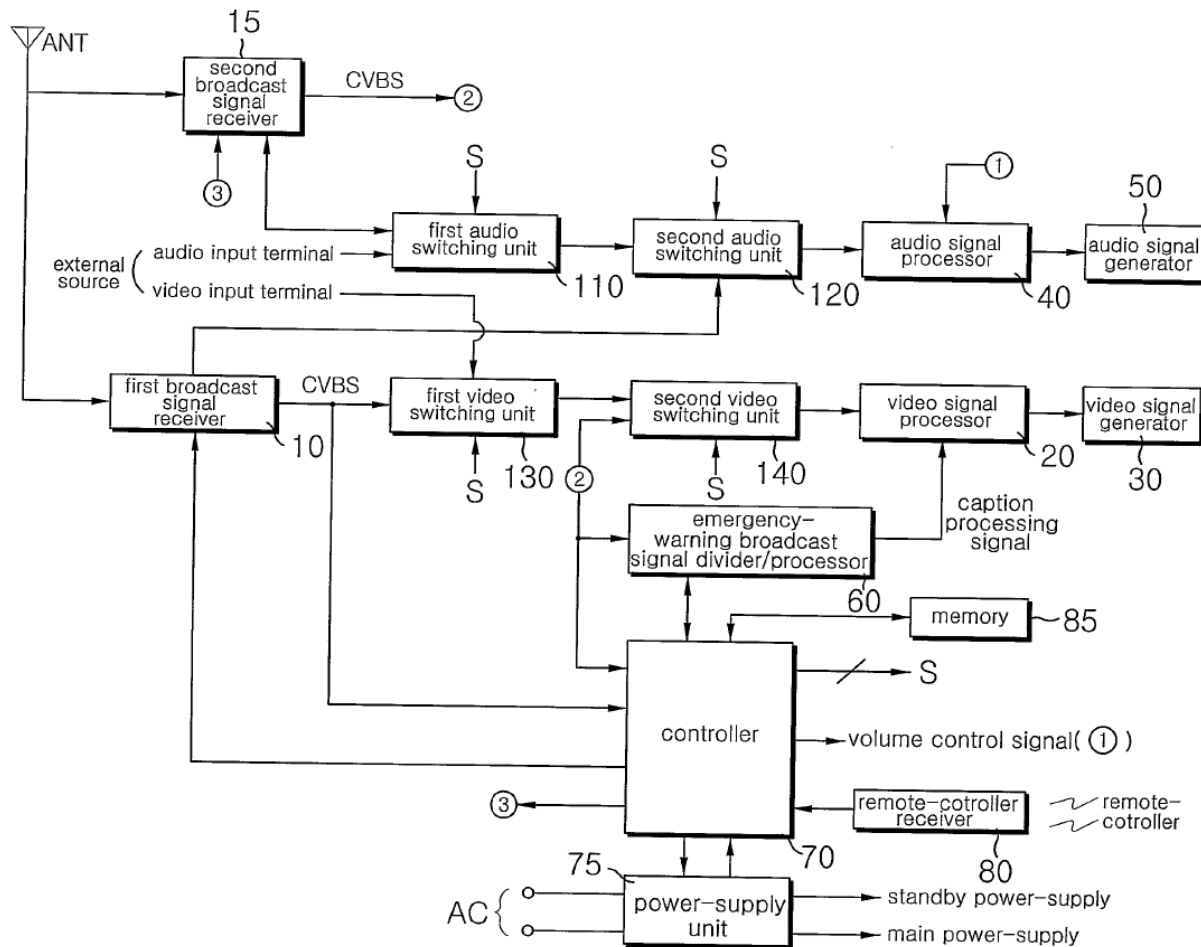
Childress discloses a system that uses both message trunking and transmission trunking. Ex. 1031, Abstract. The disclosure specifies that messages and alerts are received on the **control channel** for a call. *Id.*, 3:43-49; Ex. 2005, ¶¶74-78. After the call message is received, the system then assigns the call to a **working channel**, which then enables for bi-directional communication to occur between the mobile end units. Ex. 1031, 3:43-53.

In *Childress*, emergency requests begin as request signals sent on the control channel to the dispatcher. *Id.*, 13:16-18; Ex. 2005, ¶78. These requests are received by the dispatcher and the central controller then sends an automatic assignment to the requester. Ex. 1031, 13:18-23. This automatic assignment informs the requester radio of the assignment channel. *Id.* Once the emergency call is completed, the working channel is dropped and returns to the pool of working channels. *Id.*, 15:1-6.

D. International Publication No. WO 2004/034350 (“*Kim*”)

Kim discloses a television capable of displaying emergency-warning broadcast information. Ex. 1008, 1:3-6. Notably, the television channels of *Kim* are static—this static configuration is exactly what the ’664 Patent identifies as being in the conventional systems and is what the ’664 Patent is intended to improve upon. Ex. 2005, ¶¶79-84, 150-151; *see* Ex. 1001, 1:33-41 (describing the issues of static

channel configurations in conventional systems). Figure 6 depicts an example system from *Kim*. Ex. 1008, 24:7-8.



Ex. 1008, Fig. 6.

The broadcast data receiver 200 includes a tuner and an IF processor. *Id.*, 24:13-14. *Kim*'s system further includes a channel processor 210, which decodes the baseband data created by the IF processor. *Id.*, 24:22-25:2; Ex. 2005, ¶¶81-84. The TS decoder 220 separates audio data, video data, and additional data from the

signal reproduced by the channel processor 210. Ex. 1008, 25:3-10. Each data type has separate outputs. *Id.*

The audio data is applied to the MPEG-2 audio decoder 260, which sends the decoded audio data to the amplifier 270. *Id.*, 25:6-10. The “amplifier 270 amplifies the level of the decoded audio data, and outputs the amplified audio signal.” *Id.*, 8-10. The video data is applied to the MPEG-2 video decoder 230, which send the decoded video data to the on-screen Graphic mixer. *Id.*, 25:11-14. The decoded data is processed and displayed on the video output unit 250. *Id.*, 25:14-19.

The auxiliary data, which indicates emergency-warning broadcast control information codes, is applied to the controller 280, which controls the television. *Id.*, 25:20-26:6. For example, when emergency-warning broadcast start information is detected from the decoded emergency-warning broadcast control information, the controller 280 powers on and controls the television display “the prescribed emergency-warning broadcast channel.” *Id.*, 26:6-14.

In additional detail, the TS decoder detects an emergency-warning broadcast start code. *Id.*, 26:18-23. The controller 280 receives control code information after the TS decoder detects an emergency-warning broadcast start code; the controller 280 stores the received control code information. *Id.* If the received emergency-warning broadcast reception area information contains the same specific information as the stored received control code information, the controller 280 powers on the

television and increases the volume of the television. *Id.*, 27:2-20. To increase the volume, the controller 280 transmits a signal to the amplifier 270, which “increases the output volume level” of the television. *Id.*

IV. LEGAL STANDARDS

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity ... the evidence that supports the grounds for the challenge to each claim”)). The burden of persuasion in an IPR “never shifts to the patentee.” *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Moreover, a petitioner should not “place the burden on [the Board] to sift through information presented by the Petitioners, determine where each element [of the challenged claims] is found in [the cited references], and identify any differences between the claimed subject matter and the teachings of [the cited references.]” *Google Inc. v. EveryMD.com LLC*, Case No. IPR2014-00347, Paper 9 at 25 (PTAB May 22, 2014).

A. Obviousness

A claim is unpatentable under 35 U.S.C. § 103(a) 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 at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. *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) when in evidence, objective indicia of non-obviousness (*i.e.*, secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). “To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

Finally, a petition seeking to establish obviousness based on more than one reference, as is the case here, “must articulate sufficient reasoning with rational underpinnings to combine the teachings.” *Wilson Elec., LLC v. Cellphone-Mate, Inc.*, Case No. IPR2018-01778, Paper 10 at 15 (PTAB Apr. 23, 2019) (citing *KSR Int’l*, 550 U.S. at 418).

B. Level of Ordinary Skill in the Art

Patent Owner asserts that a POSITA at the time of the invention would have a bachelor’s degree in electrical engineering, computer engineering, computer

science, or a related field, and two to three years experience in designing or developing telecommunication systems. Ex. 2005, ¶42.

V. FOR GROUND 1, THE PETITION FAILS TO DEMONSTRATE THAT *Downs* AND *EDACS* RENDER ALL CLAIMS OBVIOUS BY A PREPONDERANCE OF THE EVIDENCE

Downs in combination with *EDACS* fails to render obvious the Challenged Claims. “An obviousness determination generally requires [1] a finding that all claimed limitations are disclosed in the prior art, and [2] that a person of ordinary skill in the art would have been motivated to combine or modify the teachings in the prior art.” *Univ. of Strathclyde v. Clear-Vu Lighting LLC*, 17 F.4th 155, 160 (Fed. Cir. 2021) (citations omitted). *Downs* in combination with *EDACS* fails both requirements. Ex. 2005, ¶¶85-90. *EDACS* discloses an alert on a control channel **prior to** establishment of a media stream on a separate working channel. Accordingly, *EDACS* does not disclose or render obvious “receiving an alert in one of the media streams” or “elevating a priority associated with the media stream receiving the alert.” Ex. 1001, cl. 1, 11, 16. *Downs*, on the other hand, discloses an endpoint device that may receive a media stream, but does not change the media stream, such that *Downs* simply cannot disclose or render obvious “elevating a priority associated with the media stream receiving the alert” or “an adjustment is made to how the media stream is provisioned to an endpoint.” Ex. 1001, cl. 1, 11, 16.

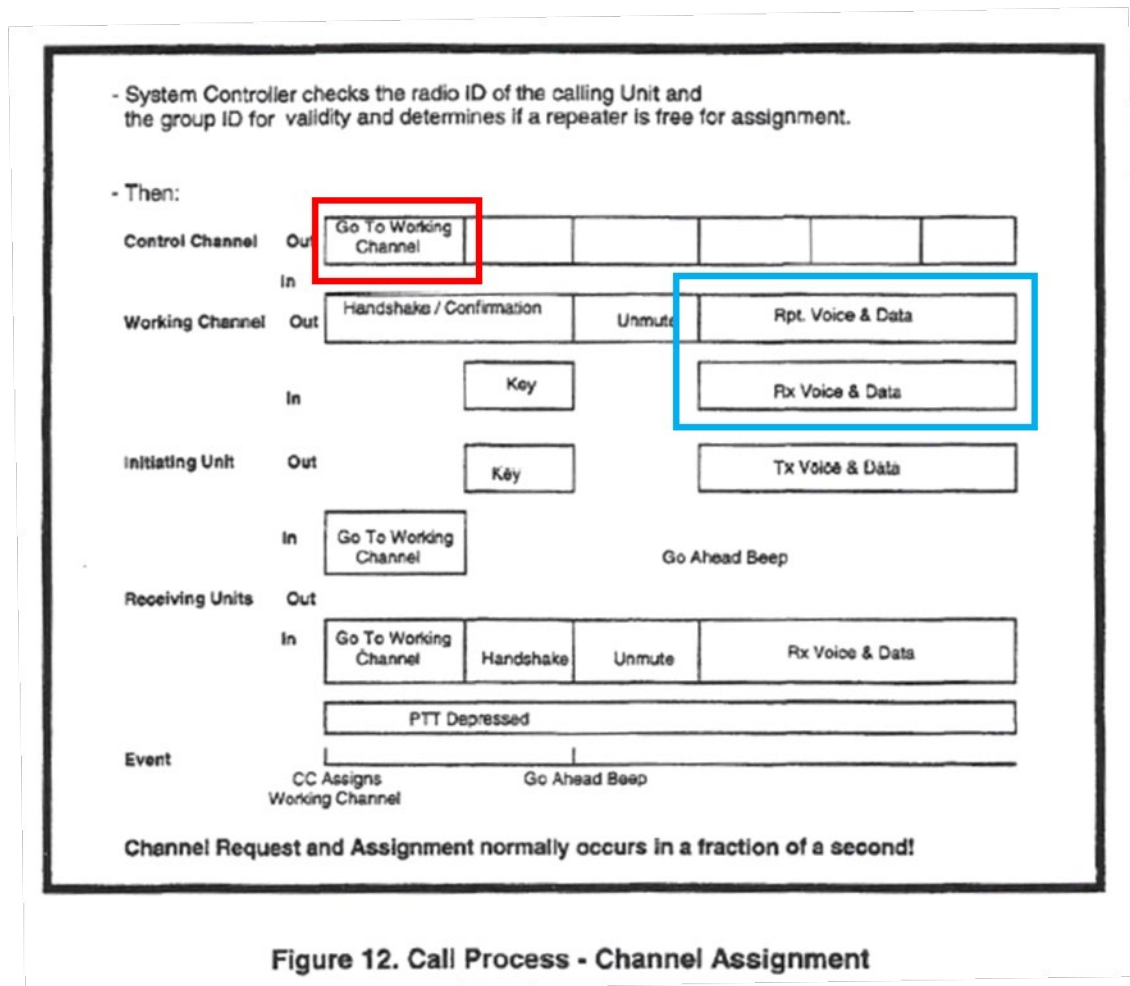
A. *EDACS* Does Not Disclose or Render Obvious “receiving an alert in one of the media streams”

Claim 1 recites “receiving an alert in one of the media streams.” Ex. 1001, cl. 1.⁵ The Petition relies on *EDACS* to meet this limitation. Petition, 30-31. However, *EDACS* does not describe or disclose any alert being received in a media stream. Ex. 2005, ¶¶91-100. In the Parallel Proceedings, “media stream” has been construed as “audio or video or both, which may include associated data.” Ex. 2004, 42. In contrast, *EDACS* receives an alert through data, not audio or video as required, over a control channel. Ex 1005, 25, 65. *EDACS* does not receive voice or audio with the alert over the control channel, and thus cannot be construed to receive an alert in one of the media streams. Ex. 2005, ¶98.

The Petition relies on *EDACS* to meet the limitation of “receiving an alert in one of the media streams” and expressly acknowledges that *Downs* does not disclose this limitation. Petition, 30-31 (“Downs, however, does not explicitly disclose how its system determines a call is an emergency call. Downs+EDACS discloses this information.”). However, *EDACS* does not describe or disclose any alert being received in a media stream. Ex. 2005, ¶¶91-100.

⁵ Independent claims 11 and 16 recite the same limitation. Ex. 1001 cl. 11, 16. Thus, *EDACS* likewise fails to render claims 11 and 16 obvious.

EDACS discloses a trunked radio system that receives emergency alerts sent on a repeater control channel. Ex. 1005, 25, 50. This control channel does not receive audio or video. *Id.*, 61; Ex. 2005, ¶¶94, 97. Figure 12 from *EDACS*, reproduced and annotated below, outlines the “Call Process – Channel Assignment” and shows that only a working channel receives voice and data (blue), whereas the control channel simply sends data to devices, instructing them to “go to Working Channel” (red) if they want to transmit voice & data.



Ex 1005, 65, Fig. 12 (annotated).

The alerts received over the control channel simply request that *EDACS*' system provide a working channel for an emergency group call. *Id.*, 25 (noting the inbound message includes specific data pertaining to call identification type); *see* Fig. 9 (discussing the request format and the type of call, which individual ID the call is received from, and who the originator intends to speak with). When a control channel receives a request from an originator PTT mobile radio, *EDACS*' system assigns the request to a free working channel. *Id.*, 25, 62. Once on the working channel, the originating mobile radio can transmit voice. *Id.*, 57. *EDACS* specifies that “[r]adios intercommunicate ... analog voice, digital voice, or digital data ***through a working channel.***” *Id.*; Ex. 2005, ¶¶71-72, 97-99. However, the control channel does not operate this way. Ex. 1005, 57 (“All repeater channels ***except the single control channel*** operate as working channels”); Ex. 2005, ¶71-72.

Petitioner itself recognizes this clear deficiency in *EDACS*, stating that “[t]o the extent ‘*receiving an alert in one of the media streams*’ is construed to require the alert and media stream be received on the same channel, it is rendered obvious by Ground 2.” Petition, 30 n.5. Even so, the Petition bases this conclusion using cherry-picked statements that were likely chosen on a word search analysis. *Id.*; Ex. 2005, ¶100. When looking at the actual disclosures of *EDACS*, the Petition falls apart, especially when read in light of the District Court Claim Construction Order. *See* Ex. 2004, 42; Ex. 2005, ¶¶98-100.

The Petition points to the emergency call request being the claimed “alert” and goes on to state that the assignment of priority—as discussed at Ex. 1005, 51—meets this limitation. Petition, 31. This is simply not the case. Ex. 2005, ¶¶94-96. *EDACS* emergency call request begins transmission after pushing a PTT emergency button. Ex. 1005, 25. The request is made on the ***control channel***. *Id.* The control channel does not behave like the working channels—the working channels perform the intercommunication for voice/audio and visual data. *Id.*, 57. The Claim Construction Order requires a media stream to have “audio or visual” data. Ex. 2004, 42. Since the control channel is merely a repeater channel that does not transmit audio or visual, then *EDACS*’ control channel cannot transmit a “media stream.” Ex. 2005, ¶¶71-72. Since the control channel is not transmitting a media stream, as defined by the Claim Construction Order, the alert in *EDACS* is not received ***in a media stream***. Ex. 2005, ¶102.

Petitioner argues that the claimed single media stream somehow includes data communicated over *EDACS*’ control channel in addition to voice and data communicated over ***a separate and later-assigned*** working channel. Petition, 30-32. However, this is incorrect. Ex. 2005, ¶¶71-72. A media stream cannot include separate data being communicated over *EDACS*’ control channel in combination with voice and data communicated over a working channel. Ex. 2005, ¶¶71-72, 96-97, 99.

The claims of the '664 Patent require that the media stream be provisioned to an endpoint. Ex. 1001, cl. 1. The control channel from *EDACS* is not provisioned to an endpoint. Ex. 2005, ¶99. Instead, *EDACS*' control channel provides system control information between a system and PTT mobile radios. Ex. 1005, 50, 61-62; Ex. 2005, ¶¶98-100. An emergency call request transmitted from a PTT mobile radio to *EDACS*' system is not provisioned to other mobile radios. *Id.*, 23, 25. Rather, the emergency call request is processed at *EDACS*' system to assign a free working channel. *Id.*, 25; Ex. 2005, ¶¶65-72. There is no reason for the emergency call request to be transmitted to other mobile radios since such radios do not assign working channels. Ex. 1005, 23, 25. As a result, the data communicated over *EDACS*' control channel is not part of the claimed media stream. Ex. 2005, ¶100.

The '664 Patent specifically claims “media streams associated with channels in a communication environment.” Ex. 1001 cl. 1, 11, 16. Further, the '664 Patent discloses that media streams are provided over single channels. *See* Ex. 1001, cl. 1; Ex. 2005, ¶31. For instance, the '664 Patent details that the channels are given specific identifiers to assure that the channel is recognized by the network. Ex. 1001, 3:46-51. The transmission is sent on a single channel, which may or may not be a high priority channel but is nevertheless specific. *Id.*, 3:51-55; Ex. 2005, ¶26. This requirement is seen in the claims where the alert is required to come “in one of the media streams” and each limitation of the claim thereafter requires elevations and

adjustments to “*the* media stream receiving the alert.” *Id.*, cl. 1. This requirement cannot be met by an alert originating on one channel, leading to a call assignment to another channel after the system recognizes the alert, as disclosed by *EDACS*. Ex. 2005, ¶¶92-95.

Nothing in *EDACS* describes receiving an alert in one of the media streams. As a result, the Petition fails to identify or render obvious this claim element of claim 1. Similarly, claims 11 and 16 recite the same element of “receiving an alert in one of the media stream” and are therefore not obvious for the same reasons as claim 1.

B. *EDACS* Does Not Disclose or Render Obvious “elevating a priority associated with the media stream receiving the alert”

Claim 1 of the ’664 Patent requires “elevating a priority associated with the media stream receiving the alert.” Ex. 1001, cl. 1.⁶ For the reasons discussed above, *EDACS* fails to disclose receiving an alert in a media stream. *EDACS* instead receives an emergency call request in a system via a control channel for assigning a working channel between PTT mobile radios. However, even if the combination of the voice and data communicated in the *EDACS*’ working channel and the separate data communicated by the *later-assigned* control channel is construed to encompass

⁶ Independent claims 11 and 16 recite the same limitation. Ex. 1001 cl. 11, 16. Thus, *EDACS* likewise fails to render claims 11 and 16 obvious.

a media stream (as alleged by the Petition), *EDACS* still fails to disclose elevating a priority associated with the media stream. Ex. 2005, ¶¶101-107.

The identified emergency call request in *EDACS* does not disclose a media stream, which must include “audio or video,” until after a working channel is allocated. Ex. 1005, 25; Ex. 2005, ¶¶105-106. After the emergency group call is set up in a working channel, *EDACS* discloses that no further adjustments are made to the emergency group call for the duration of the conversation. Ex. 1005, 25, 37; Ex. 2005, ¶¶107, 109. In other words, *EDACS* fails to disclose any adjustment, much less elevating a priority, of an emergency group call once the group call is established on a working channel for voice transmission. Ex. 2005, ¶¶107, 109.

The Petition attempts to blur the communications over *EDCAS*’ control and working channel to allege there is an elevation in a priority associated with the media stream receiving the alert. Petition, 32-34. Specifically, the Petition argues “[u]pon receiving an emergency call request (*alert*), *EDACS* discloses that “[t]he system *automatically assigns the highest priority* to the talk group[’s]” signals (*media stream receiving the alert*).” *Id.*, 30-32. The Petition supports this statement with conclusory statements from their expert Mr. Williams, which merely parrot the statements of the Petition. Petition, 34; Ex. 1002, ¶¶160-161. However, the elevation in priority (disclosed as assigning the highest priority to the talk group in *EDACS*) occurs *before* the media stream is created on a working channel, i.e., before

voice is transmitted. Ex. 2005, ¶105. Indeed, audio/voice cannot be transmitted between mobile radios at the moment when the mobile radios are assigned a highest priority since the mobile radios have not yet been placed on a working channel to enable communication. Ex. 1005, 25; Ex. 2005, ¶104-107. It is only after the mobile radios are placed on a working channel (based on priority) that voice data may be transmitted. Ex. 1005, 25, 61-63; Ex. 2005, ¶72.

EDACS does not disclose, nor does the Petition indicate that *EDACS* discloses elevating a priority associated with a working channel *after* the working channel has been created, which is when the working channel includes voice and is considered a media stream by the Claim Construction Order. Ex. 2004, 42. *EDACS* instead indicates that communications continue over the working channel until a conversation or an emergency ends. Ex. 1005, 25, 37. Since *EDACS* has communication only over this working channel, then *EDACS* does not elevate a priority associated with the media stream given the working channel is assigned *after* the system recognizes the request on the control channel. Thus, *EDACS* fails to disclose elevating a priority associated with a media stream, as recited in independent claims 1, 11, and 16. Ex. 2005, ¶¶104-107. The Petition thus fails to identify or render obvious the claim element “elevating a priority associated with the media stream receiving the alert.”

C. *Downs* Also Does Not Disclose or Render Obvious “elevating a priority associated with the media stream receiving the alert”

Claim 1 of the '664 Patent recites “elevating a priority associated with the media stream receiving the alert.” Ex. 1001, cl. 1.⁷ *Downs* is directed to an endpoint dispatcher console that displays call statuses or provides audio after a dispatcher determines a requisite level of response to a media stream for a group call. Ex. 1004, 5:60-6:9; Ex. 2005, ¶¶48-59. Since the media stream terminates at *Downs*' dispatcher console, the associated media stream is completely unaffected by any local priority elevation at *Downs*' console. *Id.*

Downs discloses an endpoint device, Petitioner's declarant confirmed as much. Ex. 2006, 22:24-23:2. Specifically, in *Downs*, a dispatcher can manually select a communication module and designate it with an emergency condition, which alters the way the communications are presented to the dispatcher through the console, for example, by increasing the console's volume. Ex. 1004, 6:47-53, *see also id.*, 8:40-47. In other words, the dispatcher **chooses** how the dispatch console displays different RF groups by picking specific communication modules and manually establishing conditions. *Id.*, 8:41-48. The Petition's assertion that

⁷ Independent claims 11 and 16 recite the same limitation. Ex. 1001 cl. 11, 16. Thus, *Downs* likewise fails to render claims 11 and 16 obvious.

manually changing the volume at *Downs*' endpoint device somehow "elevates the priority of the communication module" is unfounded and at odds with the actual teachings of *Downs*. Petition, 36; Ex. 2005, ¶¶108-118. The Petition fails to identify any evidence in support of this argument, and instead rests on broad assertions and suppositions by Petitioner's Expert to fill this limitation. *Id.*; see also Ex. 1002, ¶¶165-166 (echoing the words of the Petition with conclusory statements). Even Petitioner's Expert admits that *Downs* is merely an endpoint device. Ex. 2006, 22:24-23:2. The conclusion argued by the Petition is incorrect and based on assumptions of disclosures not found in *Downs*. Ex. 2005, ¶95. Accordingly, *Downs* fails to disclose elevating a priority associated with the media stream receiving the alert. Ex. 2005, ¶108-118.

Additionally, claim 1 of the '664 Patent recites the steps of the method to be completed in order and affect the media stream itself. Ex. 1001, cl. 1 ("elevating a priority associated with *the* media stream receiving the alert"); Ex. 2004, 16. Claim 1 requires "elevating a priority associated with the media stream receiving the alert, *such that* an adjustment is made *to how the media stream is provisioned* to an endpoint." Ex. 1001, cl. 1. The plain language of this claim requires the priority elevation adjust how the media stream is provisioned to an endpoint like *Downs*, not simply that an endpoint may adjust its own parameters once it receives a media stream. Plainly, the manner in which the media stream itself is to be provisioned to

the endpoint occurs *before* the media stream reaches the endpoint. *Id.*, 3:56-6:9; Ex. 2005, ¶¶114-116.

Downs—at best—discloses adjustments made at an endpoint to the manner in which information from a media stream is presented to the dispatcher sitting at its console. Ex. 1004, 6:40-46; *see also Id.*, 6:50-52 (noting that the volume levels are “set” to a specific volume depending on the dispatcher implying that the levels are dispatcher dependent and affect the headset); Ex. 2005, ¶¶111-114. As such, nothing in *Downs* describes elevating a priority associated with a media stream as that phrase is used in the ’664 Patent and *Downs* fails to disclose or render obvious the claimed “elevating a priority associated with the media stream receiving the alert.”

D. *Downs* Does Not Disclose or Render Obvious “an adjustment is made to how the media stream is provisioned to an endpoint”

Claim 1 of the ’664 Patent recites, in part, “an adjustment [be] made to how the media stream is provisioned to an endpoint.” Ex. 1001, cl. 1. This adjustment occurs to the *same* media stream through which the alert is received. *Downs* does not describe or suggest any such adjustment being made on the same media stream through which the alert was received such that the adjustment is made to how the media stream is provisioned to an endpoint. Ex. 2005, ¶¶119-123.

Downs is directed to an endpoint console that receives different communication channels. Ex. 1004, 3:4-33. *Downs* groups the received channels

according to system hierarchies designed by system moderators and displays information related to the channels on a screen for a dispatcher to view. *Id.*, Fig. 2, 6:13-18 (describing the main windows on the console monitor as “communication modules”). These groupings allow dispatchers to become familiar with the system. *Id.*, 6:1-5. On these modules, a communication is received by the console unit and the dispatcher then assesses the issue and acts accordingly based on the communication. *Id.*, 8:29-35 (noting that the common functions of the keyboard designations are set as “dedicated keys” and include “emergency condition[s]”); Ex. 2005, ¶120.

The Petition alleges adjustments to the volume of the dispatcher’s headset meet the claim limitation. Petition, 34. This is simply not true. Petitioner’s expert—and the Petition itself—agree that *Downs*’ console is an endpoint. Ex. 2006, 22:24-23:2; Petition, 36 (“the dispatcher’s console (endpoint in the communication environment)”)(emphasis in original); Ex. 1002, ¶¶165-166. Since the console is an endpoint, *Downs* only discloses receiving and using information from a media stream for display on the console. Ex. 1004, 6:10-28; Ex. 2005, ¶¶121-122. *Downs* does not make adjustments to the media stream itself since *Downs* does not further provision the media stream to another endpoint. Ex. 1004, 7:40-46; Ex. 2006, 22:24-23:2, 126:19-21, 26:23-24 (acknowledging that the dispatcher will establish or clear alerts to a channel). Indeed, Petitioner’s Expert admits that *Downs*’ console is an

endpoint. Ex. 2006, 22:24-23:2. The disclosure cited by the Petition that purportedly meets this limitation of claim 1 happens *after* the emergency signal reaches *Downs*' console. See Ex. 1004, 6:39-53. The pre-set levels are implemented by the dispatcher at the console to achieve specific goals after the communications reach the console. *Id.*, 8:40-48 (noting that the “dispatcher can choose a particular communication module” to act upon and “adjust its volume via keys” or establish the emergency on the channel). The Petition's argument thus fails as the alleged “adjustments” occur *after* the media stream is received and information from the media stream is acted upon by a dispatcher. Ex. 2005, ¶123.

Nothing in *Downs* describes adjusting how the media stream is provisioned to an endpoint; *Downs* does not alter a media stream at all. The Petition thus fails to identify or render obvious the claim element “an adjustment is made to how the media stream is provisioned to an endpoint.”

VI. Ground 2: Ground 1 in further view of *Childress*

Downs in combination with *EDACS* and in further view of *Childress* fail to render obvious the Challenged Claims. “An obviousness determination generally requires [1] a finding that all claimed limitations are disclosed in the prior art, and [2] that a person of ordinary skill in the art would have been motivated to combine or modify the teachings in the prior art.” *Univ. of Strathclyde v. Clear-Vu Lighting*

LLC, 17 F.4th 155, 160 (Fed. Cir. 2021) (citations omitted). Ground 2 fails both requirements.

A. *Childress* Does Not Disclose or Render Obvious “receiving an alert in one of the media streams”

Claim 1 recites “receiving an alert in one of the media streams.” Ex. 1001, cl. 1.⁸ This alert needs to be received on the same media stream for which “elevating a priority associated with the media stream receiving the alert” occurs. As provided above, in the Parallel Proceedings, “media stream[s]” are defined as having “audio or video or both, which may include associated data.” Ex. 2004, 42.

In a catch-all attempt, the Petition tries to fix the Ground 1 inadequacies by arguing that *Childress* discloses “receiving an alert in one of the media streams.” Petition, 50. According to the Petition, “it would have been obvious to a POSITA that a single working channel with a ‘Message Trunking’ bit, or a ‘Group Emergency’ ID would indicate an alert to the receiving unit,” and allegedly this statement discloses that “the alert and voice data [are] transmitted on the same channel.” *Id.* This is an overstatement of any disclosure found in *Childress*. Ex.

⁸ Independent claims 11 and 16 recite the same limitation. Ex. 1001 cl. 11, 16. Thus, *Childress* likewise fails to render claims 11 and 16 obvious.

2005, ¶¶124-133. *Childress* does not describe or disclose any alert being received in a media stream. Ex. 2005, ¶¶129-130.

Childress discloses a trunked radio system utilizing call requests that begin on a control channel. Ex. 1031, 13:15-20; Ex. 2005, ¶¶73-78. Once the request is received by the central site, the site then transmits an assignment to the call requestor. Ex. 1031, 13:15-20. The receiving call unit then automatically allocates the call to the assigned channel. *Id.* Once the calling unit is on the working channel, it then responds with an acknowledgment back to the central site to complete the handshakes. *Id.*, 13:21-42.

The control channel receives alerts and data but does not receive audio or video. *Id.*, 13:43-50 (stating that that the working channel transmits assignment and request data which the called unit waits for); Ex. 2005, ¶¶128-129. *Childress* defines what the control channel is and how this channel is used in the system. Ex. 1031, 6:50-58 (“In addition to providing channel assignments, the control channel is used for: status messages, polling, system status, logging, late entry, dynamic regrouping, system testing and other system functions.”). This statement confirms that the control channel is used for messaging purposes and is not used to transmit any “audio or visual” data; therefore, the data received over the control channel cannot be a media stream as construed by the District Court. Ex. 2004, 42; Ex. 2005, ¶130.

The Petition states that a POSITA would understand that the “emergency group call confirmation message” would indicate an alert being received along with voice data for the call. Petition, 50. The Petition overlooks that the citation for which the alleged alert describes the “radio call sequence” for emergency group calls. Ex. 1031, 28:4-60; Ex. 2005, ¶¶127-129. Nothing in this citation discusses receiving an alert in a media stream, as required by the Challenged Claims. Instead, the call request follows the general initiation sequence of *Childress*, as discussed above.

The mobile unit originates a group call transmission and assignment request on the control channel with *control messages*. *Id.*, 28:16-19. Once the emergency group call request message is received, the *control channel* then responds with two channel assignments that are given in specific code. *Id.*, 28:33-41. All mobiles of the called group are then *allocated* to a *working channel*. *Id.*, 42-50. A media stream between the mobile units can only begin after the mobile units swap to the new working channel, and by that time, there is no longer an alert communicated. At best, the Petition seems to imply that a “confirmation message” somehow is an alert, but this is simply not the case. Petition, 50; Ex. 2005, ¶¶127, 129. A POSITA would understand that the claimed “alert” must originate in the media stream. Ex. 2005, ¶¶31, 128, 130. Since *Childress* receives the alleged alert on a first channel in a *non-media* stream and then allocates to a different channel before

communicating in a media stream (similar to *EDACS*), *Childress* fails to meet the limitations of the Challenged Claims for the same reasons as *EDACS*. Ex. 2005, ¶¶130-133.

As such, *Childress* fails to describe an alert being received in a channel capable of communicating a media stream. Accordingly, the Petition fails to identify or render obvious the claim element “receiving an alert in one of the media streams.”

B. The Petition Fails to Show a Motivation to Combine Ground 1 in further view of *Childress*

The Petition throws yet another reference into the mix in an attempt to cobble together an obviousness argument using the teachings of a reference already implemented by *EDACS*. In doing so, the Petition relies on impermissible hindsight, a conclusory motivation to combine, and a failure to address the actual teachings of *Downs*, *EDACS*, and *Childress* in favor of focusing on its “intent” analysis. The Petition ignores the differences in implementation, purpose, and outcome of the systems.

a. *EDACS* Already Identifies and Solves the Alleged “Challenges” that the Petition Relies on for a Motivation to Combine *Downs* and *EDACS*

Rather than indicating specific reasons why a POSITA would be motivated to combine the cited references, the Petition appeals broadly to general desires and problems known in trunked radio systems, and incorrectly alleges that it would be

obvious to combine *Downs* and *EDACS* with *Childress* as the combination would be used to face similar problems. *Id.* However, the issue is not what could be done, but **why** would it be done, as assertions that claim elements are known are insufficient to establish a motivation to combine. *Virtek Vision Int., ULC. v. Assembly Guidance Systems, Inc., DBA Aligned Vision*, No. 2022-1998 (Fed. Cir. Mar. 27, 2024) (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007)).

According to the Petition, a POSITA would be motivated to implement the emergency call group call message ID of *Childress* into the *Downs* and *EDACS* combined system because the combination would provide “numerous efficiency and interoperability benefits.” Petition, 49. This would not motivate a POSITA to make any changes to *Downs* and *EDACS* because *EDACS* already addresses the issue from *Childress* described by the Petitioner. Ex. 2005, ¶¶134-137.

The Petition’s reliance on broad problems or objectives in the field to reconstruct the claimed invention is impermissible. In *Johns Manville Corp. v. Knauf Insulation, Inc.*, this Board stated when denying institution that “[d]emonstrating that a reference is analogous art or relevant to the field of endeavor of the challenged patent is not sufficient to establish that one of ordinary skill would have had reason to combine its teachings with other prior art in the manner set forth in the claim.” IPR2018-00827, Paper 9 at 17 (P.T.A.B. Oct. 16, 2018) (informative, designated Dec. 11, 2019) (citing *Securus Techs., Inc. v. Global Tel*Link Corp.*, 701 F. App’x

971, 977 (Fed. Cir. 2017)). In *Securus Techs.*, the Federal Circuit held that the Board correctly found that the proposed rationale to combine the asserted art was “simply too conclusory.” 701 F. App’x at 976. This holding was based on Securus “assert[ing], without more, that because [the references] were drawn from the same general field of art, the skilled artisan would have turned to them to solve the problems identified” in the challenged patent. *Securus Techs.*, 701 F. App’x at 976-77 (citing *Microsoft Corp. v. Enfish, LLC*, 662 F. App’x 981, 990 (Fed. Cir. 2016)). The Federal Circuit criticized petitioner’s reliance solely on the same field of endeavor, stating “[s]uch short-cut logic would lead to the conclusion that any and all combinations of elements known in this broad field would automatically be obvious, without the need for any further analysis. The Board, therefore, properly rejected Securus’ assertion of obviousness.” *Securus Techs.*, 701 F. App’x at 977. Further, efficiency is the type of generic concern that exists across all systems and thus cannot be the basis for a valid motivation to combine. *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012).

EDACS discloses that the emergency calls are designated as “emergency group calls.” *Id.* The “emergency group call” is initiated with an “Emergency” condition message that is initiated by the “caller” and transmitted by the mobile radio on the control channel. *Id.*, 51. *EDACS*’ system receives the emergency request and assigns a call associated with the request to a free working channel. *Id.*, 25. The

assignment confirmation is received by the radio unit and automatically allocates the call to the assigned working channel. *Id.* For the duration of the emergency call, the assigned working channel is dedicated to the *individual* emergency through message trunking until the dispatcher clears the group from the emergency status. *Id.*, 25; *see supra* Section III.B.

Thus, the Petition's argument fails because *EDACS* already solves the "challenge" that allegedly exists, in that it already utilizes a trunked radio system to allocate emergency group messages without the need for supplemented "Group ID" to be implemented from *Childress*. Ex. 2005, ¶¶135-136; *See e.g., Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d. 1342, 1369 (Fed. Cir. 2012) ("[B]oth of these references independently accomplish similar functions Because each device independently operates effectively, a person having ordinary skill in the art, who was merely seeking to create a better device [], would have no reason to combine the features of both devices into a single device."). As *EDACS* already addresses the "problem" of transmitting emergency group message requests in a trunked radio system, there is no basis to suggest that a POSITA would need to look elsewhere to compensate for any alleged "problem."

The Petition's alleged combination would not have suggested that a POSITA make any changes to *Downs* and *EDACS*. Ex. 2005, ¶¶135-138. The teachings of

EDACS would cause a POSITA to proceed in a different direction and not look to *Childress*. Ex. 2005, ¶138.

The Petition's conclusory and inconsistent arguments illustrate a high degree of reliance on hindsight to reconstruct the claimed invention. Based on these flawed arguments, a POSITA would not be motivated to combine the cited references to arrive at the challenged claims.

VII. Ground 3: Claims 3-5, 13-14, and 18-19 Are Not Obvious Over Ground 1 And in Further View of *Hancock*

For claims 1, 11, and 16, from which claims 3-5, 13-14, and 18-19 depend, Ground 3 relies on the obviousness analysis of *Downs* alone or in combination with *EDACS*. Petition, 51-58. Since the Petition fails to show a reasonable likelihood that claims 1, 11, and 16 are unpatentable, Ground 3 also fails to show a reasonable likelihood of success.

VIII. Ground 4: Claims 3-5, 13-14, and 18-19 Are Not Obvious Over Ground 2 and in Further View of *Hancock*

For claims 1, 11, and 16, from which claims 3-5, 13-14, and 18-19 depend, Ground 4 relies on the obviousness analysis of *Downs* alone or in combination with *EDACS*. Petition, 58. Since the Petition fails to show a reasonable likelihood that claims 1, 11, and 16 are unpatentable, Ground 4 also fails to show a reasonable likelihood of success.

IX. Ground 5: Claims 7 and 10 Are Not Obvious Over Ground 1 in Further View of *Reich*

For claim 1, from which dependent claims 7 and 10 depend, Ground 5 relies on the obviousness analysis of *Downs* alone or in combination with *EDACS* in further view of *Reich*. Petition, 58-65. Since the Petition fails to show a reasonable likelihood that claim 1 is unpatentable, Ground 5 also fails to show a reasonable likelihood of success.

X. Ground 6: Claims 7 and 10 Are Not Obvious Over Ground 2 in Further View of *Reich*

For claim 1, from which claims 7 and 10 depend, Ground 6 relies on the obviousness analysis of Ground 2 in further view of *Reich*. Petition, 66. Since the Petition fails to show a reasonable likelihood that claim 1 is unpatentable, Ground 6 also fails to show a reasonable likelihood of success.

XI. THE PETITION FAILS TO DEMONSTRATE THAT *KIM* RENDERS ALL CLAIMS OBVIOUS BY A PREPONDERANCE OF THE EVIDENCE IN GROUND 7

In Ground 7, the Petition and its expert ignore fundamental differences between *Kim* and the '664 Patent and fail to accurately represent what *Kim* fairly suggests to a skilled artisan. Petition, 66-80. With a single reference obviousness challenge, “it is not enough that the prior art reference discloses part of the claimed invention ... or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention.” *Net MoneyIN, Inc. v.*

VeriSign, Inc., 545 F.3d 1359, 1371 (Fed. Cir. 2008) (citations omitted). Rather, “there must be a showing or a suggestion or motivation to modify the teachings of that reference.” *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000). Ground 7 does not satisfy this standard. Ex. 2005, ¶¶138-145.

Kim fails to render claims 1, 11, and 16 obvious because *Kim*’s system does not “elevate a priority associated with the media stream” nor does *Kim* adjust “how the media stream is provisioned *to an endpoint*.” Ex. 1001, cl. 1. This failure is rooted in key differences between *Kim* and the ’664 Patent. Most notably, *Kim* is a television endpoint that *reacts* to received broadcast television signals by adjusting endpoint settings; *Kim* does not have any control over the broadcast television signals themselves and how the broadcast signals are provisioned *to* the endpoint (the television). Ex. 2005, ¶142. In contrast, the ’664 Patent dynamically manages communication channels by *adjusting* how a media stream is provisioned *to the endpoint*. The Petition never directly addresses this difference.

A. *Kim* Does Not Elevate or Adjust the Media Stream Provisioned to an Endpoint as Required by Independent Claim 1

Kim fails to render claims 1, 11, and 16 obvious because *Kim*’s system does not elevat[e] a priority associated with the media stream receiving the alert nor does *Kim* teach an *adjustment* is made to how the media stream is *provisioned to an*

endpoint in the communication environment. Ex. 1001, cl. 1.⁹ In contrast to the communication system of the '664 Patent, which dynamically manages communication channels by elevating a priority associated with the media stream receiving the alert by making adjustments to how the media stream itself is provisioned to an endpoint, *Kim* simply adjusts the settings of its endpoint (*i.e.*, the television). As detailed herein, such adjustments are not “elevating a priority associated with the media stream” and do not provide “an adjustment [that] is made to how the media stream *is provisioned to an endpoint*.” *Id.* Therefore, *Kim* fails to render the independent claims of the '644 Patent obvious.

1. An Endpoint Cannot Adjust How the Media Stream is Provisioned to Itself

The Petition argues that the endpoint of *Kim* (*i.e.*, the television) includes a controller, which adjusts the power, mode, output, and volume of the broadcast data. Petition, 70-72. The Petition then concludes—without specifically addressing the “provisioned to” language of claim 1—that the controller’s function satisfies claim limitation 1[c]. *See* Petition, 70-72. Because *Kim*’s television does not transmit the television broadcast signal to other endpoints, in essence, the Petition contends that

⁹ The arguments throughout this section are also applicable to the elevating limitations found in claims 1, 11, and 16.

the television's controller adjusts how the broadcast media is provisioned to itself. *See* Petition, 70-72. Ex. 2005, ¶¶138-145. The Petition's argument fails in view of the plain meaning of the claim language and its support in the specification of the '664 Patent.

First, the plain and ordinary language of claim 1 requires the system to adjust the media stream *before* being received by the endpoint. Ex. 2005, ¶123. Specifically, claim 1 recites “elevating a priority associated with the media stream receiving the alert, such that an adjustment is made to how the media stream *is provisioned to an* endpoint in the communication environment.” Ex. 1001, cl. 1. Because the adjustment is made to how the media stream is provisioned *to* the endpoint, the adjustment must occur before the endpoint receives the media stream. Ex. 2005, ¶144. Otherwise, the system could not adjust how the media stream is provisioned to the endpoint. *Id.*, ¶¶144-145. The Petition ignores this deficiency in its analysis.

The specification of the '664 Patent is consistent with the claim language. As explained in the Section II.A, the communication system includes an IP network 20 coupled to a UMS element. Ex. 1001, 2:37-40. The UMS controls the relative volume of each media stream, which are streamed to the management center. *Id.*, 5:36-52. By adjusting the volume of the media stream, “the provisioning is being done *externally*, and the individual endpoints do not have to be capable of managing

these alert messages.” *Id.*, 5:50-52. In other words, “an adjustment is made to how the media stream *is provisioned to an* endpoint in the communication environment.” *Id.*, cl. 1. By contrast, *Kim*’s television is an endpoint that does not adjust how a media stream is provisioned to either itself or other endpoints. Ex. 2005, ¶¶140-142.

2. *Kim* Does Not Elevate a Priority Associated with the Media Stream Receiving the Alert

Claims 1, 11, and 16 of the ’664 Patent require “elevating a priority associated with the media stream receiving the alert.” In contrast, *Kim* receives broadcast data in exactly the same form as originally broadcast, with no elevation of the priority associated with the media stream receiving the alert. In response to receiving the broadcast data, the television’s controller adjusts the television’s settings. At no point does *Kim* elevate a priority, or make any other adjustment or modification, associated with the media stream receiving the alert. Ex. 2005, ¶¶140-140-142. *Kim*’s system simply (1) receives a broadcast signal at the television; (2) detects the inclusion of an emergency-warning broadcast signal; and (3) powers on the television (or adjusts a volume of the television or channels a television channel) when predetermined registration information is detected from the emergency-warning broadcast signal. Ex. 1008, 4:1-12; Ex. 2005, ¶¶142-143. In other words, *Kim* describes an endpoint that receives broadcast data, does not elevate a priority associated with the broadcast data, and then simply makes adjustments to itself in

response to receiving the broadcast data. Accordingly, *Kim* cannot render obvious claims requiring elevating a priority associated with the media stream receiving the alert.

Figure 3 from *Kim* provides an example process. At step I, the television's controller monitors individual channels to detect an emergency-warning broadcast start code. Ex. 1008, 15:13-22. Once a start code is detected (*i.e.*, step II), the controller compares the transmission time to the television's real-time clock (*i.e.*, step III). *Id.*, 15:23-16:3. In step IV, the controller compares the received information against the information stored in the memory. *Id.*, 16:6-10. If the information matches, the controller powers on the television, prescribes the emergency-warning broadcast channel, and increase the volume (steps VI to VIII). *Id.*, 16:11-17:11; Ex. 2005, ¶141.

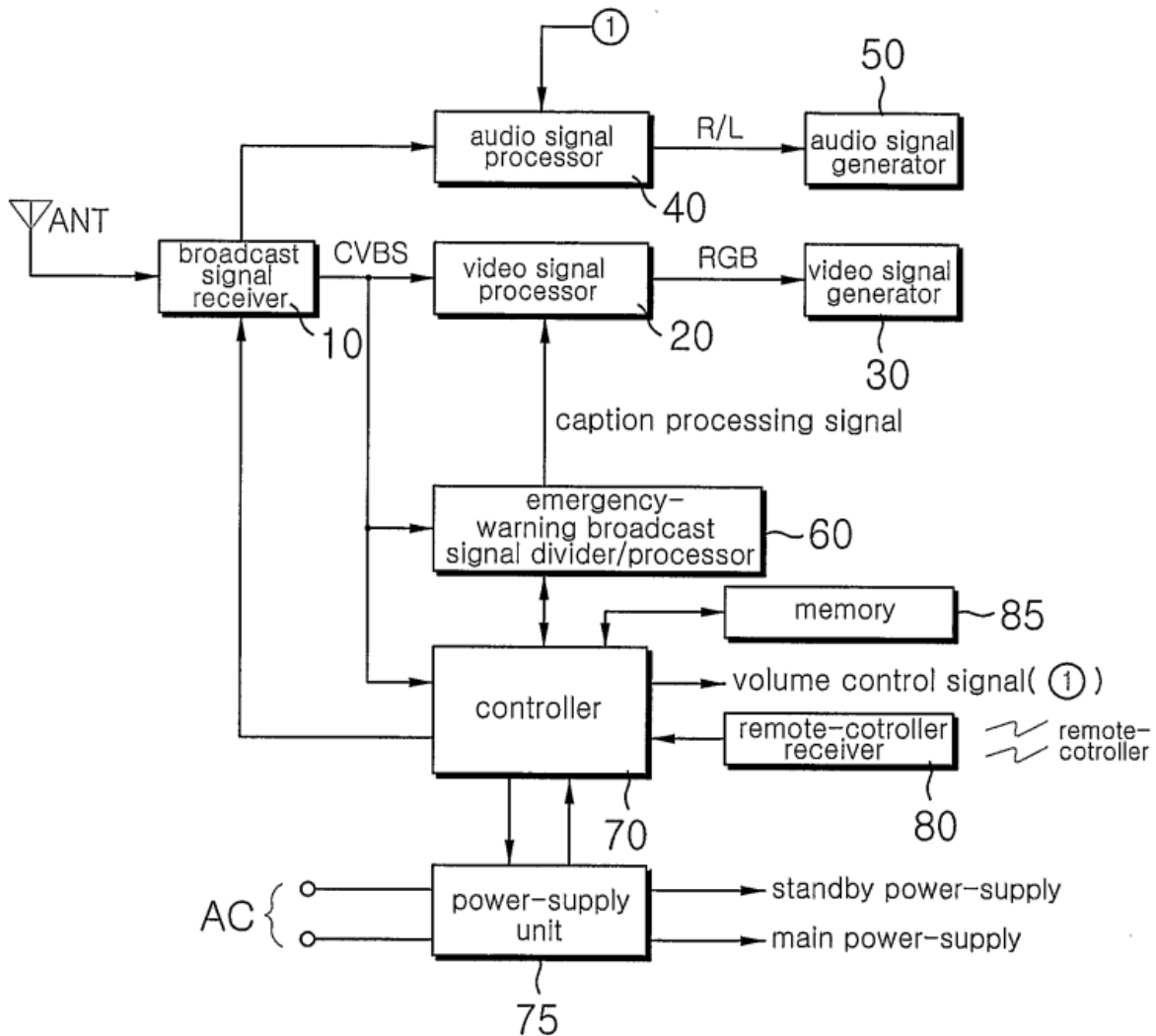
This entire process (as well as *Kim* as a whole) is directed to using “a television system serving as a broadcast signal receiver.” *Id.*, 2:3-4. The television receives a broadcast signal and then adjusts its operations accordingly. There is no elevation of the media stream nor adjustment to how the media stream is provisioned *to* the television. Ex. 2005, ¶153. The Petition notably ignores this claim language.

3. The Fundamental Operation of the '664 Patent Differs from the System of *Kim*

Kim's system fundamentally differs from the communication system of '664 Patent. First, *Kim* is a message-based system while the '664 Patent is a channel-based system. Ex. 2005, ¶142. Second, unlike *Kim*, the '664 Patent manages media streams independent of endpoint functionality. *Id.*, ¶¶142-143. Due to these differences, *Kim* is incapable adjusting “how the media stream is *provisioned to an endpoint* in the communication environment.” Ex. 1001, cl. 1. In other words, the fundamental differences between *Kim* and the '664 Patent are highlighted by the “provisioned to” claim language.

a. *Kim* Provides a Message-Based System While the '664 Patent Provides a Dynamic Channel-Based System

Kim's system is not capable of adjusting how a media stream is provisioned to the television because *Kim* is a *message-based* system—it responds to the received messages *without* any control over the media stream itself. Ex. 2005, ¶142. Figure 2 depicts a preferred embodiment of *Kim*'s television. Ex. 1008, 10:21-23. Referring to Figure 2, a broadcast signal receiver 10 receives and divides a broadcast signal into a CVBS signal and an audio signal. *Id.*, 9:24-10:3. The video signal processor 20 processes the CVBS signal for display and the audio signal processor 40 processes and outputs the audio signals to the speaker. *Id.*, 10:7-11:8.



Ex. 1008, Fig. 2.

When the broadcast signal receiver 10 divides the broadcast signal, the CVBS signal is also sent to the emergency-warning broadcast divider/processor 60. *Id.*, 11:13-19. The emergency-warning broadcast divider/processor 60 separates an emergency-warning broadcast signal from the CVBS signal, decodes the separated emergency-warning broadcast signal, and outputs the decoded result to the controller

70. *Id.* The controller 70 then detects whether the decoded emergency-warning broadcast control information includes an emergency-warning broadcast start information. *Id.*, 11:25-12:12. If detected, the controller can power on the television or change the channel to the emergency-warning broadcast channel. *Id.*

As *Kim*'s disclosure demonstrates, the television receives messages (e.g., broadcast signal) and detects when the message includes emergency-warning broadcast start information. *Id.*, 11:13-12:12. *Kim does not adjust* how the messages are provisioned to the television; the originating broadcast signal *is identical* to the received/displayed broadcast signal. Ex. 2005, ¶¶142-144. *Kim*'s message-based system receives and processes each received message in the same way—independent of the channel. *Id.*, ¶142. Depending on the content of the message, *the settings of the endpoint* are adjusted, but this is not the same as adjusting how the media stream is *provisioned to* the endpoint. *Id.* Thus, the Petition fails to show how *Kim*—which has no control over media streams within the channels—adjusts how the media stream is provisioned *to an endpoint* in the communication environment.

Unlike *Kim*'s television, the communication system of the '664 Patent— as a *channel-based* system—dynamically manages media streams over a plurality of channels. The communication system of the '664 Patent includes a UMS, which controls the relative volume of each media stream. Ex. 1001, 5:36-52. Based on

this control, the communication system coordinates and alters media streams within the channels. In the illustrative example of Section II.A, an end-user may designate a channel as low priority with a low volume. *Id.*, 7:61-63. However, the communication system may identify an alert indication and increase the volume of the channel or move the channel to a high priority spatial position. *Id.*, 7:66-8:5. Unlike *Kim*, these alterations occur independent of any settings of the endpoint as they are adjustments made to how the media stream is provisioned to the endpoint in the communication environment.

b. *Kim* Provides a Hierarchical System Without Dynamic Alert Identification Across Channels

Kim provides a hierarchical system, which receives broadcast signals of a ***predetermined*** emergency-warning broadcast channel. When broadcast signals are received, the television merely compares the received information to information stored in the television's memory. Ex. 1008, 26:24-27:20. If the received information is the same as that stored in the memory, the controller powers on the television. *Id.* Rather than merely compare received data, the communication system of the '664 Patent provides a novel mechanism that identifies and responds to alerts ***within*** the media stream. See Ex. 1001, 3:56-4:9. This novel functionality, which can be located at the UMS, allows the communication system of the '664

Patent to adjust how the media stream is then provisioned to the endpoint. *Id.*, 4:25-34; Ex. 2005, ¶24. *Kim*’s system does not have such functionality.

Further, as discussed in Section III.D, *Kim* provides a message-based system. This configuration, in combination with *Kim*’s lack of system intelligence, leads to the Petition’s failure to render obvious claim limitation 1[c]. Ultimately, Ground 7 does not render claim 1 obvious because *Kim*’s system does not adjust “how the media stream is *provisioned to an endpoint*.” Ex. 1001, cl. 1; Ex. 2005, ¶144. While the Petition appears to overlook this language, a fulsome review of the technology demonstrates that *Kim* lacks key functionalities required to perform claim 1.

XII. Ground 8: Claims 3-5, 13-14, and 18-19 Are Not Obvious Over Ground 7 in View of *Ishibashi*

For claims 1, 11, and 16, from which claims 3-5, 13-14, and 18-19 depend, Ground 8 relies on the obviousness analysis of *Kim* alone or in combination with *Ishibashi*. Petition, 80. Since the Petition fails to show a reasonable likelihood that independent claims 1, 11, and 16 are unpatentable, Ground 8 also fails to show a reasonable likelihood of success.

XIII. Ground 9: Claim 10 Is Not Obvious Over Ground 7 in View of *Goss*

For claim 1, from which claim 10 depends, Ground 9 relies on the obviousness analysis of *Kim* alone or in combination with *Goss*. Petition, 86. Since the Petition

fails to show a reasonable likelihood that claim 1 is unpatentable, Ground 9 also fails to show a reasonable likelihood of success.

XIV. CONCLUSION

For the reasons set forth above, Petitioner has failed to satisfy its burden that the Challenged Claims are invalid, and the Board should confirm the patentability of the Challenged Claims.

Dated: June 28, 2024

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Certification of Word Count Under 37 C.F.R. §42.24(d)

The undersigned hereby certifies that the foregoing contains 12,443 words according to the word count of the word-processing software used to prepare the foregoing.

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