

**Case No.: IPR2023-01294
(Patent No. 8,831,664)**

Patent Owner Demonstrative Slides

January 15, 2025

Time – 12:00 pm

STA Group Exhibit 2008
Motorola Solutions Inc. v. STA Group LLC
IPR2023-01294

Demonstrative Only - Not Evidence

Summary of the '664 Patent



US008831664B2

(12) **United States Patent**
Shaffer et al.

(10) **Patent No.:** **US 8,831,664 B2**
(45) **Date of Patent:** ***Sep. 9, 2014**

(54) **SYSTEM AND METHOD FOR PROVIDING CHANNEL CONFIGURATIONS IN A COMMUNICATIONS ENVIRONMENT**

(56) **References Cited**

U.S. PATENT DOCUMENTS

(75) Inventors: **Shmuel Shaffer**, Santa Clara, CA (US);
Steven Christenson, Santa Clara, CA
(US)

(Continued)

(73) Assignee: **Cisco Technology, Inc.**, San Jose, CA
(US)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 470 days.

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(Continued)

This patent is subject to a terminal disclaimer.

OTHER PUBLICATIONS

U.S. Appl. No. 12/722,389, entitled "System and Method for Providing Data Channel Management in a Network Environment," filed Mar. 11, 2010; Inventors: Shmuel Shaffer, et al.

(21) Appl. No.: 13/210,967

(22) Filed: **Aug. 16, 2011**

(65) **Prior Publication Data**

US 2011/0299404 A1 Dec. 8, 2011

Primary Examiner — Lam T Mai

(74) *Attorney, Agent, or Firm* — Patent Capital Group

Related U.S. Application Data

(63) Continuation of application No. 12/340,417, filed on Dec. 19, 2008, now Pat. No. 8,041,378.

(57) **ABSTRACT**

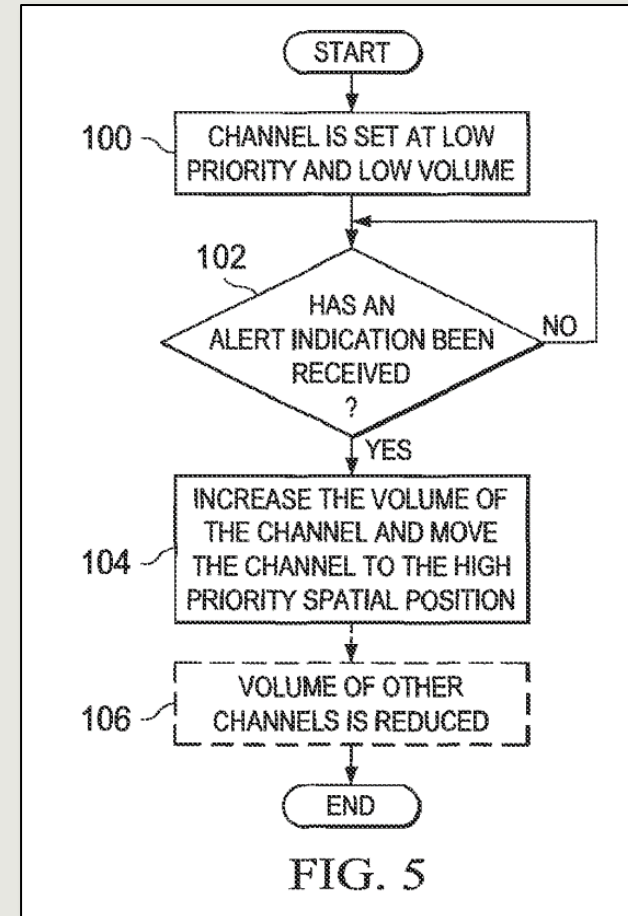
(51) **Int. Cl.**
H04W 4/22 (2009.01)
H04H 20/59 (2008.01)
H04W 84/08 (2009.01)

A method is provided in one example embodiment and includes monitoring media streams associated with channels in a communication environment. The method also includes receiving an alert in one of the media streams and elevating a priority associated with the media stream receiving the alert. Elevating the priority can include increasing the volume of the media stream receiving the alert, changing a spatial direction for rendering the media stream receiving the alert, rendering the media stream receiving the alert to a priority spatial direction, identifying a primary channel and rendering the alert message to the primary channel, turning a volume down on media streams not receiving the alert, or a combination thereof.

(52) U.S. Cl.
CPC H04H 20/59 (2013.01); H04W 84/08
(2013.01)
USPC 455/521; 370/331; 370/465; 370/266;
370/270; 709/204; 709/227; 709/239; 709/224;
709/206; 709/223

(58) **Field of Classification Search**
USPC 455/521; 370/331, 465, 266, 270;
709/204, 227, 239, 224, 206, 223
See application file for complete search history.

20 Claims, 5 Drawing Sheets



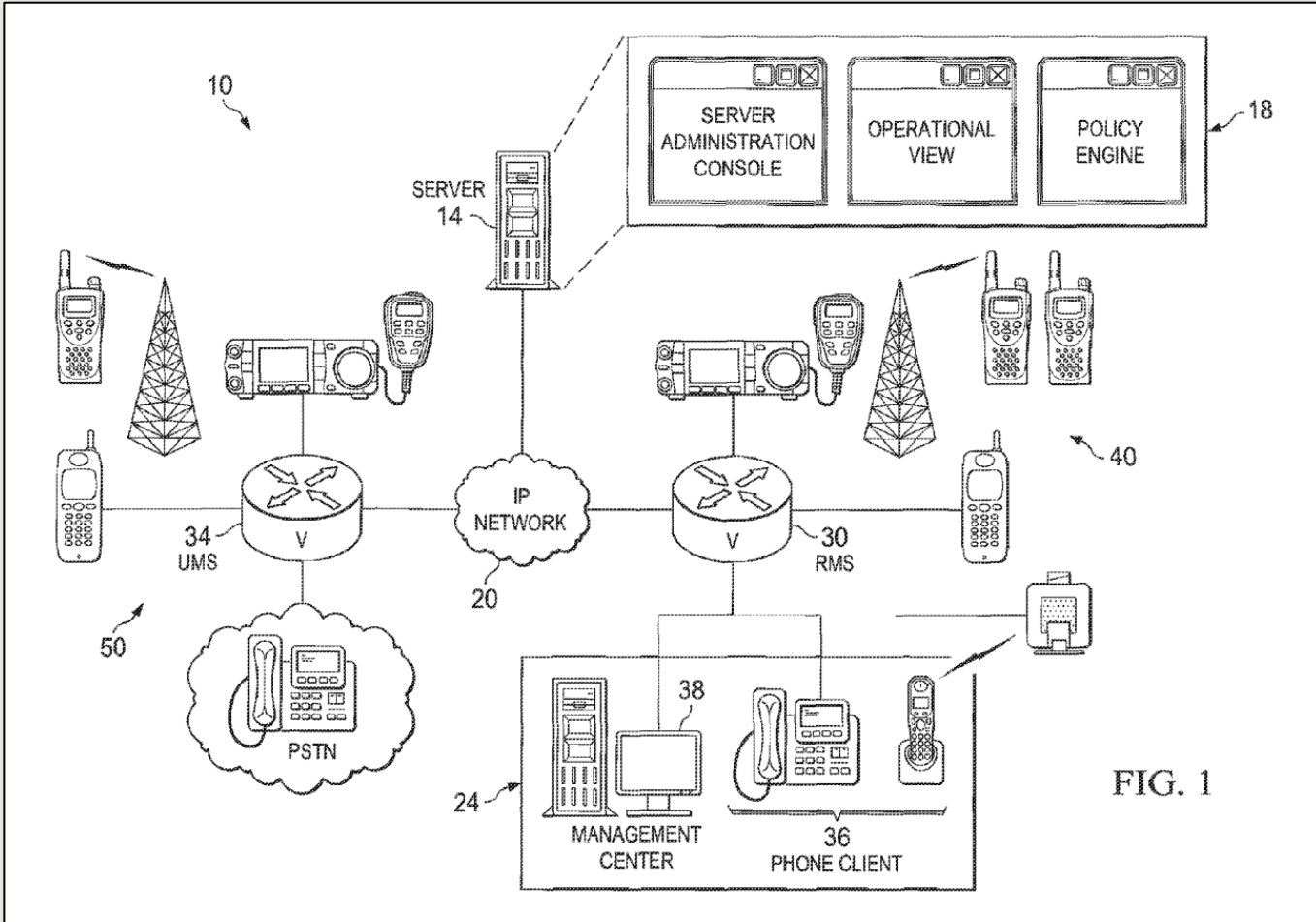
Ex. 1001 ('664 Patent), Fig. 5; POR, 9

Summary of the '664 Patent

(57) **ABSTRACT**

A method is provided in one example embodiment and includes monitoring media streams associated with channels in a communication environment. The method also includes receiving an alert in one of the media streams and elevating a priority associated with the media stream receiving the alert. Elevating the priority can include increasing the volume of the media stream receiving the alert, changing a spatial direction for rendering the media stream receiving the alert, rendering the media stream receiving the alert to a priority spatial direction, identifying a primary channel and rendering the alert message to the primary channel, turning a volume down on media streams not receiving the alert, or a combination thereof.

Ex. 1001 ('664 Patent), abstract; POR, 4-9



Ex. 1001 ('664 Patent), Fig. 1; POR, 7

Ground No. 1
***Downs* in view of *EDACS* – Section 103**

Overview of Downs

United States Patent [19]
Downs et al.

[11] **Patent Number:** 5,754,960
[45] **Date of Patent:** May 19, 1998



[54] **DISPLAY CONSOLE AND USER INTERFACE FOR MULTISITE RF TRUNKED SYSTEM**

[75] Inventors: **Stephen R. Downs; Charles P. Brame,** both of Forest; **Satish Kappagantula,** Lynchburg, all of Va.

[73] Assignee: **Ericsson Inc.,** Research Triangle Park, N.C.

[21] Appl. No.: **835,689**

[22] Filed: **Feb. 14, 1992**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 825,689, Feb. 22, 1991, Pat. No. 5,200,954.

[51] Int. CL.⁵ **H04B 7/00**

[52] U.S. CL. **455/508; 455/520; 381/123; 379/267**

[58] **Field of Search** 455/15, 33.1, 53.1, 455/54.1; 379/59, 63, 203, 204, 267, 142; 340/721, 712; 381/123

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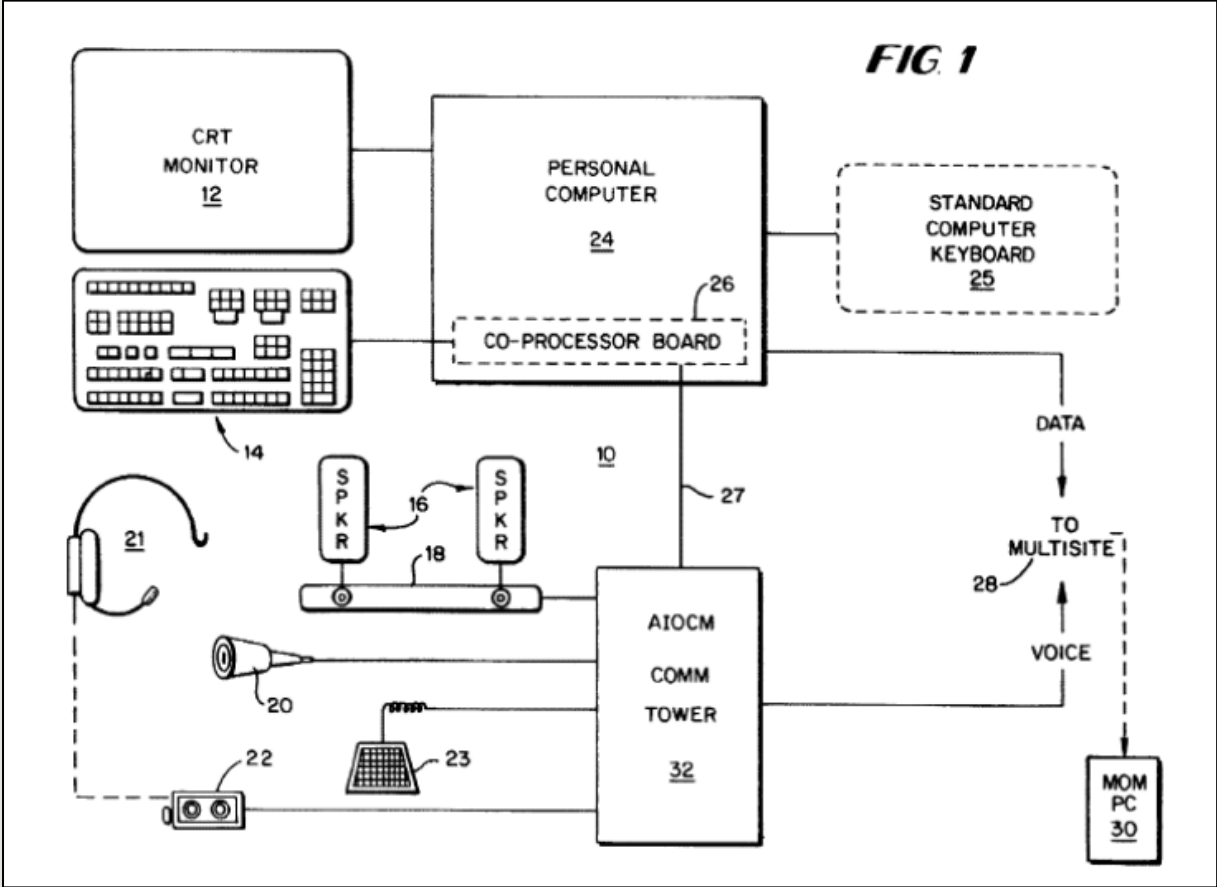
(List continued on next page.)

Primary Examiner—Edward F. Urban
Attorney, Agent, or Firm—Nixon & Vanderhye P.C.

[57] **ABSTRACT**

A dispatcher console for use in a digitally trunked, multisite public service radio system. The dispatcher console comprises a personal computer having a co-processor logic board, an audio switching tower, and user I/Os including a customized keyboard, display screen, audio speakers, headset and a transmit foot pedal. The switching tower routes audio communications between the console and multisite switch. The tower is controlled by and connected directly to the co-processor board. The customized keyboard is also connected directly to the co-processor board and has dedicated keys for commonly performed functions. The display screen presents information in a standard format such that the dispatcher knows precisely where to find particular information.

9 Claims, 9 Drawing Sheets



Ex. 1004 (Downs), Fig. 1; POR, 12

Ex. 1004 (Downs), cover; POR, 11-14

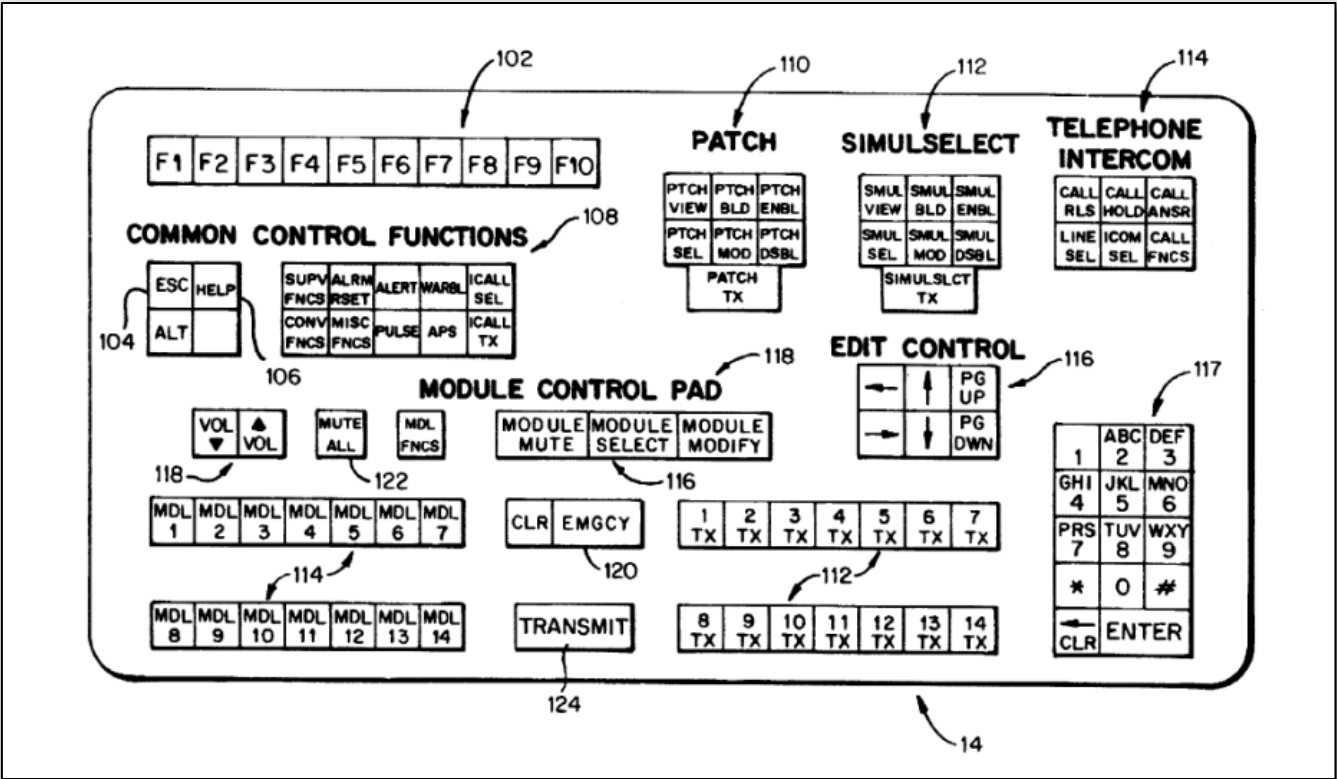
Overview of Downs

[57]

ABSTRACT

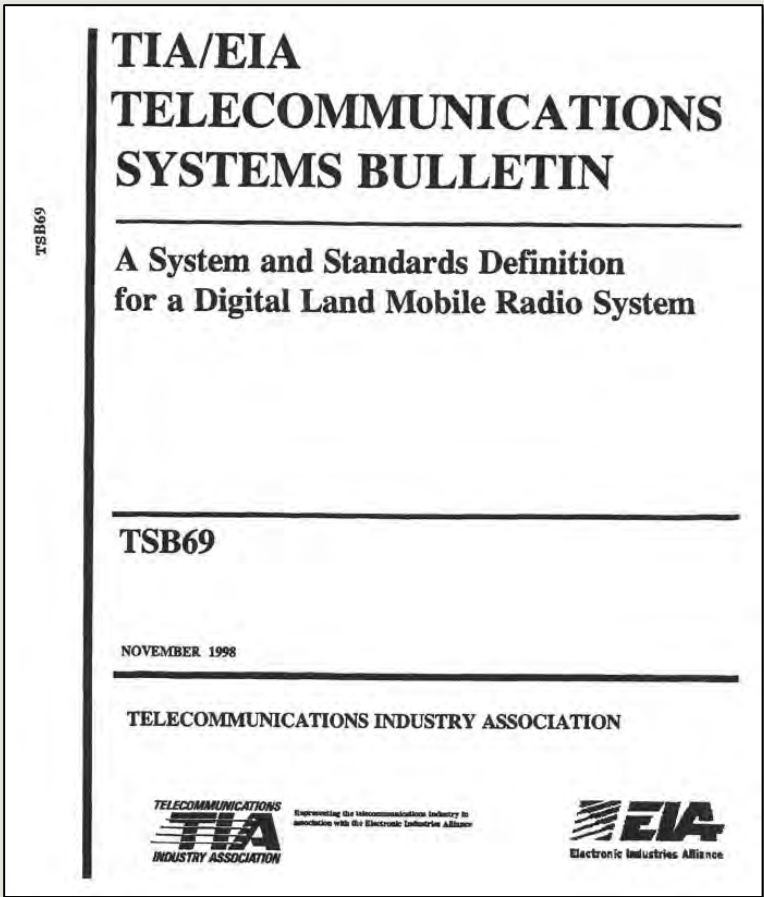
A dispatcher console for use in a digitally trunked, multisite public service radio system. The dispatcher console comprises a personal computer having a co-processor logic board, an audio switching tower, and user I/Os including a customized keyboard, display screen, audio speakers, headset and a transmit foot pedal. The switching tower routes audio communications between the console and multisite switch. The tower is controlled by and connected directly to the co-processor board. The customized keyboard is also connected directly to the co-processor board and has dedicated keys for commonly performed functions. The display screen presents information in a standard format such that the dispatcher knows precisely where to find particular information.

Ex. 1004 (Downs), abstract; POR, 11-14

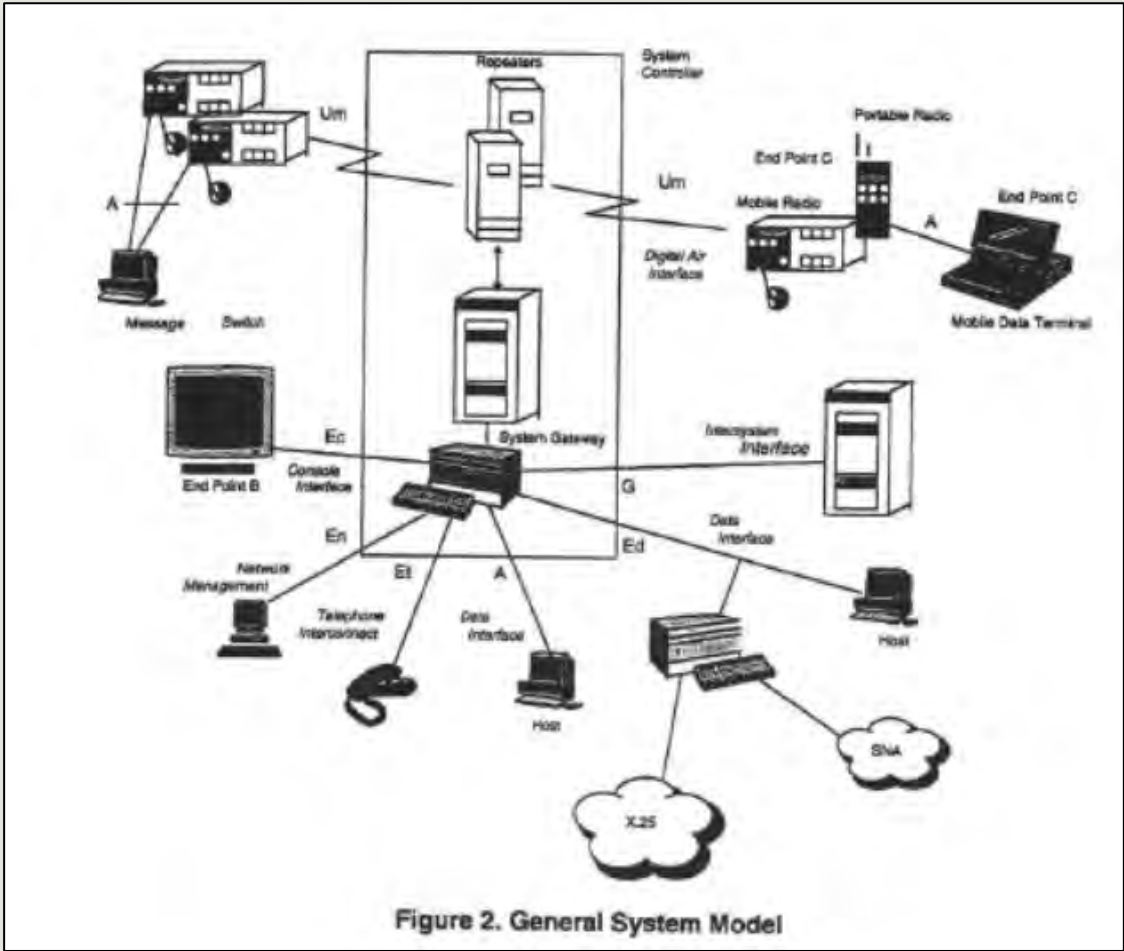


Ex. 1004 (Downs), Fig. 6; POR, 13

Overview of EDACS



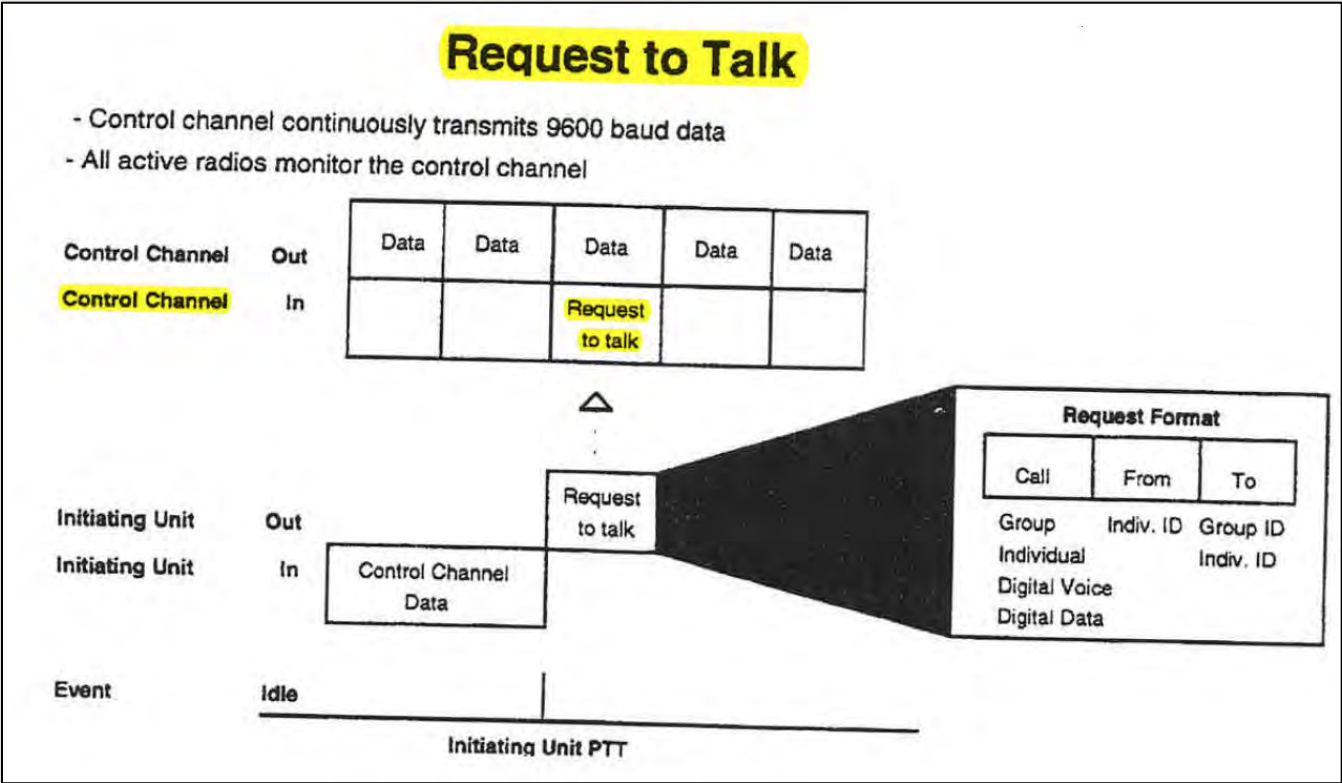
Ex. 1005 (EDACS), 1; POR, 14-19



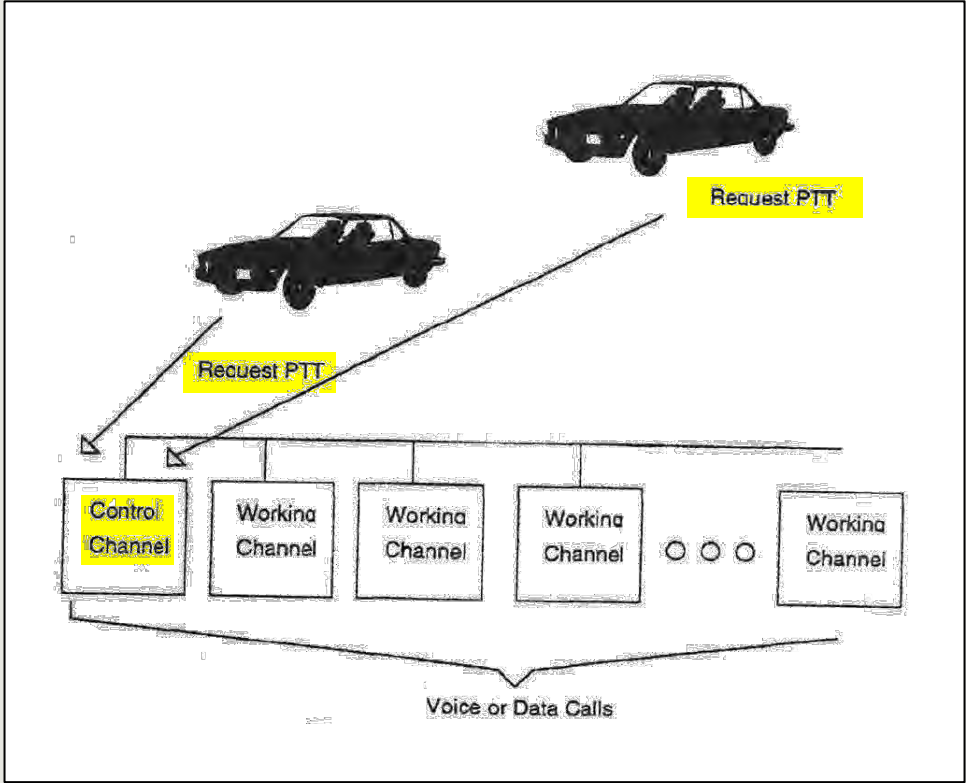
Ex. 1005 (EDACS), 14, Fig. 2; POR, 15

Overview of EDACS

- EDACS’s “alert” is merely the Request To Talk or Push to Talk (PTT)



Ex. 1005 (EDACS), 62, Fig. 9; POR, 16



Ex. 1005 (EDACS), 61, Fig. 8; POR, 17

***EDACS* Does Not Disclose or Render Obvious “monitoring media streams associated with channels in a communication environment” and then “receiving an alert in one of the media streams”**

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

- As acknowledged in the Petition, *Downs* does not disclose this limitation
- Petitioner relies on *EDACS* to disclose this limitation, however, *EDACS* fails to remedy the deficiency of *Downs*

One purpose of *Downs* is to ensure that dispatchers are “free to concentrate on the substance of the [received] calls, any one of which may be an emergency call.” Ex[1004], 2:44-46. *Downs*, however, does not explicitly disclose how its system determines a call is an emergency call. Ex[1002], ¶¶154-156. *Downs*+*EDACS* discloses this information. *Id.*, 2:62-3:32; Ex[1015], Title; Ex[1002], ¶¶154-156.

Petition, 30-31; *PO-SR*, 7

The Petition’s conclusion that *EDACS* discloses the claimed invention is based on single conclusory statements made by Mr. Williams that lack merit when looking at the *EDACS* reference as a whole. *Petition*, 31. Instead, if the *EDACS* reference were read as a whole in light of the Claim Construction order, a POSITA would know that *EDACS* control channel is not a media stream and is instead just a channel to allow radios to transmit system messages rather than audio and/or visual data.

Ex. 2005 (Shaffer Declaration), ¶98; *POR*, 7

- The challenged claims require monitoring of the audio and/or video in a media stream **before** an alert is received in the media stream

1. A method, comprising:
monitoring media streams associated with channels in a communication environment;
receiving an alert in one of the media streams; and
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 ('664 Patent), claim 1; PO-SR, 12

Order of steps	The steps of the claim must be performed in the recited order.
'664 Patent: Claim 1	

Ex. 2004 (Claim Construction Order), 16; PO-SR, 12

- Petitioner improperly bases the arguments on a new definition of “media stream” and ignore the court’s definition

EX1042, 217:7-219:12. The italicized language, which PO ignores, permits the “media stream” to include associated control data, not merely “audio or visual data.” POR, 29; EX1042, 217:7-219:12.

Reply, 3; PO-SR, 7

2. Court’s Construction

For the reasons set forth above, the Court construes the term “**media stream[s]**” to mean “**audio or video or both, which may include associated data.**”

Ex. 2004 (Claim Construction Order), 42; PO-SR, 8

- Petitioner improperly bases the arguments on a new definition of “media stream” and ignores the District Court’s construction

PO’s expert and the ’664 patent’s specification, a POSITA would understand that control and working channels used together to receive an alert and communicate associated audio, teach the claimed “media stream.” EX1042, 183:18-188:9, 190:20-192:5, 216:14-217:2; EX1037, 37:9-38:8, 266:1-9.

Reply, 2; PO-SR, 12

2. Court’s Construction

For the reasons set forth above, the Court construes the term “media stream[s]” to mean “audio or video or both, which may include associated data.”

Ex. 2004 (Claim Construction Order), 42; POR, 42

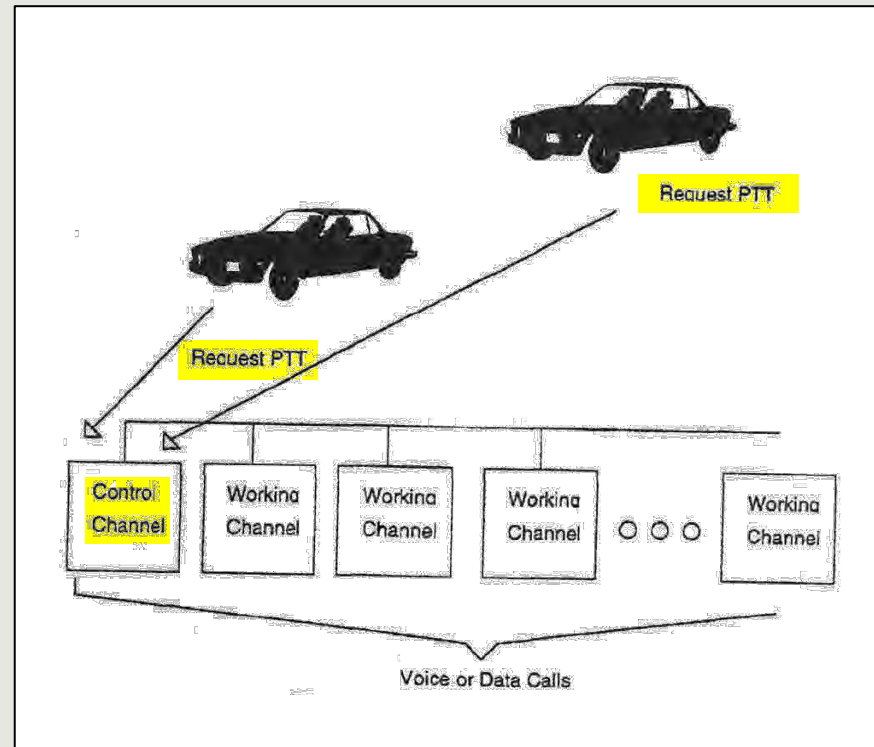
- Contrary to Petitioner’s assertion, STA does not concede that *EDACS* monitors “media streams”

There's a big difference between alerts sent before media is there, and after media is there. So if you send the alert when there is no media, okay, then you cannot monitor media stream because there's nothing to monitor.

Ex. 1042 (Shaffer Deposition Transcript), 221:17-22

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

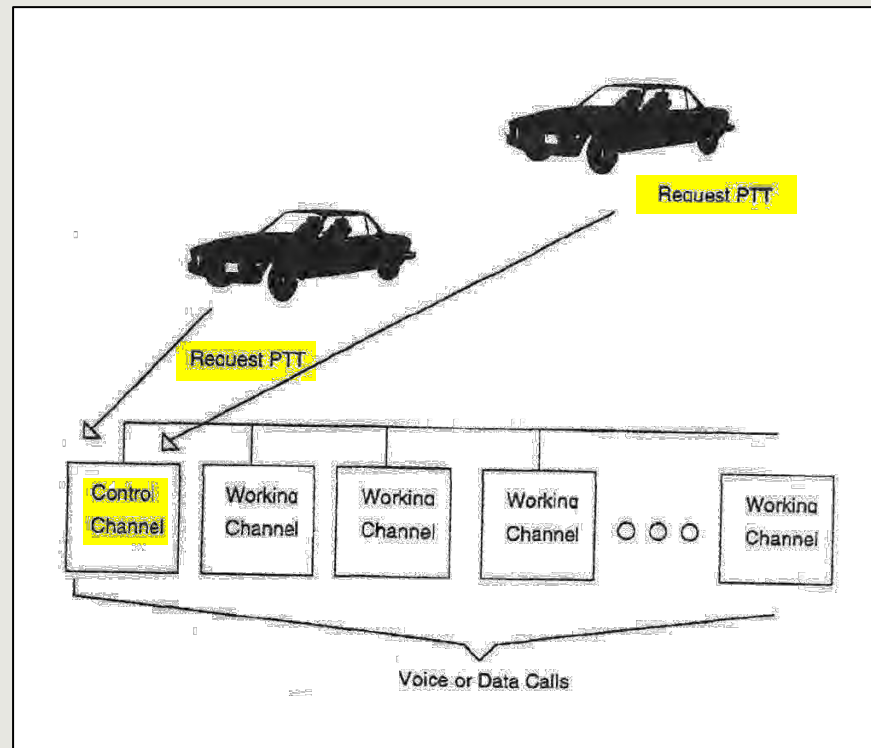
- Even if *EDACS* control and working channels are combined (as Petitioner alleges), *EDACS* discloses that PTT requests are transmitted before a media stream is created



Ex. 1005 (*EDACS*), 61, Fig. 8; PO-SR, 9

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

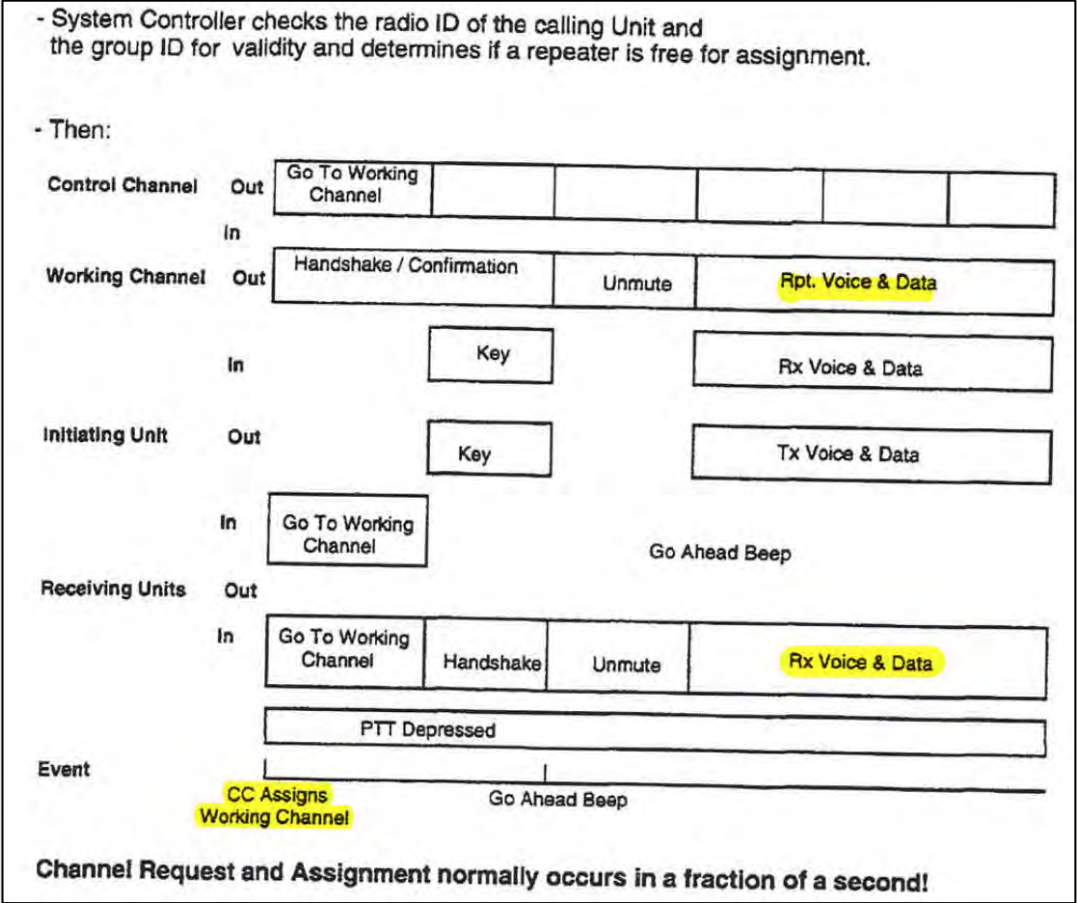
- For example, emergency call requests in *EDACS* begin on an inbound control channel and inform the system of the individual ID, call type, and the nature of the call to the individual of group – *before a call is established* between endpoints where audio/video can be transmitted



Ex. 1005 (*EDACS*), 61, Fig. 8; PO-SR, 9

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

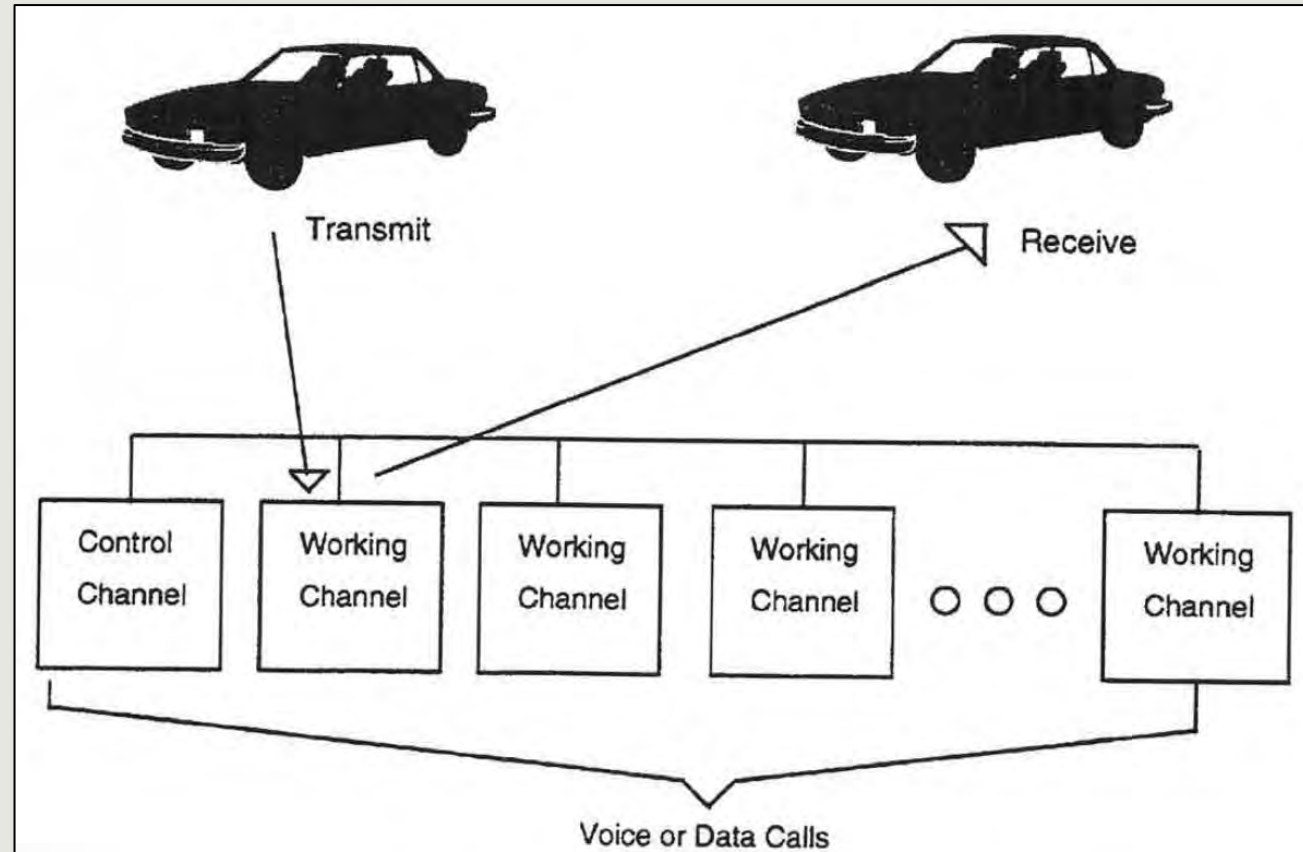
- EDACS uses the PTT as a trigger for setting up a call, which is established on an open working channel after the PTT is received



Ex. 1005 (EDACS), 65, Fig. 12; PO-SR, 9

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

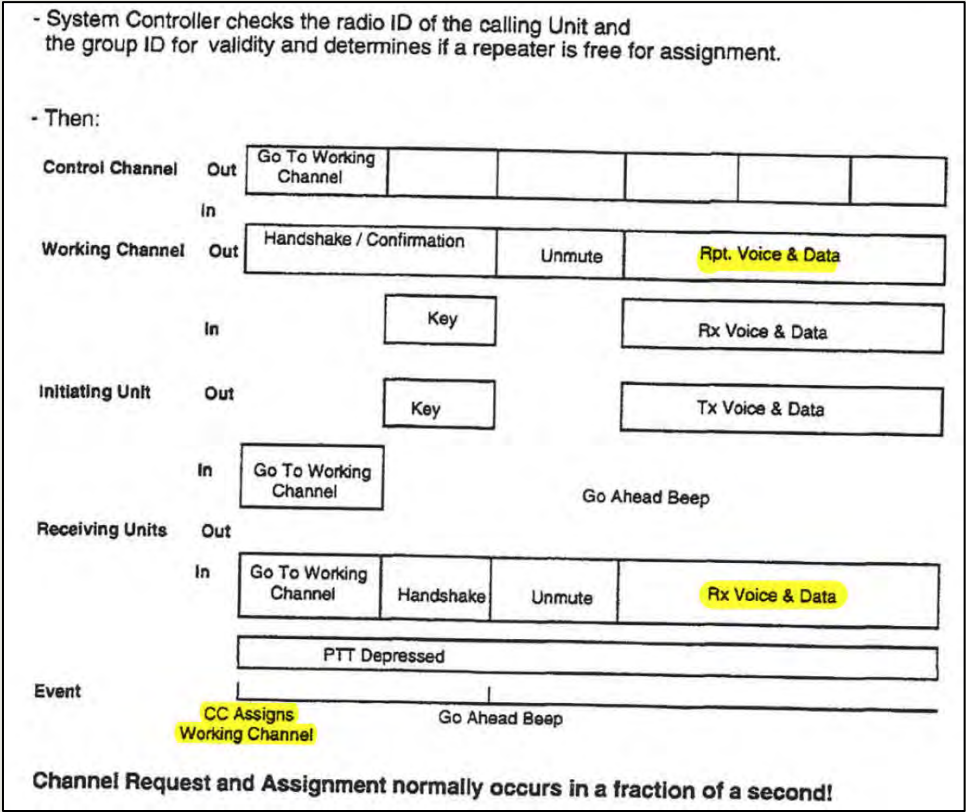
- Finally, after the working channel is opened, *EDACS* then discloses that the mobile radios are then able to communicate (via audio and/or video) with one another on the working channel



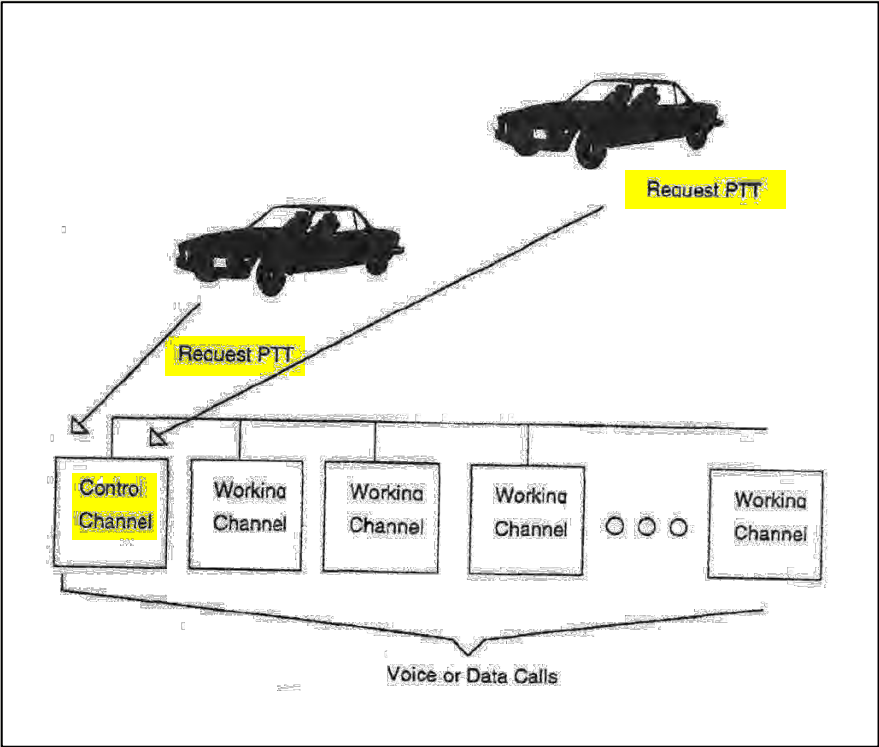
Ex. 1005 (*EDACS*), 64, Fig. 11; PO-SR, 9

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

- EDACS discloses *the PTT* (received through a repeater control channel) *does not include audio or video*, as required



Ex. 1005 (EDACS), 65, Fig. 12; POR, 26



Ex. 1005 (EDACS), 25, 50, 61, Fig. 8; POR, 26-27

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

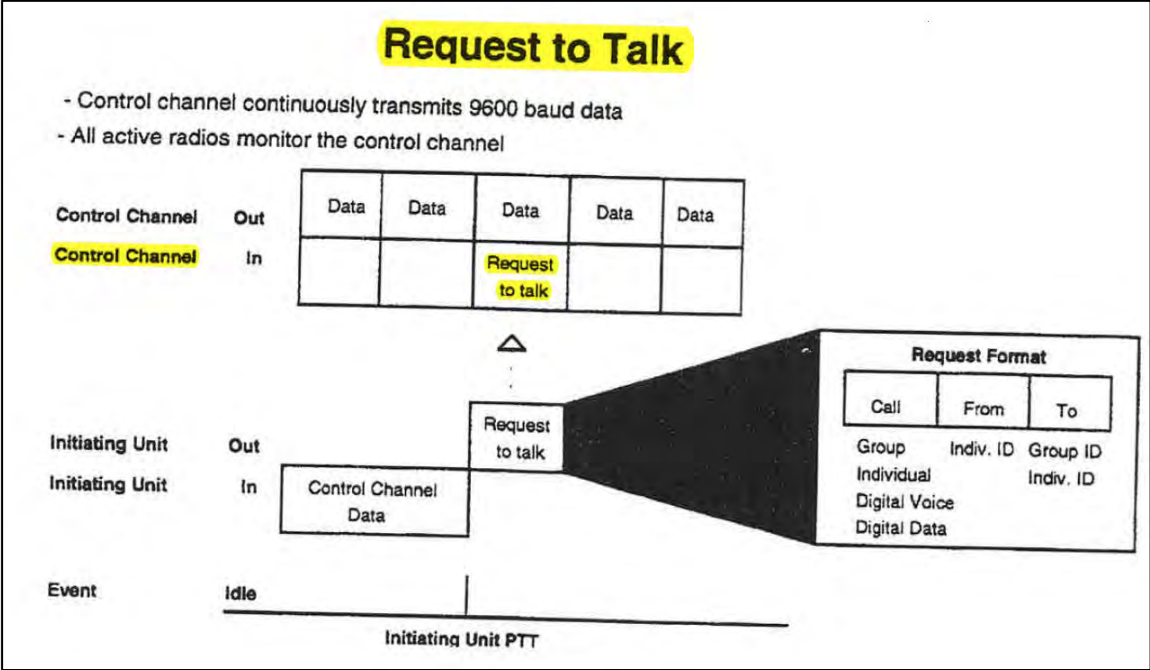
- The PTT received over the control channel simply requests that the *EDACS* system provide a working channel for an emergency group call

4.5.2.1.2 Emergency Group Call

An emergency call is initiated by pressing the emergency button on the radio. Once initiated, the radio immediately transmits the emergency call request on the inbound control channel. The system receives the request and assigns the emergency call to a free channel. If all channels are busy, the request is placed at the 'top of the queue,' where it will be assigned the first available channel. Even on heavily loaded systems, emergency calls are handled quickly and efficiently.

Working Channel

All repeater channels except the single control channel operate as working channels. Radios intercommunicate, either encryption, mutual aid, analog voice, digital voice or digital data, through a working channel.



EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

- Dr. Shaffer agrees that *EDACS* does not monitor audio or video; *EDACS* only monitors for data through call requests

In furtherance to the above, the District Court has defined media stream to include “audio or visual [data] or both” as a requirement for something to be a media stream. Ex. 2004, 42. The control channel does not carry audio or visual data as described in the glossary of *EDACS*. Ex. 1005, 50 (“system control information is continually transmitted and channel request/status information” is what is transmitted on the control channel). Since the control channel only transmits information related to channel requests and status information, this is not audio or visual data and is instead channel identifier information.

Ex. 2005 (Shaffer Declaration), ¶197; POR, 28

The Petition’s conclusion that *EDACS* discloses the claimed invention is based on single conclusory statements made by Mr. Williams that lack merit when looking at the *EDACS* reference as a whole. Petition, 31. Instead, if the *EDACS* reference were read as a whole in light of the Claim Construction order, a POSITA would know that *EDACS* control channel is not a media stream and is instead just a channel to allow radios to transmit system messages rather than audio and/or visual data.

Ex. 2005 (Shaffer Declaration), ¶198; POR, 28

- **The Petitioner itself recognized this clear deficiency in *EDACS***

⁵ To 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. *See infra* §VII.B.2.

Petition, 30; POR, 28

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

- The claimed “alert” is mischaracterized in the petition
- EDACS monitors and receives an emergency call request (data) on the control channel
- The control channel does not transmit audio and/or video (required for the claimed media stream)

Mr. Williams alleges that the alert in EDACS is sent as a coupled message with the call. Ex. 2006, 43:19-23. This is not a correct characterization of EDACS as the alert is not the same thing as the call. If a call was the alert, then there would not be a reason to distinguish the call from a call request sent over the control channel to then have the call placed into the working channel. In other words, the call request is made before a call is established in EDACS as some call requests may be denied and never reach transmissions to be an actual call. EDACS discloses that a call request is sent over the control channel, then the call is placed into the working channel by the system in response to the request. Ex. 1005, 25. Since the call and call request are not indicated as being the same and are treated differently within the well-established EDACS standard, then they cannot be on the same media stream.

A POSITA would understand that by the representations of EDACS describing the call and call request being separate, then the two are not constituted as the same bundle. This notion is further elaborated when taken into context that the control channel is not meant to transmit audio and video data. Ex. 1005, 50. Trying to transmit communicable data over the control channel would simply frustrate the purpose of the control channel and would amount to no efficient transmission of messages across the control channel entirely.

Ex. 2005 (Shaffer Declaration), ¶196; POR, 29

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

- **EDACS emergency call request begins transmission after pushing a PPT emergency button, with the request being made on the control channel**
- **The control channel does not behave like the working channels**

4.5.2.1.2 Emergency Group Call

An emergency call is initiated by pressing the emergency button on the radio. Once initiated, the radio immediately transmits the emergency call request on the inbound control channel. The system receives the request and assigns the emergency call to a free channel. If all channels are busy, the request is placed at the 'top of the queue,' where it will be assigned the first available channel. Even on heavily loaded systems, emergency calls are handled quickly and efficiently.

During typical system operation, group calls are transmission trunked, while emergency group calls are message trunked. Transmission trunking means that a working channel is assigned for the duration of a caller's transmission. Upon the caller's un-key, the system immediately de-allocates the channel and makes it available for reassignment. This is equivalent to zero-second hang time. Transmission trunking for normal traffic increases system efficiency (reference section 4.5.5.1). Message trunking, on the other hand, means a channel is assigned for the duration of the conversation, or emergency (reference section 4.5.5.2).

Only the dispatcher or a radio with supervisory status can clear the group from emergency status.

This service is accessible at reference points B and C.

Ex. 1005 (EDACS), 25; POR, 29

Control Channel

The repeater channel on which system control information is continually transmitted and channel request/status information is received from the field radio units. Any one repeater channel may serve as the control channel. The field radios monitor the control channel when not active on a working channel.

Working Channel

All repeater channels except the single control channel operate as working channels. Radios intercommunicate, either encryption, mutual aid, analog voice, digital voice or digital data, through a working channel.

Ex. 1005 (EDACS), 57, 50; POR, 29-30

EDACS Does Not Disclose or Render Obvious “monitoring..” and then “receiving...”

- The control channel is not transmitting a media stream, thus, **the PTT request in *EDACS* is not received in a media stream**

In addition to the above with *EDACS*' control channel not being a media stream, *EDACS* does not disclose any elevation of priority associated with a media stream that conveys the alert. The plain reading of the claims of the '664 Patent require that the media stream which conveys the alert should be the same media stream that is elevated. As an initial matter, since *EDACS* does not receive an alert in a media stream, then it follows that there cannot be an elevation of a media stream that does not exist. As such, a POSITA would understand that since *EDACS* does not disclose an alert in a media stream, then there cannot be an elevation of a media stream that receives the alert.

Ex. 2005 (Shaffer Declaration), ¶102; POR, 29

**The Out-of-Band Signaling from the Specification of the '664 Patent
does not Support Petitioner's Reliance on *EDACS***

- Petitioner ignores that the out-of-band signaling encompasses an embodiment in which audio and/or video is also transmitted with the out-of-band signaling

Turning to a particular component that may be entrusted with some of these response obligations, the UMS is the component that receives the audio streams in the architecture in certain embodiments of the present invention. It is not necessarily the only component that receives this audio information. The UMS can also receive out-of-band messages, and it too can have information regarding who is registered and who is listening to messages in the architecture. The UMS can

Ex. 1001 ('664 Patent), 5:15-22; PO-SR, 10-11

- The specification of the '664 Patent discloses multiple embodiments for monitoring media streams and receiving an alert in one of the media streams

In other scenarios, management center 38 is monitoring all of the received media streams, where it can detect that media should be rendered to an active channel whose volume was set below a given threshold, and then assumes that the alert may have to be duplicated or a volume adjustment should be made. One reaction to this scenario would be to increase the volume of the channel where the tone is played and relatively decrease the volume of chatter on other channels. Please note that teachings of the present invention do not solely accommodate alert tones. Such an architecture can also handle events, where the priority of a given channel is elevated by the dispatcher, or when a dispatcher adds a high priority virtual talk group (VTG) to the channel. Note that the priority of the channel is elevated not only for the alert tone, but also for the following media stream. This is done by increasing the volume of the said channel and by moving it to the priority direction, e.g., right ear.

- The specification of the '664 Patent discloses multiple embodiments for monitoring media streams and receiving an alert in one of the media streams

In other embodiments, a resource management server (capable of processing media services) can coordinate an effective response that includes either an audio tone or a message being sent out-of-band. This server could be UMS 34 or RMS 30. For the out-of-band signaling, the identification of the alert is provided in the header of a packet, in the payload of the packet, in control packets, or in any other suitable location. Furthermore, this out-of-band signaling is sent to management center 38, which can assist in processing this data. Management center 38 promptly identifies the information included in these packets. In the case of out-of-band signaling, if an end user has stepped out (for whatever reason), because the specific channel has been moved, the actions taken by the system in response to the alert could signify to him what has occurred while he was away.

The Out-of-Band Signaling from the '664 Patent does not Support Petitioner's Reliance on *EDACS*

- Petitioner overlooks critical differences between the out-of-band signaling disclosed in the '664 Patent and *EDACS*
 - The ***out of band signaling in the '644 Patent occurs through the intermediate server*** receiving audio streams
 - *EDACS* is ***silent*** about alerts being provided during calls when audio/video is transmitted

Turning to a particular component that may be entrusted with some of these response obligations, the UMS is the component that receives the audio streams in the architecture in certain embodiments of the present invention. It is not

Ex. 1001 ('664 Patent), 5:15-18; PO-SR, 13

alert came on the VHF non-high priority channel. This alert message may or may not have been heard by other officers, or, because the volume on that specific channel may have been turned down, the officer may not hear the following communication on the low priority VHF channel.

Ex. 1001 ('664 Patent), 3:51-55; PO-SR, 13

The Out-of-Band Signaling from the '664 Patent does not Support Petitioner's Reliance on *EDACS*

- The '664 embodiments show the alerts are provided in conjunction with audio and/or video
- In contrast, *EDACS* receives PTT requests as a trigger to then enable audio and/or video communications – there are no media streams monitored

7.1 Request

- 1) All mobiles and portables are monitoring the control channel.
- 2) The call originating unit presses the PTT button and sends the inbound request onto the control channel.
- 3) The inbound message includes:
 - Who am I (from) Individual ID,
 - What call type and communication mode:
 - Group, Individual, Telephone, Data, Digital,
 - Who am I Calling (to): Individual, Group
- 4) The control channel receives the message.

A representation of this process is shown in the following figure.

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

- Even if *EDACS* is construed to encompass a media stream, ***EDACS* still fails to disclose elevating a priority associated with a media stream**

1. A method, comprising:
monitoring media streams associated with channels in a communication environment;
receiving an alert in one of the media streams; and
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 ('664 Patent), claim 1; POR, 31

106. A POSITA understands that the claims of the '664 Patent require an elevation of a priority to occur to the same media stream that the alert was received on.
Ex. 1001, cl. 1. Anything else would not fit the limitations of the claims.

Petitioner's erroneous assertions that a pre-assignment of a call type to have priority over other calls is misplaced and contrary to the plain reading of *EDACS*. A POSITA would understand that the alleged priority assignments do not originate from a media stream and instead are pre-assigned before any alert is generated by a call request.

107. As such, a POSITA would understand that *EDACS* does not render obvious the claims of the '664 Patent.

Ex. 2005 (Shaffer Declaration), ¶¶106-107; POR, 32-33

- **EDACS does not disclose a media stream, which must include “audio or video,” until *after* the working channel is allocated**

4.5.2.1.2 Emergency Group Call

An emergency call is initiated by pressing the emergency button on the radio. Once initiated, the radio immediately transmits the emergency call request on the inbound control channel. The system receives the request and assigns the emergency call to a free channel. If all channels are busy, the request is placed at the 'top of the queue,' where it will be assigned the first available channel. Even on heavily loaded systems, emergency calls are handled quickly and efficiently.

During typical system operation, group calls are transmission trunked, while emergency group calls are message trunked. Transmission trunking means that a working channel is assigned for the duration of a caller's transmission. Upon the caller's un-key, the system immediately de-allocates the channel and makes it available for reassignment. This is equivalent to zero-second hang time. Transmission trunking for normal traffic increases system efficiency (reference section 4.5.5.1). Message trunking, on the other hand, means a channel is assigned for the duration of the conversation, or emergency (reference section 4.5.5.2).

Only the dispatcher or a radio with supervisory status can clear the group from emergency status.

This service is accessible at reference points B and C.

Ex. 1005 (EDACS), 25; POR, 32

106. A POSITA understands that the claims of the '664 Patent require an elevation of a priority to occur to the same media stream that the alert was received on.

Ex. 1001, cl. 1. Anything else would not fit the limitations of the claims.

Petitioner's erroneous assertions that a pre-assignment of a call type to have priority over other calls is misplaced and contrary to the plain reading of

EDACS. A POSITA would understand that the alleged priority assignments

do not originate from a media stream and instead are pre-assigned before any

alert is generated by a call request.

107. As such, a POSITA would understand that *EDACS* does not render obvious the claims of the '664 Patent.

Ex. 2005 (Shaffer Declaration), ¶¶106-107; POR, 32

- **EDACS’ elevation in priority occurs before the media stream is created on a working channel, i.e., before voice is transmitted**

In plain contrast to the meaning of *EDACS*, the Petition attempts to cherry pick the word “priority” to fit the narrative of their argument. Petition, 34. Again the Petitioner and Mr. Williams are mistaken. The context for the quote “[t]he system automatically assigns the highest priority to the talk group” is not an actual priority assigned to an alert being received on the control channel. Instead, the full context of this quote is better characterized as meaning the priority of the talk group is pre-assigned to the emergency calls since these should take highest priority in the system. Ex. 1005, 31. *EDACS*

Ex. 2005 (Shaffer Declaration), ¶105; POR, 32-33

explains that the priority within the system should give “higher priority” to calls with greater ranking of importance such as those of a life-threatening situation. *Id.* In doing so, *EDACS* pre-assigned this priority listing if two calls come in at the same time, then the emergency call request should be assigned first to a working channel. *Id.* This assures that police and other first responders faced with a life-threatening situation are able to establish communication on a working channel before other non-life threatening communications in the system. *Id.*

Ex. 2005 (Shaffer Declaration), ¶105; POR, 32-33

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

- **The media stream terminates at the *Downs* dispatcher console, so the associated media stream is unaffected by any local priority elevation**

1. A method, comprising:
monitoring media streams associated with channels in a communication environment;
receiving an alert in one of the media streams; and
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 ('664 Patent), claim 1; POR, 34

As shown in FIG. 2 the dispatcher monitor display screen 12 is divided into window segments. These segments provide discrete work areas on the screen. The segments include an entity listing 40, a page listing 42, communications modules 44, status/prompts/messages 46, clock 48, help/call type/menus 50, and call history 52. These segments display information in an organized and regular fashion to the dispatcher.

The arrangement of these segments on the screen does not change. However, the information presented in each window segment does change. Thus, the dispatcher can become familiar and comfortable with the arrangement of the segments on the screen. This familiarity allows the dispatcher to pick out desired information quickly from individual windows because the dispatcher learns precisely where this information is displayed by knowing the location of each segment.

Ex. 1004 (Downs), 5:60-6:9; POR, 34

- **Downs** discloses an endpoint device where the dispatcher chooses the display of the dispatch console

Q. So it's your opinion that the dispatch console of Downs is an endpoint, right?

A. I would say in that context, it's being used as an endpoint.

Ex. 2006 (Williams Tr.), 22:24-23:2; POR, 34

Through the use of the customized keyboard, the dispatcher can choose a particular communications module by depressing the appropriate key 114, e.g. MDL 3, to pick module 3. Once this module has been picked, then the dispatcher can adjust its volume via volume keys 118, mute the module, 116, highlight the module for the select speaker (may be headset), modify the module, 116, or establish (or clear) an emergency condition for the module 124.

Ex. 1004 (Downs), 8:41-48; POR, 34

FIG. 4 illustrates a sample dispatcher profile 84 that can be displayed on the screen. The profile presents the logical id for the dispatcher 85, volume settings 86, delay times 87 and other features of the profile. The volume levels can be set such that emergency calls are broadcast louder from the dispatcher speakers than other calls. The dispatcher profile is displayed by depressing keys on the console keyboard.

Ex. 1004 (Downs), 6:47-53; POR, 34

- **At best, *Downs* discloses adjustments made at an endpoint to the way information from a media stream is presented to the dispatcher sitting at its console**

Ex. 2004, 16. Since the Petitioners agree that the console in *Downs* is an endpoint, then any action occurring after the channel reaches the endpoint is not within the plain language of the claims. It is my opinion that on this basis, *Downs* does not render obvious the claims of the '664 Patent and a POSITA would agree that operations happening after the order of the claims is not within the meets and bounds of the claims. A POSITA would understand that the console system in *Downs* is the endpoint and the manual configurations by the dispatcher are not within the bounds of the claims of the '664 Patent.

Ex. 2005 (*Shaffer Declaration*), ¶116; POR, 35-36

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

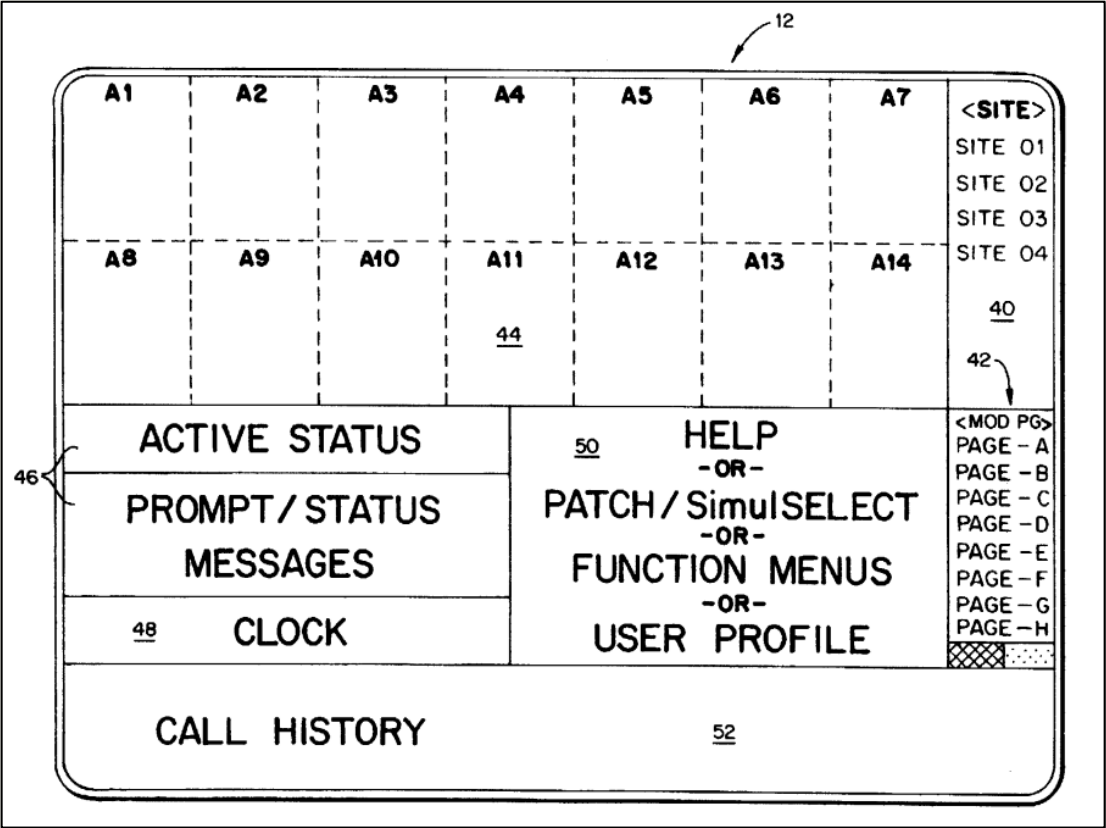
1. A method, comprising:
monitoring media streams associated with channels in a communication environment;
receiving an alert in one of the media streams; and
elevating a priority associated with the media stream receiving the alert, such that an adjustment is made to how the media stream is provisioned to an endpoint in the communication environment.

Ex. 1001 (’664 Patent), claim 1; POR, 36-38

Petition is incorrect in this assertion. According to the Petition, the dispatcher manually adjusts how the modules in the communication environment are provisioned after the call requests are received. *Id.*, 36. The Petition misstates the disclosure by cherry-picking aspects to fit their narrative. When taken as a whole, the actual context of this disclosure occurs *after* the media stream/channel reaches the endpoint of the console. Ex. 1004, 8:41-45 (“Through the use of the customized keyboard, the dispatcher can choose a particular communications module by depressing the appropriate key 114, e.g. MDL 3. to pick module 3. Once this module has been picked, then the dispatcher can adjust its volume via volume keys.”). After looking at the actual language of the disclosure, a POSITA would understand that the dispatcher affects changes happening to the module after the media stream is received at the console. Nothing in the disclosure relates to how the media stream is provisioned or affected *before* it reaches the console in *Downs*.

Ex. 2005 (Shaffer Declaration), ¶121; POR, 36-38

- **Downs** is directed to a console that receives different communication channels



Another segment 42 of the display lists the pages of communications modules 44 that can be shown. By segregating the communications modules into pages, the number of communication modules that can be displayed is drastically increased and the individual modules can be appropriately grouped by pages.

The arrangement of these segments on the screen does not change. However, the information presented in each window segment does change. Thus, the dispatcher can become familiar and comfortable with the arrangement of the segments on the screen. This familiarity allows the dispatcher to

As can be seen, the more common functions are assigned dedicated function keys include the establishing of patch 110, simulselect 112 and telephone/intercom communications 114; edit control 116 such as paging through screen displays and cursor and position control on the display; muting the console speakers 122; and emergency condition 120. A dedicated color coded key 124 sends a push-to-talk

Ex. 1004 (Downs), Fig. 2; POR, 37

Ex. 1004 (Downs), 6:13-18, 6:1-5, 8:29-35; POR, 37

- Because *Downs* is an endpoint, *Downs* only discloses receiving and using information from a media stream for display on the console

One window segment 40 provides a listing of available entities, e.g. site controllers, groups, units, consoles, conventional channels and telephone lines, in the RF system. Another segment 42 of the display lists the pages of communications modules 44 that can be shown. By segregating the communications modules into pages, the number of communication modules that can be displayed is drastically increased and the individual modules can be appropriately grouped by pages.

Communications module windows 44 are arranged conveniently in columns and rows. These modules provide call access to individual groups, entities, consoles and telephone lines in the system. Each communication module is programmed by the dispatcher to represent a particular group, unit, console, channel, line, etc., that is available to the console. To assist in programming the communications module, the available groups, units, consoles, or channels may be displayed in the listing window 40, e.g. a listing of sites.

Ex. 1004 (*Downs*), 6:10-28; POR, 37

This notion is further solidified by the Petition admitting that the dispatcher pre-sets any action that will happen to the modules displayed on the console interface. Petition, 36. This action of pre-setting emergency conditions instills that the console is merely acting as a static endpoint and the dispatcher is acting on the modules themselves. A POSITA would understand that this type of system is not the same intelligent system described and claimed by the '664 Patent.

Ex. 2005 (*Shaffer Declaration*), ¶122; POR, 37

- **Downs does not further provision the media stream to another endpoint**

The dispatcher console obtains the information needed for the call history window from command messages from the multisite switch to the dispatcher console. For example, upon receipt of a call assignment message, the console takes from the message the caller ID, callee ID, and site origination information and stores it in a circular buffer in the personal computer.

Ex. 1004 (Downs), 7:40-46; POR, 37

Through the use of the customized keyboard, the dispatcher can choose a particular communications module by depressing the appropriate key 114, e.g. MDL 3, to pick module 3. Once this module has been picked, then the dispatcher can adjust its volume via volume keys 118, mute the module, 116, highlight the module for the select speaker (may be headset), modify the module, 116, or establish (or clear) an emergency condition for the module 124.

Ex. 1004 (Downs), 8:40-48; POR, 38

volume indicator 80. The background color 81 of the module is changed to red to signify an emergency call and to green to signify the select call. The border 82 for the communications module is highlighted when the module is picked by depressing the corresponding module key 114. A picked module is then modified, muted, selected or changed in volume via keys 118 and 116.

FIG. 4 illustrates a sample dispatcher profile 84 that can be displayed on the screen. The profile presents the logical id for the dispatcher 85, volume settings 86, delay times 87 and other features of the profile. The volume levels can be set such that emergency calls are broadcast louder from the dispatcher speakers than other calls. The dispatcher profile is displayed by depressing keys on the console keyboard.

Ex. 1004 (Downs), 6:39-53; POR, 38

The Petition’s argument thus fails because the preset levels affect the channel only after the media stream is received by the dispatcher a POSITA would understand that the console system in *Downs* is not the same intelligent system devised in the ’664 Patent.

Ex. 2005 (Shaffer Declaration), ¶123; POR, 38

Ground No. 2

Downs in view of *EDACS* in further view of *Childress* – Section 103

Overview of Childress

United States Patent [19]
Childress et al.

[11] **Patent Number:** 4,905,302
[45] **Date of Patent:** Feb. 27, 1990

- [54] **TRUNKED RADIO REPEATER SYSTEM**
- [75] **Inventors:** Jeffrey S. Childress, Lynchburg; Marc A. Dissosway, Forest; Gerald M. Cooper, Gretna; Houston H. Hughes, III, Lynchburg, all of Va.
- [73] **Assignee:** General Electric Company, Lynchburg, Va.
- [21] **Appl. No.:** 56,922
- [22] **Filed:** Jun. 3, 1987
- [51] **Int. Cl.⁴** H04B 7/24; H04Q 7/04
- [52] **U.S. Cl.** 455/34; 455/38; 455/54; 455/58; 340/825.5
- [58] **Field of Search** 455/32, 34, 38, 49, 455/53, 54, 56, 58, 7, 11, 17; 340/825.48, 825.44, 825.5, 825.51; 379/58, 59, 60, 63

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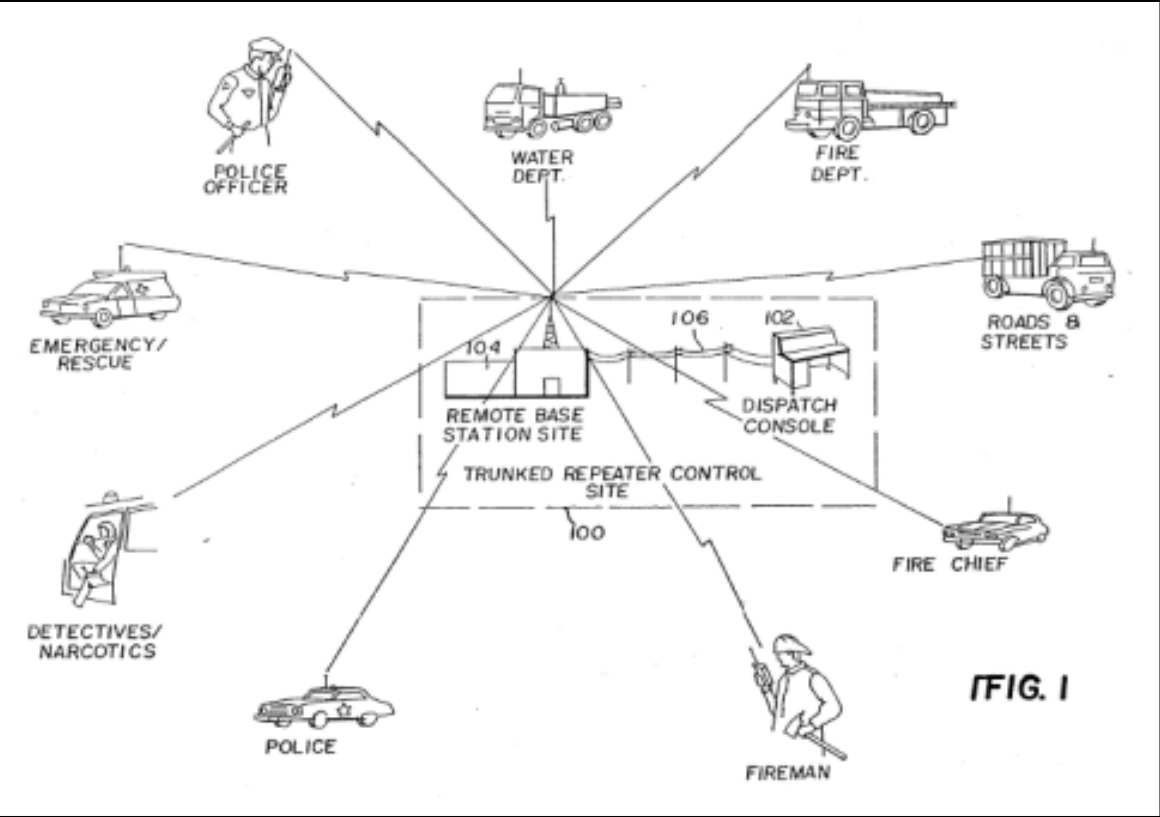
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Primary Examiner—Robert L. Griffin
Assistant Examiner—Ralph Smith
Attorney, Agent, or Firm—Nixon & Vanderhye

[57] **ABSTRACT**

A digitally trunked radio repeater system provides substantial improvements in timeliness of channel acquisition and channel drop, and in reliability of critical control signalling. The system uses a much higher digital signalling rate than is typically found in prior art systems, and uses a control channel to convey digital channel request and assignment messages between the central site and mobile transceivers. The mobile radio transceivers transmit channel requests on the control channel (if no response is received, the mobile retries during a retry time window which increases in duration in dependence on the number of retries). The mobile transceiver switches to a working channel in response to an assignment message received on the control channel. Subaudible digital signals transmitted on the control channel and on active working channels allow late entry, shifting to higher priority calls, and other advanced functions. Message and transmission trunking capabilities are both present so as to maximize working channel usage without compromising channel access for high priority communications. During transmission trunking, called and calling transceivers return to the control channel after each transmission (and called transceivers may be inhibited from transmitting) but grant higher priority to calls from the other transceivers being communicated with to ensure continuity over an entire conversation. Additional functions and fault tolerant features further increase the versatility and reliability of the system.

82 Claims, 11 Drawing Sheets



Ex. 1031 (Childress), Fig. 1; POR, 19

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

- The Petition concedes that *Downs* and *EDACS* may not actually disclose this limitation

To the extent it is found that Ground 1 does not render obvious “receiving an alert in one of the media streams” as recited in claims 1, 11 and 16—e.g., if construed to require the alert and voice data be transmitted on the same channel—this limitation is rendered obvious in further view of Childress.

Petition, 48-49

- Thus, Petitioner relies on *Childress* to disclose this limitation, however, *Childress* fails to remedy the deficiencies of *Downs* and *EDACS*

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.

POR, 41-42; Ex. 2005 (Shaffer Declaration), ¶¶130-133

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

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

- ***EDACS* already identifies and solves the alleges “challenges” that the Petition relies on for a motivation to combine *Downs* and *EDACS***

The Petition fails to provide an adequate basis to combine Ground 1 with *Childress* as *EDACS* already solves the alleged problems put forth by the Petition.

The Petition, along with Petitioner’s Expert Mr. Williams, state that combining *Childress* with the art of Ground 1 would provide “numerous efficiency and interoperability benefits.” Petition, 49. This is simply not the case. APOSITA would understand that the trunked operating communication system described in *Childress* is the same as that disclosed and implemented in *EDACS*. Since *EDACS* already describes and solves the alleged problem, then a POSITA would not look to combine these references as it would duplicative with the *EDACS* standard.

Ex. 2005 (Shaffer Declaration), ¶134-135; POR, 43

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

- ***EDACS* already identifies and solves the alleges “challenges” that the Petition relies on for a motivation to combine *Downs* and *EDACS***

EDACS describes a trunked radio system that describes how emergency messages are communicated via a repeater control channel. Ex. 1005, 25.

The emergency group call is initiated by pressing a button on a PTT radio to transmit an incoming message to the system for allocation of a working channel. *Id.* The call is then assigned to a working channel. *Id.* This is the same emergency trunking system described in *Childress*. The first request message is sent over the control channel and the system replies on the control channel with an assignment of a working channel. Ex. 1031, 13:16-42. Then, a secondary handshake occurs between the end device and the system where the second handshake takes place over the working channel. *Id.*

Ex. 2005 (Shaffer Declaration), ¶136; POR, 43

As such, the trunked system of an inbound message being received on a control channel and then assigned to a working channel is the same between the references. It is my opinion that a POSITA would not look to combine *Childress* with the references of Ground 1 as *EDACS* already performs the alleged concept of a control channel receiving an inbound call request.

Ex. 2005 (Shaffer Declaration), ¶137; POR, 43

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

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

1. A method, comprising:
monitoring media streams associated with channels in a communication environment;
receiving an alert in one of the media streams; and
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 ('664 Patent), claim 1; POR, 39

2. Court's Construction

For the reasons set forth above, the Court construes the term “media stream[s]” to mean “audio or video or both, which may include associated data.”

Ex. 2004 (Claim Construction Order), 42; POR, 39

- Similar to *EDACS*, *Childress* discloses a trunked radio system utilizing call requests that begin on a control channel

Call placement begins by the calling unit transmitting a special digital channel request signal on the dedicated control channel to the central site. In return, the central site transmits, outbound on the control channel, a special digital channel assignment signal. The calling unit then responds by switching immediately to the assigned working channel where the central site now sends an assignment confirmation message (also in high-speed digital form). If the calling unit properly receives the confirming signals on the working channel, then it responds with an acknowledgment back to the central site on the working channel to complete the second handshake (i.e., the first one was on the control channel and now one has taken place on the working channel) before the central site releases the called units to begin the requested communication session on the working chan-

Ex. 1031 (Childress), 13:15-31; POR, 40

nel. Alternatively, if during this process the calling unit receives a channel update message on the control channel addressed to it, then the channel request call is temporarily suspended (unless the channel request under way is an emergency or higher priority request) and the calling unit then reverts to the called state so as to receive the incoming call. If the calling unit receives no response (or an improperly completed response handshake sequence), it automatically waits a random period before retrying to successfully place the call request (up to a maximum of 8 tries).

Ex. 1031 (Childress), 13:31-42; POR, 40

- **The control channel receives alerts and data but does not receive audio or video**

The called unit initially resides in a standby configuration where it continually monitors the digital messages appearing on the control channel outbound from the central site. If it detects a channel assignment message addressed to it as the called party (or perhaps as one party of a called group), then the called unit immediately switches its operations onto the assigned working channel. There, it also detects the confirmation

Ex. 1031 (Childress), 13:43-50; POR, 40

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.

GROUP PRIVACY

Each group hears only his own group, unless

Ex. 1031 (Childress), 6:50-59; POR, 40

■ The Petition lacks support for this limitation

§§VII.A.2.c, VII.A.6; Ex[1002], ¶214. Childress further discloses that “all mobiles of the called group” receive an “emergency group call confirmation message” containing a “Message/Transmission Trunking” bit and a 12-bit “Group ID” on a working channel. Ex[1031], 28:42-58. Therefore, 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 along with voice data for the emergency call. Ex[1002], ¶214. Indeed, the ‘664 Patent explains that alert messages are “meant to connote any type of message or signal that was intended for one or more end users.” *Id.*, 7:41-43; Ex[1002], ¶214.

Petition, 50; *POR*, 41

D. All mobiles of the called group switch to assigned working channel and receive a confirmation message. Slotted working channel messages are transmitted using the following frame:

Dotting=32 bits

Barker=16 bits

Message=32 bits

Message (inverted)=32 bits

Message=32 bits

The emergency group call confirmation message is coded as follows:

MT Code=4 bits

Subaudible count=2 bits

Message/Transmission Trunking=1 bit

Group/Logical ID=1 bit

Group ID=12 bits

BCH=12 bits

Ex. 1031 (Childress), 28:42-58; *POR*, 41

■ The Petition lacks support for this limitation

B. Mobile that wishes to originate an emergency group call transmits an assignment request on the control channel in synchronism with the received control channel messages. The frame format is as follows:

Ex. 1031 (Childress), 28:16-19; POR, 41

C. The control channel responds with two channel-assignment messages that are coded as follows:

MT-A Code=2 bits
Type communications=2 bits
 $\frac{1}{2}$ Logical ID=6 MSBs or LSBs
Group/Logical ID=1 bit
Channel=5 bits
Group ID=12 bits
BCH Code=12 bits

Ex. 1031 (Childress), 28:33-41; POR, 41

D. All mobiles of the called group switch to assigned working channel and receive a confirmation message. Slotted working channel messages are transmitted using the following frame:

Dotting=32 bits
Barker=16 bits
Message=32 bits
Message (inverted)=32 bits
Message=32 bits

The emergency group call confirmation message is coded as follows:

MT Code=4 bits
Subaudible count=2 bits
Message/Transmission Trunking=1 bit
Group/Logical ID=1 bit
Group ID=12 bits
BCH=12 bits

Ex. 1031 (Childress), 28:42-58; POR, 41

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

- **A POSITA would understand that the claimed “alert” must originate in the media stream**

A POSITA would understand that the control channel is meant for signaling capabilities and is not meant for voice or audio communication, which is similar to EDACS' control channel. The word “alert” is mentioned only once in *Childress*. Ex. 1031, 5:26. This indication is provided over the digital control channel rather than any in-band signal that would be associated with a working channel. *Id.* The claims of the '664 Patent require that the alerts be received in a media stream. Ex. 1001, cl. 1. The assignment of a channel in *Childress* is completely at odds with the plain language of the claims in the '664 Patent. The claim language states that “an alert in one of the media streams” to be the limitation. If a media stream includes the alert, which causes an assignment of a new channel, then the assignment to the new channel is no longer within the plain meaning of the claims and outside the order of operations that should be carried out in the claims. Ex. 2004, 16 (requiring the claims to be completed in order).

In furtherance to the above, the District Court has defined media stream to include “audio or visual [data] or both” as a requirement for something to be a media stream. Ex. 2004, 42. The control channel does not carry audio or visual data as described in the glossary of *Childress*. Ex. 1031, 3:22-25. Since the control channel only transmits information related to channel requests and status information, this is not audio or visual data and is instead channel identifier information.

Ex. 2005 (Shaffer Declaration), ¶¶128, 130; POR, 41

- A POSITA would understand that the claimed “alert” must originate in the media stream

A POSITA understands that the control channel is not a media stream as the media stream is required to transmit audio and video data. As explained above, the control channel cannot be a media stream as it does not transmit audio and video data. Instead, it transmits messages for emergency requests and call requests from a mobile unit to a communication center. No disclosure in *Childress* suggests anything to the contrary. To consider *Childress*' control channel as transmitting anything else would be contrary to the teachings of the reference.

The Petition fails to render obvious the claim limitation “receiving an alert in one of the media streams” since *Childress* does not disclose an alert being received in a media stream.

Ex. 2005 (Shaffer Declaration), ¶132-133; POR, 39-42

Ground No. 3

Downs in view of *EDACS* in further view of *Hancock* – Section 103

For the same reasons as Ground 1, the dependent claims in Ground 3 are not unpatentable

Ground No. 4

Downs in view of *EDACS* in further view of *Childress* and in further view of *Hancock* – Section 103

For the same reasons as Ground 2, the dependent claims in Ground 5 are not unpatentable

Ground No. 5

Downs in view of *EDACS* in further view of *Reich* – Section 103

For the same reasons as Ground 1, the dependent claims in Ground 5 are not unpatentable

Ground No. 6

Downs in view of *EDACS* in further view of *Childress* and in further view of *Reich* – Section 103

For the same reasons as Ground 2, the dependent claims in Ground 6 are not unpatentable

Ground No. 7
***Kim* – Section 103**

Overview of Kim

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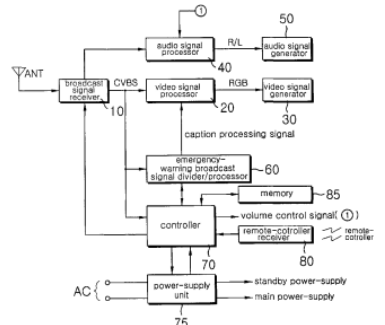
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(54) Title: TELEVISION SET AND METHOD FOR NOTIFYING A DISASTER SITUATION



(57) Abstract: An emergency broadcast television system and method for propagating an emergency broadcast signal. The method for propagating the emergency-warning broadcast signal in a television (TV) system includes steps of a) receiving a broadcast signal or broadcast data, b) detecting an emergency-warning broadcast signal or emergency-warning broadcast data being overlapped with or inserted in the received broadcast signal or the received broadcast data, and c) if predetermined registration information is detected from among the detected emergency-warning broadcast signal or the detected emergency-warning broadcast data, powering on a main power-supply unit of the TV system.

WO 2004/034350 A1

Ex. 1008 (Kim) cover; POR, 20-23

Ex. 1008 (Kim) Fig. 6; POR, 21

(57) Abstract: An emergency broadcast television system and method for propagating an emergency broadcast signal. The method for propagating the emergency-warning broadcast signal in a television (TV) system includes steps of a) receiving a broadcast signal or broadcast data, b) detecting an emergency-warning broadcast signal or emergency-warning broadcast data being overlapped with or inserted in the received broadcast signal or the received broadcast data, and c) if predetermined registration information is detected from among the detected emergency-warning broadcast signal or the detected emergency-warning broadcast data, powering on a main power-supply unit of the TV system.

Ex. 1008 (Kim) abstract; POR, 20-23

Demonstrative Only - Not Evidence PO-65

Claim differentiation between independent Claim 1 and Claims 11 and 16 support the endpoint of Claim 1 being a separate device

- **The difference in claim language of Claim 1, 11, and 16 correspond to separate embodiments disclosed in the specification**

1. A method, comprising:
monitoring media streams associated with channels in a communication environment;
receiving an alert in one of the media streams; and
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 ('664 Patent), claim 1; PO-SR, 16

11. Non-transitory readable media that includes code for execution and when executed by a processor operable to perform operations comprising:
monitoring media streams associated with channels in a communication environment;
receiving an alert in one of the media streams; and
elevating a priority associated with the media stream receiving the alert.

Ex. 1001 ('664 Patent), claim 11; PO-SR, 16

- The difference in claim language of Claim 1, 11, and 16 correspond to separate embodiments disclosed in the specification

receiving the alert, such that an adjustment is made to how the media stream is provisioned to an endpoint in the communication environment.

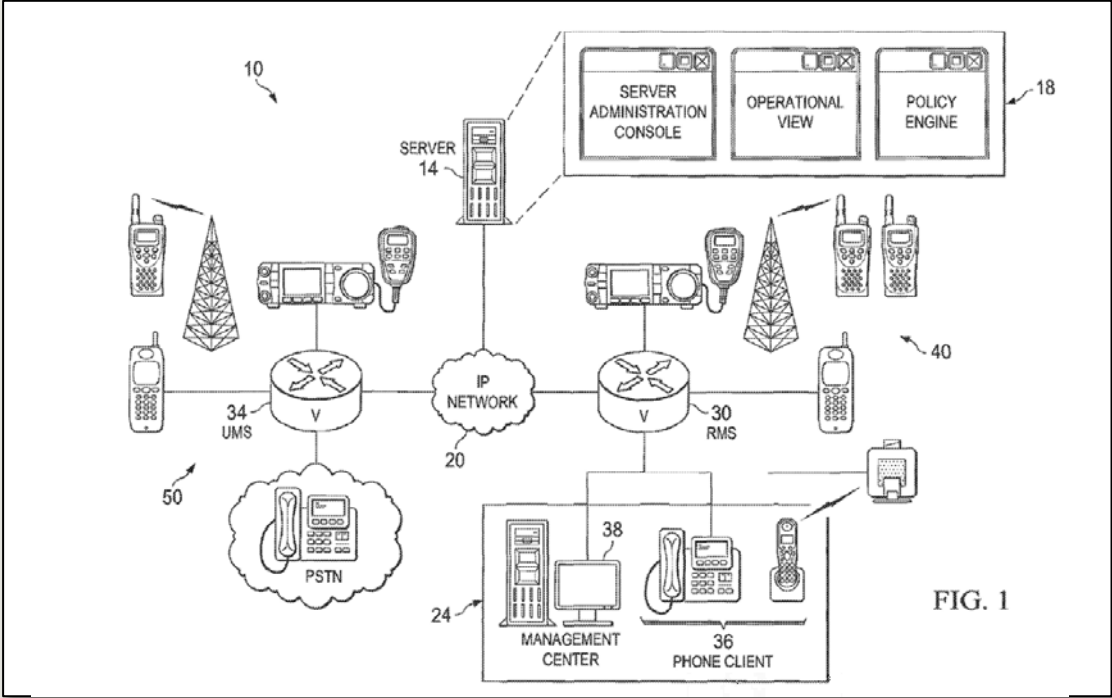
Ex. 1001 ('664 Patent), claim 1; PO-SR, 16

elevating a priority associated with the media stream receiving the alert.

Ex. 1001 ('664 Patent), claim 11; PO-SR, 16

nel or a plurality of channels. Management center 38 is an example of a PTT device, which supports a plurality of channels. Management center 38 can support a plurality of chan-

Ex. 1001 ('664 Patent), 3:19-21; PO-SR, 18



Ex. 1001 ('664 Patent), Fig. 1; PO-SR 17

- ***Kim* discloses a television as an endpoint, which does not adjust how a media stream is provisioned**

The present invention relates to a television system serving as a broadcast signal receiver, and more particularly to an emergency-warning broadcast television system for propagating emergency-warning broadcast signals, and a method for propagating emergency-warning broadcast signals using the same emergency-warning broadcast television system.

Ex. 1008 (Kim), 1:3-7; PO-SR, 19

between broadcast center in *Kim* and the endpoint television. Nothing in *Kim* discusses how the broadcast message itself is adjusted before it reaches the television, nor is there a difference in provisioning the broadcast transmission before it reaches the television. The broadcast transmitted from the broadcast center remains unchanged up to the point it reaches the television, where the modules of the television are adjusted for presentation of the broadcast. This message-based system is not what the '664 Patent claims.

Ex. 2005 (Shaffer Declaration), ¶142; PO-SR, 19

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

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

- The plain and ordinary meaning of claim 1 requires the system to adjust the media stream before being received by the endpoint

1. A method, comprising:
monitoring media streams associated with channels in a
communication environment;
receiving an alert in one of the media streams; and
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 ('664 Patent), claim 1; POR, 50

Order of steps	The steps of the claim must be performed in the recited order.
'664 Patent: Claim 1	

Ex. 2004 (Claim Construction Order), 16

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

- The plain and ordinary language of claim 1 requires the system to adjust the media stream before being received by an endpoint

The Petition's argument thus fails because the preset levels affect the channel only after the media stream is received by the dispatcher a POSITA would understand that the console system in *Downs* is not the same intelligent system devised in the '664 Patent.

Ex. 2005 (Shaffer Declaration), ¶123; POR, 50

The Petition and Petitioner's expert Mr. Williams, erroneously allege that *Kim* discloses or renders obvious the claimed limitations of the '664 Patent. Specifically, the Petition alleges that the powering on of the television is an elevation of priority, while the changing of the volume by the controller in *Kim* is allegedly the claimed adjustment. Petition, 70. This is simply not the case. In order to meet the claim limitation, the media stream itself has to affect change to the endpoint. Ex. 1001, cl. 1. *Kim*'s controller merely acts in accordance with pre-determined message signal received in a transmission. Nothing about this message effectuates an elevation in priority by the controller *within* the television since by this very nature, the controller is located at the endpoint. In order to meet the claim limitations, the media stream needs to be elevated *before* it reaches the endpoint. A POSITA would understand that the receipt of the unaltered and un-elevated message from the broadcast center is nothing more than reacting to predetermined commands from the broadcast center.

Ex. 2005, ¶144; POR, 50

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

- The specification of the '664 Patent is consistent with the claim language

policy engine: all of which are depicted as element **18**. FIG. 1 also includes an IP network **20**, which is coupled to a router media service (RMS) element **30** and a universal media service (UMS) element **34**. UMS **34** is coupled to a public

Ex. 1001 ('664 Patent), 2:37-40; POR, 50

left and/or right ear. This mixer can also control the relative volume of each media stream played to the right and left ear. In accordance one example implementation, multiple media streams arrive at management center **38** and the mixing of these media streams takes place in management center **38**.

In accordance with another example aspect of the present architecture, multiple media streams arrive at UMS **34** or RMS **30** and are being mixed there. The resulting two media streams (per user] are then streamed from the RMS/UMS to management center **38**. Such an architecture has the advantage that the bandwidth it needs [between management center **38** and IP network **20**] is enough to accommodate two media streams. In a hybrid architecture, some mixing takes place on the UMS/RMS and some at management center **38** is also covered by our invention. In this sense, the provisioning is being done externally, and the individual endpoints do not have to be capable of managing these alert messages.

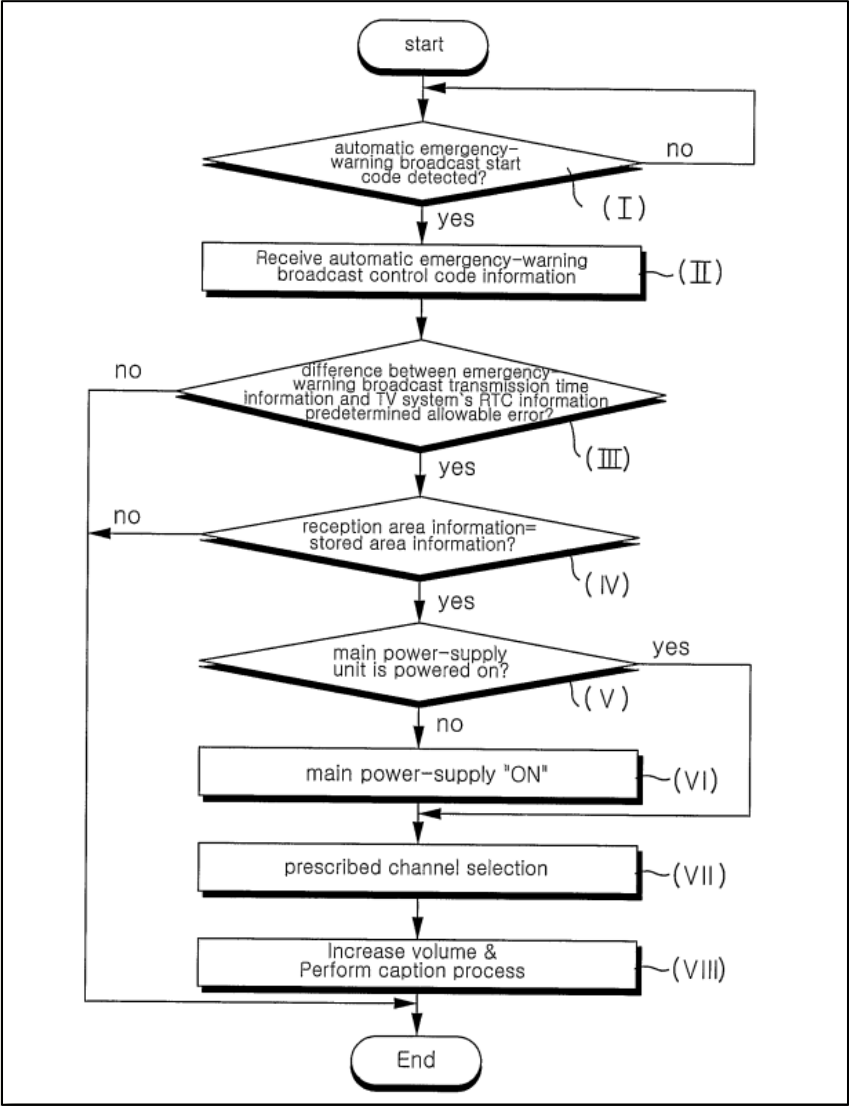
Ex. 1001 ('664 Patent), 5:36-52; POR, 50

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

- **Kim receives broadcast data in exactly the same form as originally broadcasted, with no elevation of the priority associated with the media stream receiving the alert**

invention, the above and other objects can be accomplished by the provision of a method for propagating an emergency-warning broadcast signal in a television (TV) system, comprising the steps of: a) receiving a broadcast signal or broadcast data; b) detecting an emergency-warning broadcast signal or emergency-warning broadcast data being overlapped with or inserted in the received broadcast signal or the received broadcast data; and c) if predetermined registration information is detected from among the detected emergency-warning broadcast signal or the detected emergency-warning broadcast data, powering on a main power-supply unit of the TV system.

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



Ex. 1008 (Kim), Fig. 3; POR, 52

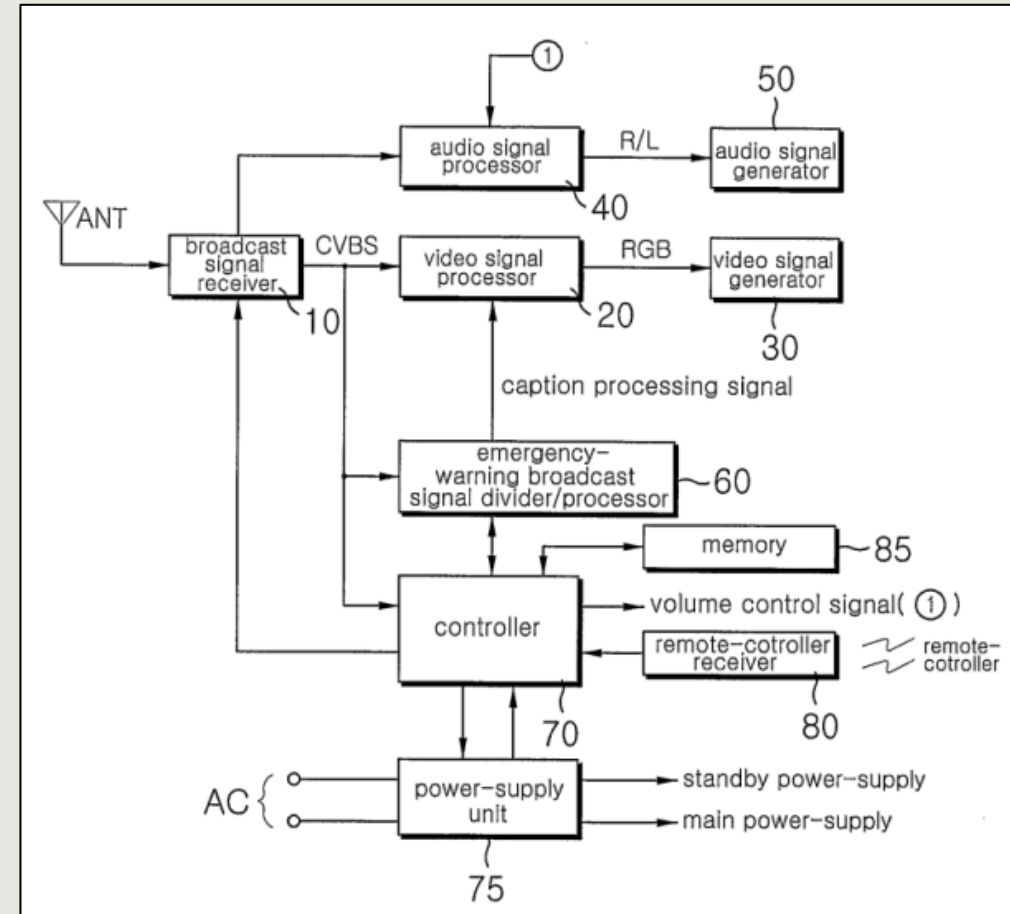
The Fundamental Operation of the '664 Patent Differs from the System of *Kim*

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

Kim discloses a message based system that is statically configured without any possibility of the media stream itself being adjusted. A POSITA would determine this by looking to the disclosures of *Kim* in Figure 2. In Figure 2,

in the emergency broadcast message. *Id.* In *Kim*, the television receives information from a control center to then initiate some change in how the television operates. *Id.*, 11:13-12:12. This, in essence, is a causal relationship between broadcast center in *Kim* and the endpoint television. Nothing in *Kim* discusses how the broadcast message itself is adjusted before it reaches the television, nor is there a difference in provisioning the broadcast transmission before it reaches the television. The broadcast transmitted from the broadcast center remains unchanged up to the point it reaches the television, where the modules of the television are adjusted for presentation of the broadcast. This message-based system is not what the '664 Patent claims.

Ex. 2005 (Shaffer Declaration), ¶142; POR, 53



Ex. 1008 (*Kim*), Fig. 2; POR, 54

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

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

The controller 280 determines whether a difference between emergency-warning broadcast transmission time information and TV system's RTC information is in the range of a predetermined allowable error at step 3. If it is determined that the difference between the emergency-warning broadcast transmission time information and the TV system's RTC information is in the range of the predetermined allowable error at step 3, the controller 280 determines whether the received emergency-warning broadcast reception area information contains specific information equal to area information registered in the memory at step 4. If the received emergency-warning broadcast reception area information contains the same specific information as area information registered in the memory at step 4, the controller 280 powers on a system's main power-supply unit at step 5 to provide system's individual components in a power-supply standby mode with an operation power-supply voltage. The controller 280 outputs a volume control signal to increase a volume level of the TV system, this volume control signal is transmitted to the amplifier 270, and thereby the amplifier 270 increases the output volume level of the TV system.

Ex. 1008 (Kim), 26:24-27:20; POR, 56

In accordance with the techniques and teachings of the present invention, communication system 10 can readily identify this alert message and respond in any number of ways to ensure that the message was properly received. One intelligent response mechanism of the present invention provisions communications from the left ear to the right ear or vice versa. Another intelligent response mechanism simply turn up the volume on a channel that the alert. Note that these responses could easily be combined into an automatic reconfiguration.

Another intelligent response for this scenario is for management center 38 to identify which channel is the primary channel for one or more end-users. Due to the urgency of this event alert, the system responds by moving the alert message to the primary channel and marginalizing all the other channels for a configurable period. Part of this response also includes turning the volume down on every other channel. Thus, management center 38 can promptly identify an event alert and coordinate a suitable response autonomously, or in conjunction with a server that would assist in provisioning the appropriate channels.

Ex. 1001 ('664 Patent), 3:56-4:9; POR, 56

Ground No. 8
***Kim* in view of *Ishibashi* – Section 103**

For the same reasons as Ground 7, the dependent claims in Ground 8 are not unpatentable

Ground No. 9
***Kim* in view of *Goss* – Section 103**

For the same reasons as Ground 7, the dependent claims in Ground 9 are not unpatentable

