

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC. and INSTAGRAM, LLC,
Petitioners

v.

VOXER IP LLC,
Patent Owner

Case No. IPR2021-00399
U.S. Patent No. 10,109,028 B2

Title: Embeddable Communications Software Module

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 10,109,028**

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List of Exhibits

Exhibit No.	Description of Document
1001	U.S. Patent No. 10,109,028 to Matthew J. Ranney (filed Jan. 14, 2015, issued October 23, 2018) (“’028 patent”)
1002	U.S. Patent Application Publication No. 2006/0003740 A1 (filed Jun. 30, 2004, published Jan. 5, 2006) (“ <i>Munje</i> ”)
1003	U.S. Patent No. 9,462,115 (filed April 4, 2014, issued Oct. 4, 2016) (“ <i>Rand</i> ”)
1004	International Publication No. WO 03/015383 A2 (filed August 8, 2002, published February 20, 2003) (“ <i>Bulthuis</i> ”)
1005	International Publication No. WO 2010/136997 A1 (filed May 27, 2010, published December 2, 2010) (“ <i>Pelttari</i> ”)
1006	Declaration of Dr. Samrat Bhattacharjee (“Bhattacharjee”)
1007	Curriculum Vitae of Dr. Samrat Bhattacharjee
1008	Claim Construction Order in <i>Voxer, Inc. v. Facebook, Inc.</i> (W.D. Tex. 1:20-cv-655) [Dkt. 74]
1009	First Amended Scheduling Order, dated May 12, 2020, in <i>Voxer, Inc. and Voxer IP LLC v. Facebook, Inc. and Instagram, LLC</i> , Case No. 1:20-cv-00655 (W.D. Tex.) [Dkt. 52]
1010	U.S. Pat. App. Ser. No. 09/780,229 Filed Feb. 9, 2001

INTRODUCTION

Pursuant to 35 U.S.C. § 311, Facebook, Inc. (“Facebook”) and Instagram LLC (“Instagram”) respectfully request *inter partes* review of U.S. Patent No. 10,109,028 (“the ’028 patent”), which is attached as Ex-1001 and is assigned to Voxer IP LLC (“Patent Owner”).

I. MANDATORY NOTICES UNDER § 42.8(a)(1)

A. Real Party-In-Interest under § 42.8(b)(1)

Facebook and its subsidiary Instagram are the real parties-in-interest to this *inter partes* review petition (the “Petition”). For ease of reference, the Petition will refer to Facebook and Instagram collectively as “Petitioner” (singular).

B. Related Matters under § 42.8(b)(2)

The ’028 patent is the subject of pending litigation involving Petitioner: *Voxer, Inc. and Voxer IP LLC v. Facebook, Inc. and Instagram, LLC*, Case No. 1:20-cv-00655 (W.D. Tex.) (the “Texas Litigation”). The Complaint in that action alleges that Facebook and Instagram infringe five patents, including the ’028 patent.

Although these are not judicial or administrative matters that would affect, or be affected by, a decision in this proceeding, Petitioner notes that it has filed petitions for *inter partes* review on three patents (U.S. Patent Nos. 10,511,557; 10,142,270; and 8,180,030) that are also the subject of the Texas Litigation. Single

petitions were filed against U.S. Patent No. 10,142,270 (IPR2021-00115) and U.S. Patent 8,180,030 (IPR2021-00114), and two petitions were filed against U.S. Patent No. 10,511,557 (IPR2021-00112, IPR2021-00113). The '028 patent is not related to any of those three patents although all four patents share Matthew Ranney as an inventor.

C. Counsel and Service Information.

Lead counsel: Eugene M. Paige (Reg. No. 55,519). Backup counsel: Christa Anderson (*pro hac vice* admission to be requested). Service information: Keker, Van Nest & Peters LLP, 633 Battery Street, San Francisco, CA 94111, Telephone: (415) 391-5400, Fax: (415) 397-7188, Email: FBVoxerIPR-KVP@keker.com. Petitioner consents to electronic service of all documents. A Power of Attorney for Petitioner is being filed concurrently.

II. FEE PAYMENT UNDER 37 C.F.R. §§ 42.103(a) AND 42.15(a).

Petitioner submits the required fees with this petition.

III. GROUNDS FOR STANDING

Petitioner certifies that the '028 patent is available for *inter partes* review and that Petitioner is not barred or otherwise estopped from challenging the '028 patent on the grounds asserted here.

IV. PRECISE RELIEF REQUESTED

Petitioner requests that *inter partes* review be instituted and that the challenged claims be cancelled as unpatentable based on:

Ground	Claims	Basis for Challenge under § 103(a)
1	1, 5, 12	<i>Munje</i> (Ex-1002) and <i>Rand</i> (Ex-1003)
2	1, 5, 12	<i>Bulthuis</i> (Ex-1004) and <i>Pelttari</i> (Ex-1005)

For purposes of this proceeding, Petitioner assumes the earliest effective filing date of the '028 patent is April 16, 2014, the date of the earliest provisional patent application to which the '028 patent claims priority.¹ *Munje* was published on January 5, 2006. *Rand* was filed on April 4, 2014. *Bulthuis* was published on February 20, 2003. *Pelttari* was published on December 2, 2010. *Bulthuis*, *Pelttari*, and *Munje* qualify as prior art under 35 U.S.C. §102(a)(1); *Rand* qualifies as prior art under 35 U.S.C. §102(a)(2).

Submitted with this Petition is the Declaration of Dr. Samrat Bhattacharjee, a qualified technical expert. See Ex-1006 ¶¶ 4–12; Ex-1007 (*Curriculum Vitae*).

¹ Petitioner does not concede that any challenged claim is, in fact, entitled to an effective filing date of April 16, 2014, and reserves the right to challenge any claim of priority in this or any other proceeding involving the '028 patent.

V. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art at the time of the invention (“POSITA”) would have had a working knowledge of computer networking and distributed systems generally, and messaging and multimedia communication systems specifically. Such a person would have had at least a bachelor’s degree in computer science, computer engineering, or an equivalent degree, and 2–3 years of professional experience with distributed multimedia systems, with a working knowledge of computer networking and distributed systems generally and messaging and multimedia communication systems specifically. Work experience could be substituted for additional education, and vice versa. Ex-1006 ¶¶ 20–31.

VI. OVERVIEW OF THE ’028 PATENT

In the specification, the ’028 patent acknowledges that there are “a wide variety of communication services available for use on mobile and computer devices” which “allow a user to talk in real time with another user” and “to send text messages, video or images[.]” Ex-1001 1:21–27. The ’028 patent states that “[t]ypically, users will access the above communications services by using a dedicated application,” such as an installed “dedicated Skype client on [a] mobile device.” *Id.* 1:28–31.

As an alternative, the ’028 patent proposes a “communications software module that can be easily embedded in a wide variety of software applications and

platforms.” *Id.* 3:49–52. This embeddable communications software module performs various functions to facilitate live (“near real-time”) or delayed (“time-shifted”) communications via a separate communications system, and to progressively transmit, receive, and store messages. *Id.* 3:20–41. The claimed module uses an application programming interface (API) to communicate with a software application in which it is embedded. *Id.* Fig. 2B, 13:62–67.

This Petition challenges Claims 1, 5, and 12 of the ‘028 patent.

1. **Independent Claim 1** recites that the embeddable communications software module performs functions relating to the receipt of an “incoming message.” It claims “[a]n embeddable communications software module that allows a software application to access a [separate] communications system providing both time delayed and near real time communication,” which module is “stored in a non-transitory tangible computer readable storage medium” and “is arranged to” (a) “provide an application programming interface (API)” through which the claimed module communicates with the software application, (b) “receive an incoming message behavior policy from the software application” to control how the claimed “module responds to incoming messages,” (c) “receive” and “progressively store” an incoming message, (d) “send a notification to the software application based on the incoming message behavior policy,” and (e) “selectively render the

incoming message” in either “near real time mode” or “time-shifted mode”
based at least in part on the incoming message behavior policy.

2. Dependent Claim 5 recites an embeddable communications module as described in Claim 1 that is further arranged to (a) “receive recipient identity information from the software application,” and (b) record, progressively store, and progressively transmit outgoing media to a message recipient “identified by the recipient identity information.”

3. Independent Claim 12 recites that the embeddable communications software module as described in Claim 1 is arranged to perform functions relating to “outgoing media.” It claims that the embeddable communications module “is arranged to” (a) provide an API through which the claimed module communicates with the software application, (b) “receive recipient identity information from the software application,” (c) record and progressively store outgoing media as the media is being created and sent, and (d) progressively transmit outgoing media as the media is being created and sent to a “device associated with a message recipient.”

None of the elements of Claims 1, 5 or 12 are remotely novel, individually or in combination, as explained in Grounds 1 and 2. *See* Ex-1006 ¶ 40. Instead, the claimed embeddable communications software module that perform functions

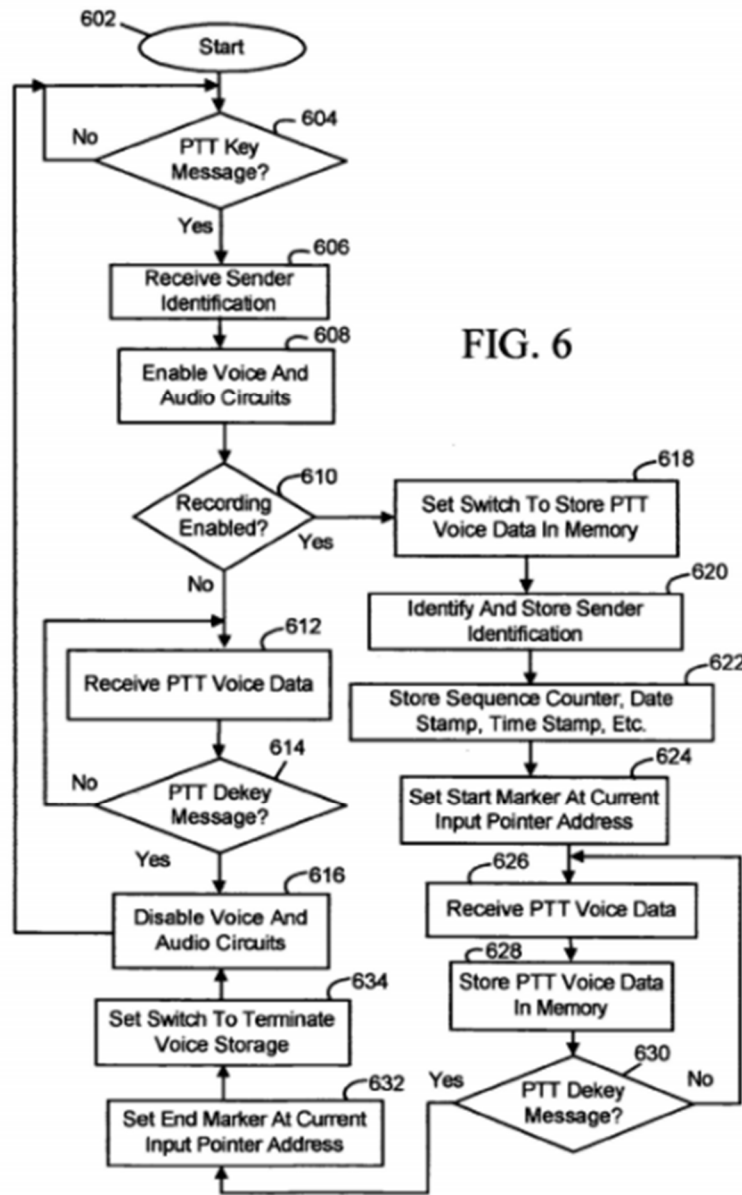
relating to communication of “outgoing media” or the rendering of an “incoming message” was well known in the art long before the alleged invention. *Id.*

VII. OVERVIEW OF THE PRIOR ART

A. Munje

Munje claims a “mobile station” (such as a cellular telephone) which utilizes a message behavior “switch” that can be configured to record live incoming PTT (Push-to-Talk) voice communications, thus allowing message rendering in a time-shifted mode, in addition to a real-time mode. Ex-1002 Abstract, Claim 1; Ex-1006 ¶ 57. *Munje* explains that “PTT voice communications are different from traditional cellular telephony communications in that the voice communications are generally immediate and unannounced.” Ex-1002 [0005]. Consequently, a recipient of a PTT communication “may be busy or caught ‘off guard’ and not listening to the initial communication.” *Id.* *Munje* proposes to solve this issue by enabling “a service provider or end user at the user interface of the mobile station” to select or set a “recording feature” as an option through the use of claimed switches, such as a “key message” allowing for “automatic[] record[ing of] Push to Talk (PTT) voice communications for replay in a mobile station.” *Id.* [0068], [0007], [0053–54], [0008] (“Advantageously, PTT voice communications that are missed . . . may be replayed by an end user.”); Ex-1006 ¶ 58.

Munje's claimed "method of automatically recording PTT voice communications for replay in a mobile station" is described in Figure 6:



Ex-1002 Fig. 6; Ex-1006 ¶ 59. *Munje* discloses that the claimed invention enables progressive storage and recording of PTT communications. Ex-1002 Fig. 6. This claimed invention "may be embodied in a computer program product," which in

turn includes “computer instructions stored in a storage medium.” *Id.* [0066],

Claim 19.

Munje instructs that this claimed invention sends, receives, records, stores, and otherwise enables communications over a communications network. *See, e.g.*, Ex-1002 [0007] (describing claimed apparatus “for automatically recording Push-To-Talk (PTT) voice communications” received over “a wireless communication network”), Claim 10 (“[a] mobile station, comprising a wireless transceiver adapted to operate within a wireless communication network[.]”); Ex-1006 ¶ 66.

As part of the invention in *Munje* and as shown in Figure 6, incoming PTT voice data is stored by the transceiver simultaneously with its receipt. Ex-1002 [0007], [0072], [0071] (“[T]he voice data for the PTT voice communication is received through the wireless transceiver (step 626 of FIG. 6). . . . Advantageously, the voice data of the PTT voice communication is also simultaneously saved in memory (step 628 of FIG. 6).”); Ex-1006 ¶ 61.

In addition to storing incoming PTT voice communications, *Munje* discloses progressively storing outgoing PTT voice communications as they are being transmitted: “Upon PTT button depression, the processor causes **the voice data of**

the PTT voice transmission to be stored in the memory simultaneously with its transmission.” Ex-1002 [0074] (emphasis added²); Ex-1006 ¶ 62.

Munje further discloses both real-time and time-shifted rendering of received messages pursuant to the user’s election. Ex-1002 [0053–54], [0007–0008]. *Munje* permits “conventional listening of voice with simultaneous recording in memory.” *Id.* [0054]; Ex-1006 ¶ 63. After voice communications are stored in memory, they may be replayed by the user. Ex-1002 [0054]; Ex-1006 ¶ 63. “[I]n response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Ex-1002 [0079]; *see also id.* [0007], [0075–78], Fig. 7.

B. Rand

Rand discloses managing and delivering PTT audio and video communications, including PTT live streams. Ex-1006 ¶ 64. *Rand* notes that in the prior art, unscheduled calls can interrupt the recipient, establishing connections between the parties requires the user to dial and wait for an answer, background noise limits conversations, and a user must have at least two applications if the user would like to text a friend but also share a file or music. Ex-1003 1:12–17, 1:30–35, 3:5–7; Ex-1006 ¶ 64. *Rand* seeks to overcome these shortcomings by

² All emphasis is added throughout by the author of this Petition.

combining several features in communication systems, including text messaging services, PTT services, 2-way communication, group conferencing, video calling, and file sharing, among other things, into a single platform. Ex-1003 2:25–28; 2:66–3:7; Ex-1006 ¶ 65. *Rand* calls this platform invention a “software embodiment” that it names “the Application.” Ex-1003 Figs. 9A, 2a–2h, 14:1–3, 21:38–44; Ex-1006 ¶ 65.

Figure 9A illustrates the functionality disclosed in *Rand*:

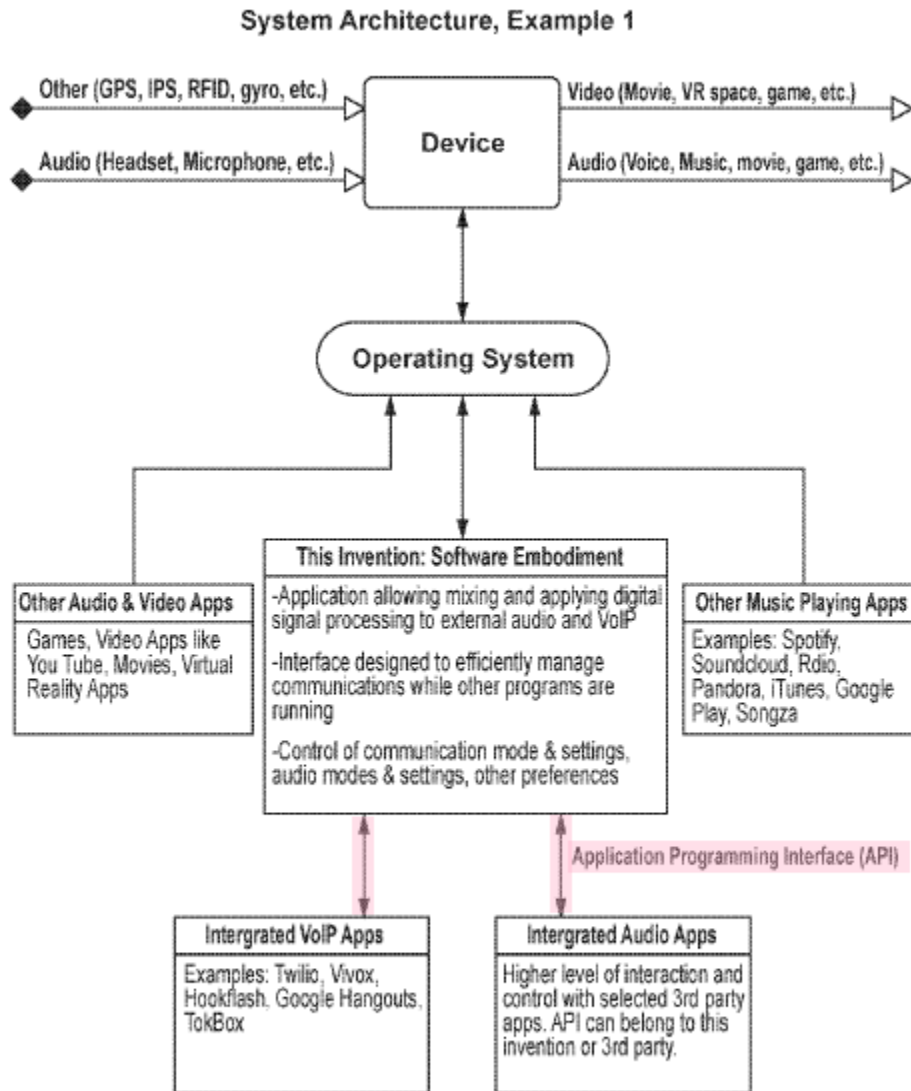


FIG. 9A

Ex.-1003 Fig. 9A (annotated). As illustrated above, the Application communicates via an Application Programming Interface (“API”) with software consisting of the Integrated VoIP and Audio Applications depicted in Fig. 9A. *Id.* 21:41–43 (“The Application could integrate with third party VoIP and Audio Apps through an

Application Programming Interface (API)[.]”), Fig 2d, 14:46–47; 16:5–28, 17:47–53, 24:15–18; Ex-1006 ¶ 66.

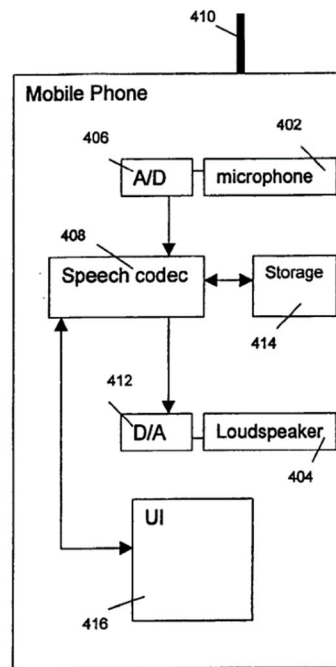
Rand also discloses a device communicating with a second device, and optionally other devices. Ex-1003, Fig. 12; 24:10–13; Ex-1006 ¶ 67. Each device contains an Application. Ex-1003 Fig. 12. The Application has a set of instructions for controlling numerous inputs, such as control inputs (including keyboards, touchscreens, wearable devices, sensors built into a phone, headsets, or other devices, as well as any other device), audio inputs (audio, music, from other applications), voice inputs (microphone located on the device itself or any other device), and video inputs. *Id.* 24:15–44; *see also id.* 4:37–41 (the software application also “contains code for delivering features that help users determine the availability of their friends for communication and collaboration.”). When sending a message to another device, the user can also select a specific recipient using the Application’s Connect user interface. *Id.* Fig. 9A, 5:57–67, 6:1–5, 14:1–7; Ex-1006 ¶ 69.

C. Bulthuis

Bulthuis discloses initiating, receiving, and recording real-time communications on consumer electronics communication devices, including audio communications over cellular networks or over the Internet. Ex-1004 2:8–10; Ex-1006 ¶ 70. *Bulthuis* explains that recording systems for audio communications

were well-known in the art but that these systems, such as voicemail and 911 services, “are not sufficiently flexible to accommodate all user needs.” Ex-1004 1:14–19. *Bulthuis* seeks to improve on these systems by configuring a “consumer electronics device, such as a cell phone” to record “real-time communication in response to a user initiating or accepting the real-time communication.” *Id.* Abstract, 1:20–21. This “provides an advantage to the user of a mobile phone” who might postpone actions in relation to the communication until “a more convenient moment as the recording is going to be available.” *Id.* 1:25–29. The communication functions of the invention may be performed by software that is carried on the consumer device. *Id.* Claim 18; Ex-1006 ¶ 70.

Figure 4 illustrates components of a mobile phone device arranged according to *Bulthuis*:



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FIG.4

Ex-1004 Fig. 4, 9:31. *Bulthuis* teaches that such a communication device utilizes “a module with a storage” which performs a variety of functions in response to input to a “user interface” (the software application) and which facilitates “communication” by the device with “conventional telephonic devices or via the Internet” (a communication system). *Id.* 4:20–30, 5:15–17; Ex-1007 ¶ 72. In response to activation of “a certain key or pattern of keys [] reserved for user-interaction with the module to implement,” the module performs functions such as “replaying the communication most recently recorded” or activating recording “during a real time communication upon a user input.” Ex-1004 4:20–30.

Bulthuis teaches communication of messages in real-time and associated recording of those messages (for later playback), depending on various settings and configurations. Ex-1004 Abstract, 2:9–11; Ex-1006 ¶ 73. For example, *Bulthuis* teaches that the software can be configured to “enable real-time communication via the device.” Ex-1004 Claims 1, 18. Recording during such a real-time communication can be “automatic.” *Id.* Claim 2. Alternatively, “Caller-ID and other profiling information (e.g., time of day) . . . may be used to select for which communications to skip the recording or to explicitly carry out the recording.” *Id.* 9:28–30.

Bulthuis teaches the progressive storage of the recordings during real-time communications, enabling the rendering of messages in time-shifted mode. Ex-1004 1:29–2:1; Ex-1006 ¶ 74. For example, *Bulthuis* discloses “instant rewind,” a mechanism requiring progressively recording and storing messages because it allows for “replay of at least a part, e.g., the last 5 minutes, of the communication recorded most recently.” Ex-1004 3:11, 10:17; Ex-1006 ¶ 74. *Bulthuis* teaches that this feature may be activated through a user interface such as a “button” or “upon a specific voice command.” Ex-1004 3:10–17. *Bulthuis* further teaches that communication recordings may be stored and organized in a variety of forms of storage, such as “onboard storage” in a “solid state memory card/module.” *Id.*

2:32–3:1, 2:25–29; Ex-1006 ¶ 74. *Bulthuis* explains that these stored messages may be rendered “if and when needed.” Ex-1004 8:29–30.

D. Pelttari

Pelttari discloses communicating audio content over a communication network, and enabling recording, storage, and retrieval of that content. Ex-1005 Abstract, [0012]; Ex-1006 ¶ 75. *Pelttari* explains that although “voice/audio call[s]” advantageously can be “accessed in real time” and carry the “benefit of being enabled on all types of communication terminals,” this medium “requires user intervention in receiving the call” which “may not be desirable at times.” Ex-1005 [0008]. *Pelttari* seeks to solve this problem by configuring systems on smart phones, laptops, desktops and other devices to automatically identify, accept, and record an incoming call along with identification information, as well as initiate outgoing calls to identified recipients. *Id.* [0012–13], [0035]; Ex-1006 ¶ 75.

Pelttari teaches this facilitation of audio communications through the use of functionality contained within “communication terminals” and “communication stations.” Ex-1005 [0012–13]. In particular, *Pelttari* discloses a “recipient communication terminal” such as a smart phone, which comprises “a receiver configured to automatically identify and accept an incoming audio call,” where that audio call along with “identification parameters” is received “over a telephony channel” (a communication system) and automatically stored. *Id.* [0012]. In

another embodiment, *Pelttari* discloses a “communication station, comprising a receiver configured to receive an audio call request including identification parameters,” and containing functionality to receive and record audio content, determine the location of an identified recipient of a message, and initiate a call to transmit audio content to an identified recipient. *Id.* [0013]; Ex-1006 ¶ 76.

Pelttari explains that the invention can be performed by a “computer program product” (*i.e.*, a software application) that contains “computer readable program code” (that a POSITA would have understood can be a module or modules) which enables both incoming and outgoing communications. Ex-1005 [0019–0021] (claiming “a computer program product” comprising various bodies of code to perform multiple functions such as “code for receiving an audio call request,” “code for storing audio content,” “code for initiating an audio call,” etc.), [0113], [0115]; Ex-1006 ¶ 77.

Pelttari also teaches the use of an API to facilitate communications. Ex-1006 ¶ 78. In particular, it teaches that when the communication terminal receives an incoming call, it identifies the communication on the basis of “predefined parameters.” Ex-1005 [0042]. These “predefined parameters” may be associated with a “known API which designates identifiers to services including audio content delivery.” *Id.* [0076].

Pelttari additionally discloses progressive storage of these incoming messages. Ex-1006 ¶ 79. An incoming call is stored “in one or more content stores appropriate for storing and accessing content pertaining to the specified category.” Ex-1005 [0041]. These incoming calls may be accepted and stored “without alerting the user and without user intervention.” *Id.* [0075].

Pelttari also teaches the use of notifications in the form of “alerts.” Ex-1006 ¶ 80. For example, an “alert” is provided to the user when “entire content has been recorded or when only part of the content has been recorded and no storage space is available to record further data.” Ex-1005 [0047]. An “alert” may also be produced if the recipient communication terminal does not support the category specified by the predetermined parameters. *Id.* [0044]. The stored content may be accessed through an interface, which may “correspond to the relevant application” and “may comprise playback or deletion of the content.” *Id.* [0080].

Pelttari further discloses the use of recipient identity information in the process of recording and transmitting outgoing media. Ex-1006 ¶ 81. For example, in one embodiment *Pelttari* discloses that the “transmitter (305) may retrieve the contact parameters of the at least one recipient from an address book.” Ex-1005 [0072]; *see also id.* [0125] (“The computer program product may further comprise computer readable program code for obtaining contact details of a recipient from an address book.”).

VIII. CLAIM CONSTRUCTION

In the Texas Litigation, the District Court construed the term “incoming message behavior policy” and additionally found that the preambles of claims 1, 5, and 12 were limiting. Petitioner respectfully submits that under 37 C.F.R. § 42.100(b), the claims of the ’028 patent should be given their plain meaning for purposes of this Petition. The limitations of claims 1, 5, and 12 are disclosed by the prior art under any reasonable construction. Petitioner reserves the right to respond to any constructions later proposed by the Patent Owner or the Board.

A. “incoming message behavior policy”

The term “incoming message behavior policy” was construed in the Texas Litigation as “received data indicating how the embeddable communications software module responds to incoming messages.” *See* Ex-1008.

B. Construction of Preambles of Claims 1, 5 and 12

The District Court concluded that the preambles of claims 1, 5, and 12 are limiting. *See* Ex-1008. The District Court found that the claimed “embeddable communications software module” referenced in the preamble had its plain and ordinary meaning. *See* Ex-1008.

IX. DETAILED EXPLANATION OF GROUNDS

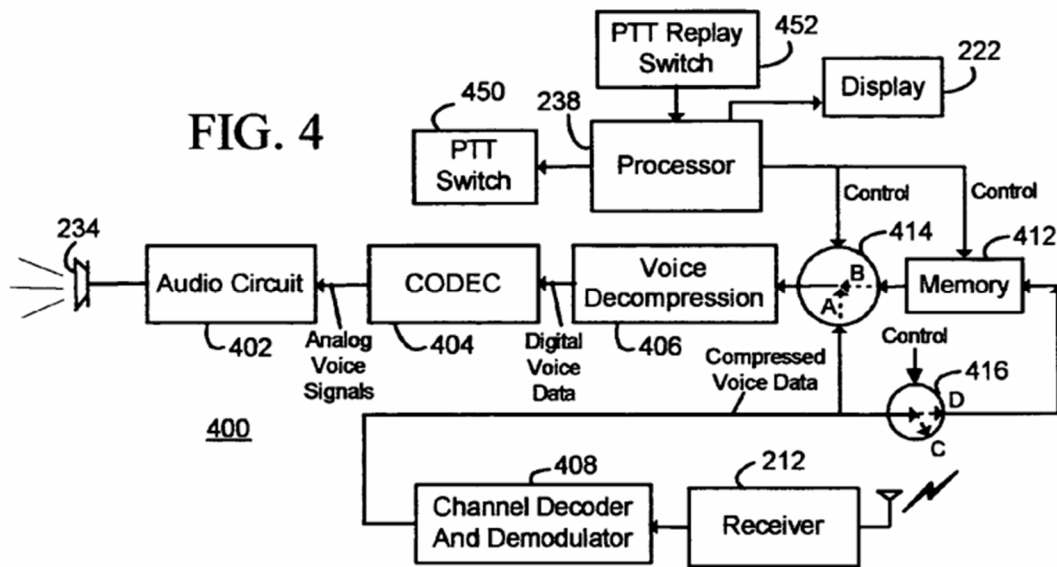
A. Ground 1: Obviousness of Claims 1, 5, 12 in view of *Munje* and *Rand*

For the reasons explained in detail below, *Munje* in combination with *Rand* renders obvious Claims 1, 5, and 12 of the '028 patent.

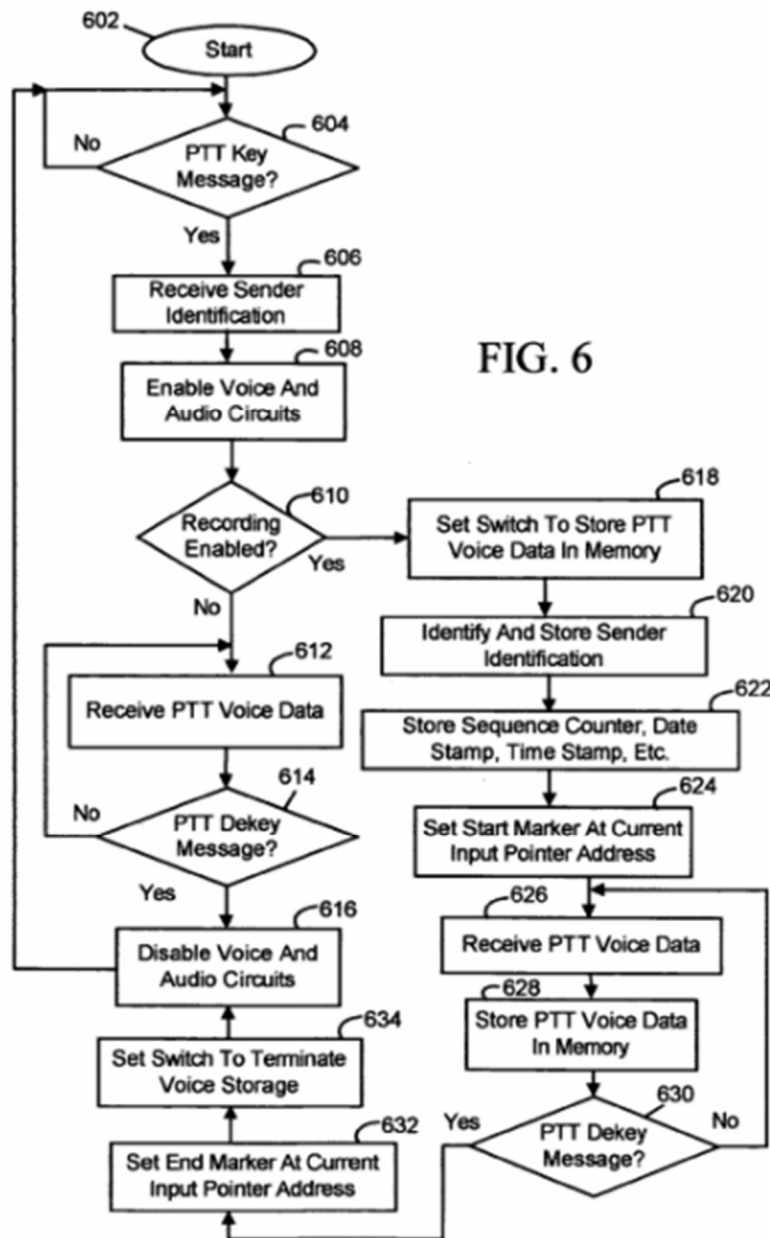
1. Claim 1

- a. **An embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium, wherein the embeddable communications software module is arranged to:**

Munje teaches the **embeddable communications software module** identified in the preamble. Ex-1006 ¶¶ 86–98. *Munje* enables “automatically recording Push-To-Talk (PTT) voice communications for replay in a mobile station.” Ex-1002 [0007]. Figure 4 of *Munje* is a schematic of the electrical components associated with the claimed “mobile station”:



Id. Fig. 4, [0013], [0051–0055]. *Munje* teaches that this mobile station can be implemented with **software modules**. Ex-1006 ¶ 88. In particular, Figure 6 is a schematic describing “a method of automatically recording PTT voice communications for replay in a mobile station” in accordance with the claimed invention:



Ex-1002, Fig. 6. *Munje* further explains that this described method “may be embodied in a computer program product,” which in turn includes multiple “computer instructions stored in a storage medium,”—a POSITA would have understood that this can constitute a **software module** or **modules**. *Id.* [0066],

[0066–0078], Claim 19 (claiming a “computer program product comprising” “computer instructions”); Ex-1006 ¶ 88.

Munje further discloses that the module is an embeddable software **communications** module because it sends, receives, records, stores, and otherwise enables communications. *See, e.g.*, Ex-1002 [0007] (describing claimed apparatus “for automatically recording Push-To-Talk (PTT) voice communications” received over “a wireless **communication** network”), Claim 10 (“[a] mobile station, comprising a wireless transceiver adapted to operate within a wireless **communication** network[.]”), Claim 19 (claiming software to enable the mobile station claim in Claim 10); Ex-1006 ¶ 89.

Munje also discloses an **embeddable** communications software module. Ex-1002 [0066] (method of Figure 6 “may be embodied in a computer program product” which comprises various “computer instructions” that are performed by “processors of the mobile station”), Claim 19; Ex-1006 ¶ 90.

Thus, as discussed above, *Munje* discloses **an embeddable communications software module**. Ex-1006 ¶¶ 86–91.

Munje additionally discloses a **communications system**. Ex-1002 [0080] (“A wireless **communication system** of the present application includes a wireless communication network”), [0026] (detailing “communicat[ion] in and through

wireless **communication network**” such as a “cellular telecommunications network”), [0035]; Ex-1006 ¶ 92.

Munje further discloses **software applications**, including a user interface depicted in Figure 8:

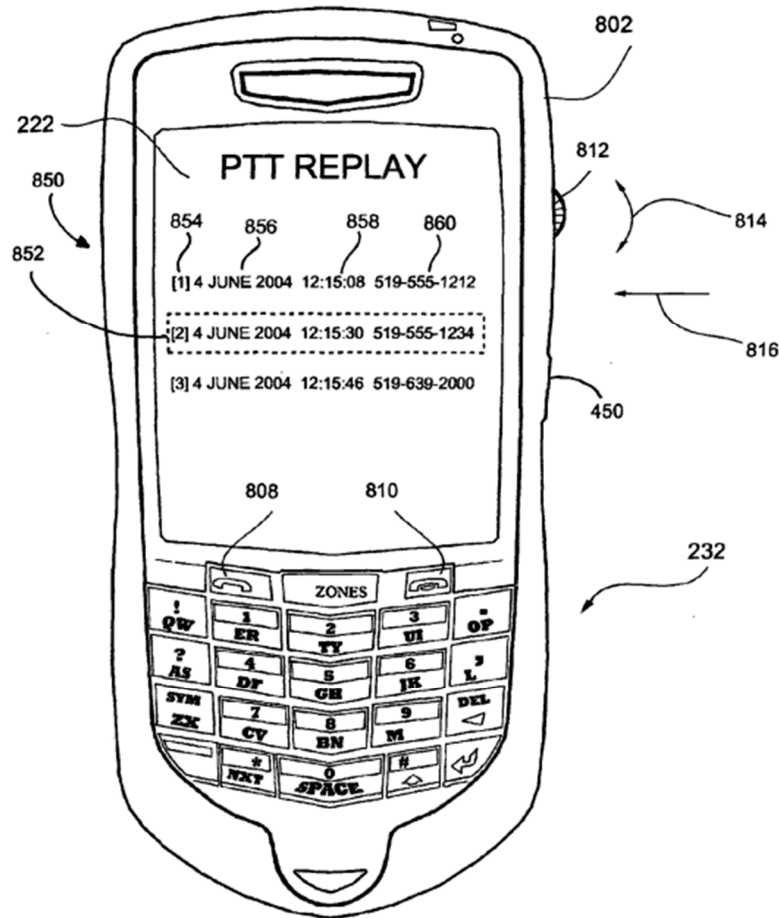


FIG. 8

Ex-1002 Fig 8, [0058]; Ex-1006 ¶ 93. *Munje* claims that such a user interface can be implemented with a **software application**. See, e.g., Ex-1002 Claim 10 (claiming a “mobile station” comprising, *inter alia*, “a user interface” which

includes a PTT “switch for transmitting a PTT voice communication through the wireless transceiver”), Claim 19 (claiming software for the user interface separately from the wireless transceiver of Claim 10), Claim 20 (claiming software for Claim 19 as well as for responding to “user actuation of a switch” causing retrieval and replay of recorded voice data); Ex-1006 ¶ 93. The software application disclosed in *Munje* provides a user interface for conveying user actions such as “a Push-to-Talk (PTT) switch for transmitting a PTT voice communication[.]” Ex-1002 Claim 10; [0060], [0068] (disclosing that a “recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station.”), Claim 19, Fig. 6; Ex-1006 ¶ 93.

Munje also discloses various third-party and integrated **software applications**, including “[a] predetermined set of applications which control basic device operations,” “[a] preferred application that may be loaded onto [the] mobile station” such as a “personal information manager” organizing e-mail, calendar, and other data items, and “[a]dditional applications [that] may also be loaded onto [the] mobile station[.]” Ex-1002 [0037–0038]; Ex-1006 ¶ 94.

Munje teaches that the embeddable communications software module allows a software application **to access one or more communications systems**. Ex-1006 ¶ 95. Specifically, *Munje* teaches that, upon user interaction with the software

application user interface, the embeddable communications software module in turn interacts with the device hardware in Figure 4 to set message behavior policies and initiate or receive calls over the communications network. Ex-1002 Fig. 6, Claim 10, Claim 19; Ex-1006 ¶ 95. Therefore, *Munje* discloses that the module **allows the software application to access the communication system.** Ex-1006 ¶ 95.

Munje discloses a software module that allows the software application to **access a communications system providing time-delayed communication** because the disclosed invention comprises, *inter alia*, computer instructions for “receiving voice data of a PTT voice communication,” “causing the voice data . . . to be recorded,” and “causing the voice data . . . to be retrieved from the memory and audible voice signals corresponding to the voice data to be output.” Ex-1002 Claim 19, Claim 20; *see also id.* Fig. 6, [0066] et seq.; Ex-1006 ¶ 96.

Munje discloses a software module that allows the software application to **access a communications system providing near real time communication** because the invention discloses “conventional PTT voice communication.” Ex-1002 [0068], [0054] (disclosing “the conventional listening of voice with simultaneous recording in memory”); Ex-1006 ¶ 97.

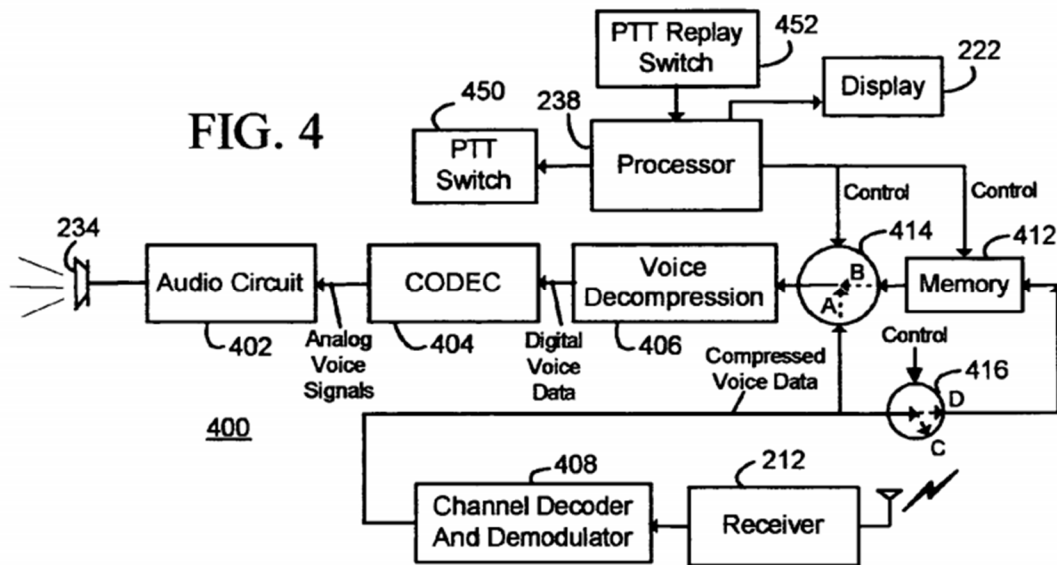
Munje discloses that the embeddable communications software module is **stored in a non-transitory tangible computer readable storage medium.** *Munje*

teaches that the invention “may be embodied in a computer program product which includes a *storage medium* (e.g. *computer disk* or memory) and computer instructions stored in the storage medium.” Ex-1002 [0066], [0081] (disclosing that the computer program product “includes a storage medium”), Claim 19 (disclosing that the computer program product comprises “computer instructions stored in the *storage medium*”), [0036] (“system software . . . is preferably stored in a persistent store such as flash memory . . . or similar storage element.”); Ex-1006 ¶ 98.

- b. **provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication software module and the software application communicating through API;**

Munje discloses **an application programming interface** that allows the embeddable communications software module to receive API inputs from the software application, and **thus, the embeddable communications software module and the software application communicate through the API**. Ex-1006 ¶ 99–101. As discussed in Section IXA1a, *Munje* discloses that the mobile device contains an embeddable communications software module and that various software applications—including the user interface, integrated applications, and third-party applications—access a communications system through the embeddable communications software module. That **module** includes the software which

enables the steps described in Figure 6 as described above, and which is used for the operations of the hardware in Figure 4 below. See discussion *supra* at IXA1a.



Ex-1002 Fig. 4; Ex-1006 ¶¶ 87–88, 100.

An **API** was a commonly used mechanism to integrate multiple software components, and the use of **APIs** to do so was regular industry practice long before the *Munje* disclosure. Ex-1006 ¶ 101. It therefore would have been obvious to a POSITA, even without resorting to the disclosure of any other reference, to modify *Munje* to use an **API** to facilitate the communication of information between the module and the user interface software (associated with Display 222) so that they communicate “**through the API.**” *Id.*; Ex-1002 Fig. 6, Claim 19.

To the extent that *Munje* does not render obvious that the embeddable communications software module and the software application communicate through the API, it does so in combination with *Rand*. Ex-1006 ¶ 102.

Rationale and Motivation to Combine

For a multitude of reasons, a POSITA would have been motivated to extend or combine *Rand* with the functionality described in *Munje* in terms of enabling the embeddable communications software module and the software application to communicate through the API. *Id.* ¶ 103.

Munje and *Rand* are in the ***same field of endeavor***, namely PTT voice communications. Ex-1002 Abstract, [0002], [0007], [0020]; Ex-1003 1:5–8, 9:26–36, 11:5–8, 11:23–27, 13:9–16, 20:9–13, 25:1–7, 25:27–44; Ex-1006 ¶ 104.

Both *Munje* and *Rand* are also aimed at addressing the ***same problem***, namely a limitation with then-conventional PTT voice communications that such communications are instantaneous and the listener may be unable to hear, or uninterested in hearing, the communication as it arrives at a communication device. Ex-1002 [0005–6] (“An end user of the mobile station may be busy or caught ‘off-guard’ and not listening to the initial communications. Thus, the end user may not hear at least the initial PTT voice communication. . . . Accordingly, there is a resulting need for mobile station methods and apparatus to overcome the deficiencies of the prior art.”); Ex-1003 1:15–17 (“Unscheduled calls often

interrupt the recipient because the callers are unaware of what the recipients are doing at that time.”), 2:8–15 (“[T]here is a risk that the recipient will not be there to answer the call. In this case, a follow up call is often delayed and forgotten as the caller resumes other work. It is therefore desirable to provide a communications system that encourages spontaneous communication and provides automated tools to alert and connect parties as they become available, without interrupting them.”); Ex-1006 ¶ 105.

Moreover, *Munje* and *Rand* propose to address the above-identified problem by offering ***similar solutions***, namely an embeddable communications software module that allows a software application to access a communications system providing both near real-time and time delayed communication for playback. Ex-1002 Claim 10 (“the wireless transceiver being operative to . . . cause the voice data of the PTT voice communication to be recorded in the memory[.]”), [0080] (“a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in . . . memory[.]”); Ex-1003 24:57–67 (“the message [may] automatically record as a voice clip and go to an inbox.”), 30:22–27 (disclosing that the recording buffer “can store messages for playback,” and a user may “select the size (e.g. recording time) of the buffer and when it records”); Ex-1006 ¶ 106.

In Figure 9A, *Rand* enables a software module to communicate with other software applications through use of an API:

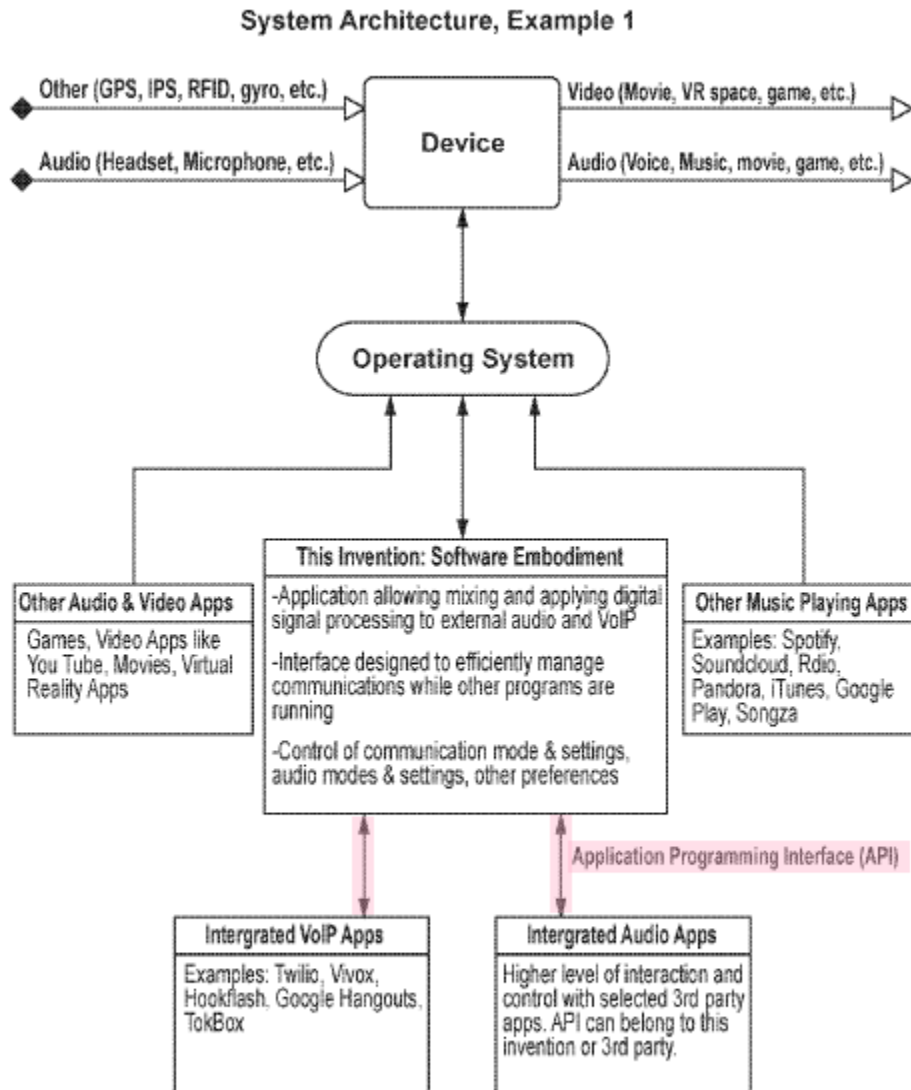


FIG. 9A

Ex-1003 Fig. 9A (annotated); *see also* 21:38–46 (“[t]he Application could integrate with third party VoIP and Audio Apps through an Application Programming

Interface (API), Software Development Kit (SDK), or other means.”); Ex-1006 ¶ 107.

Consequently, a POSITA practicing *Munje* who did not find sufficient teaching for how the embeddable communications software module and the software application communicate through an API would have been motivated to try *Rand*’s teachings given that it was in the same field, was directed at the same problem, and offered a similar solution. Ex-1006 ¶ 108. Applying *Rand*’s use of an API to inputs sent from the software application to the embeddable communications software module would have enabled users of *Munje*’s system to be able to use the user interface software application to access the embeddable communications software module, thereby providing for the initiating, receiving, and storage of calls as they are being sent and allowing play back of these calls at any moment in time. *Id.* Furthermore, a POSITA would have had the technical ability to combine known elements of *Munje* and *Rand* and would have known that each of those elements would perform the same function in combination as it does separately. *Id.* ¶ 109. A POSITA would have recognized, for instance, that *Munje*’s device is already enabled with an embeddable communications software module and software applications, the module enabling storage and selective rendering of messages in a time-shifted mode. *See* Section IXA1a. Thus, a POSITA would have understood that combining *Munje*’s embeddable communications software module

and software applications with *Rand*'s invention of enabling communication between an embeddable communications software module and software application through the use of an API would have required nothing more than the application of a known technique to a known product ready for improvement. Ex-1006 ¶ 109. In other words, it would have been obvious to a POSITA to adapt *Munje*'s system to provide *Rand*'s functionality, and such a combination could have been implemented without undue experimentation in any of various ways well known in the art. *Id.*

- c. **receive an incoming message behavior policy from the software application, wherein the incoming message behavior policy controls how the embeddable communications software module responds to incoming messages;**

Munje discloses the **receipt of an incoming message behavior policy from the software application**, wherein this policy controls how the module responds to incoming messages. Ex-1006 ¶ 110–113.

Munje discloses that the determination of whether or not voice communications will be rendered live or in time shifted mode is effected through the configuration of processor-controlled switches that enable various functions such as “the conventional listening of voice,” “conventional listening of voice with simultaneous recording in memory,” Ex-1002 [0054], and “recording for [incoming] PTT voice communications.” *Id.* [0068]; Ex-1006 ¶ 111. *Munje*

explains that Step 610 in Figure 6 is where the claimed invention “identifies whether recording for PTT voice communications is enabled for the mobile station,” and that this feature “may be an option and may be *selectable and settable* by a service provider or end user at the user interface of the mobile station.” Ex-1002 [0068], Fig. 6; *see also id.* [0054] (detailing “different switch configurations” such as switch position “A” and “D” “for the conventional listening of voice with simultaneous recording in memory”), Claims 10, 19. In other words, *Munje* discloses that the **incoming message behavior policy** of whether to enable time-shifted communication by recording is something that can be set by the end user through the **software application** of the user interface. Ex-1006 ¶ 112.

Munje additionally discloses that such an incoming message behavior policy controls **how the embeddable communications software module responds to incoming messages**, detailing that:

Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be

in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.

Ex-1002 [0054], Fig. 4, [0070] (“If the processor identifies that the recording feature is enabled . . . conventional PTT voice communication processing and recording of the voice data . . . are performed.”), Claims 10 and 19; Ex-1006 ¶ 113.

d. receive an incoming message from an [sic] remote communications device;

Munje discloses that the embeddable communications software module **receives an incoming message from a remote communications device.** Ex-1006 ¶ 114–115. *Munje* teaches that the wireless transceiver is part of the claimed module in the mobile station, (*see* Ex-1002, Abstract; Section 1XA1c; Ex-1006 ¶ 115), and “[t]he wireless transceiver is operative to **receive . . . voice data of a PTT voice communication**” from another device or mobile station. Ex-1002 [0007]; *see also id.* [0067] (teaching that the processor of the embeddable communications software module receives “an **incoming PTT voice communication** from the [other] **sending mobile station**[.]”), [0069], Claims 10, 19, 20; Ex-1006 ¶ 115.

e. progressively store the incoming message as it is received;

Munje discloses that the embeddable communications software module **progressively stores the incoming message as it is received** by the module.

Munje teaches that “[t]he processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory[.]” Ex-1002 [0007]. *Munje* further teaches “the *continuous receipt, processing, and storage of voice data of the PTT communication*”), by the embeddable communications software module. *Id.* [0072]; see also *id.* Fig 6, Fig. 4, Claim 10, 19 (describing claimed “computer program product” as comprising, *inter alia*, “instructions executable by one or more processors” for receipt and handling of PTT and voice data); Ex-1006 ¶ 116.

f. in response to the received message, send a notification to the software application based on the incoming message behavior policy;

Munje discloses that the embeddable communications software module sends **a notification to the software application in response to the received message**. In particular, *Munje* discloses “visual[] display indicators for PTT voice communications that were . . . received” and “PTT voice record indicators” that “are displayed for review by the end user.” Ex-1002 [0061]; Ex-1006 ¶ 117. These visual display and voice record indicators (which a POSITA would have

understood constitute **notifications**) on the user interface (which a POSITA would have understood to be a **software application**) are further depicted in Figure 8:

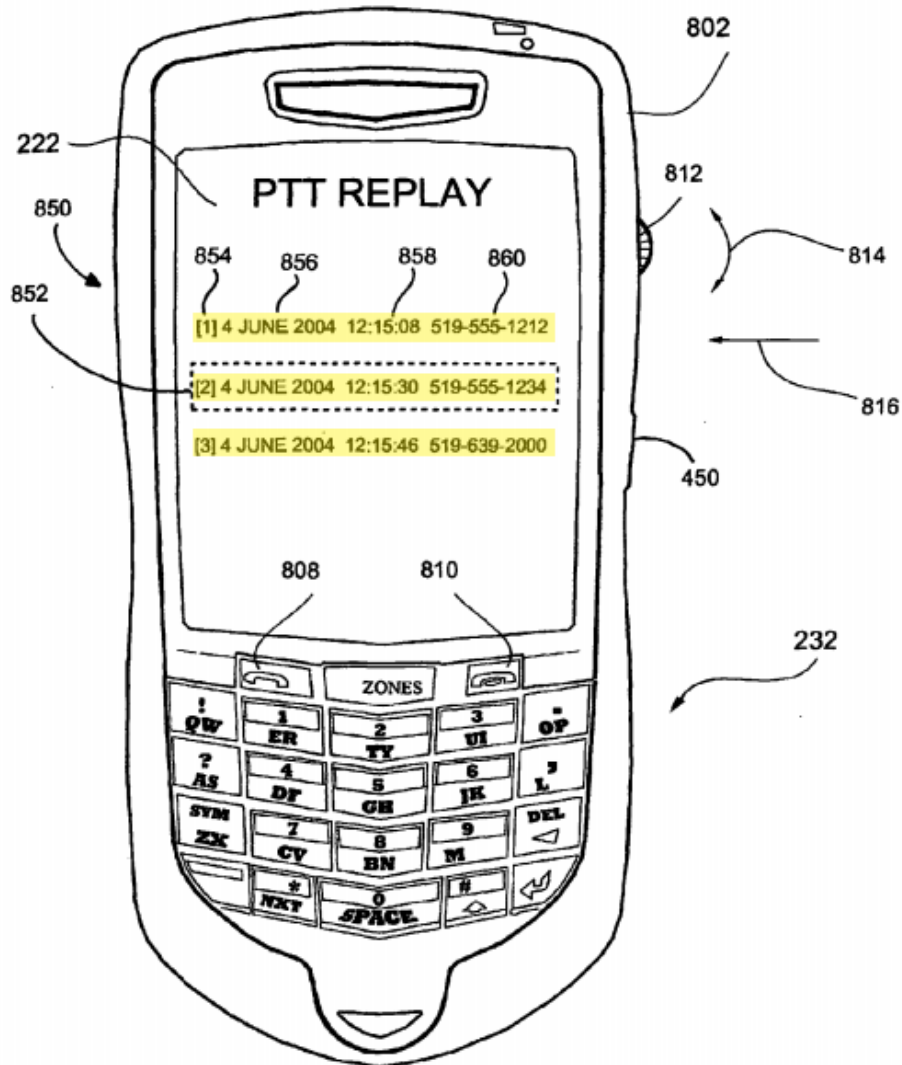


FIG. 8

Ex-1002 Fig. 8 (annotated); Ex-1006 ¶ 117.

Munje further teaches that the notification is **based on the incoming message behavior policy**. Ex-1002 [0061] (detailing that “any suitable . . . PTT

voice record indicators may be displayed” by an end user’s election), [0054] (teaching that an end user sets an incoming message behavior policy in the form of switches enabling various functions such as “the conventional listening of voice,” and the “conventional listening of voice with simultaneous recording in memory.”), [0068] (“The recording feature may be an option and may be selectable and settable by a[n] . . . end user *at the user interface* of the mobile station.”); Ex-1006 ¶ 118. Accordingly, in light of the role of the embeddable communications software module as described in Sections IXA1a–1XA1d, a POSITA would have understood that the voice record indicator **notifications** are sent by the **embeddable communications software module** to the **software application** in response to the recipient’s election of the **incoming message behavior policy**. *Id.* ¶ 118.

- g. selectively render the incoming message in a near real time mode, wherein the near real time mode involves progressively rendering the incoming message as it is received;**

Munje discloses that the embeddable communications software module is arranged to **selectively render the incoming message in a near real time mode**. Ex-1006 ¶¶ 97, 119–122. *Munje* recognizes the **near real time** nature of PTT voice communications by noting that “PTT voice communications are different from traditional cellular telephony communications in that the voice communications are

generally *immediate* and unannounced,” and so an “end user ... may be busy ... and not listening to the initial communication.” Ex-1002 [0005]. To address this problem by affording the option of listening to a recorded live communication at a later time, *Munje* discloses that the processor can “be in one of three different switch configurations,” with one such configuration enabling “*the conventional listening of voice* with simultaneous recording in memory.” *Id* [0054]; Ex-1006 ¶ 120.

Munje further discloses that **near real time mode involves progressively rendering the incoming message as it is received** because the invention allows for “conventional PTT voice communication.” Ex-1002 [0068] (disclosing “conventional PTT voice communication processing” during which “audible voice . . . [is] heard from the speaker of the mobile station”), [0054] (disclosing “the conventional listening of voice”); Ex-1006 ¶ 121.

Munje teaches that **the embeddable communications software module is arranged to selectively render the incoming message** in a near real time mode, because during “conventional PTT voice communication processing,” “voice data for the PTT voice communication is received through the wireless transceiver . . . [and] processed so that audible voice signals are heard from the speaker of the mobile station.” Ex-1002 [0068]; Ex-1006 ¶ 122.

- h. **selectively render the incoming message in a time-shifted mode, wherein the time shifted mode involves rendering the incoming message after the incoming message has been received and stored;**

Munje instructs that the embeddable communications software module may **selectively render the incoming message in a time-shifted mode**, wherein the time shifted mode involves **rendering the incoming message after the incoming message has been received and stored**. Ex-1006 ¶¶ 123–125. *Munje* teaches that one “switch configuration” enables “the *listening of previously recorded* voice from memory.” Ex-1002 [0054]; *see also id.* [0008] (benefit of invention is that “PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user.”).

Munje teaches that **the embeddable communications software module is arranged to selectively render the incoming message** in a time-shifted mode because “in response to detecting a user actuation of the PTT replay switch, *the processor causes* the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Ex-1002; *see also id.* Fig. 4, Claims 10, 19, 20, [0080]; Ex-1006 ¶, 125.

- i. **determine whether to render the incoming message in the near real time mode or the time-shifted mode based at least in part on the incoming message behavior policy,**

Munje discloses that the embeddable communications software module determines whether to render the incoming message in near real-time mode or time-shifted mode, **based at least in part on the incoming message behavior policy**. Ex-1006 ¶¶ 126–128. *Munje* teaches that the claimed mobile station enables “three different switch configurations depending on the desired operation.” Ex-1002 [0054]. Those switch configurations include enabling “the conventional listening of voice with simultaneous recording” (**near real time mode**) as well as “listening of previously recorded voice” (**time-shifted mode**). *Id.* *Munje* further teaches that the **determination** of whether or not a live conventional voice message will be recorded for later play back in a time-shifted mode is “an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station.” *Id.* [0068]. “If the processor identifies that the recording feature is not enabled ..., then conventional PTT voice communication processing is performed.” *Id.*; *see also id.* Fig. 6, Claims 10, 19. Further, *Munje* claims that the retrieval and replaying of a previously recorded and stored message occurs “in response to detecting a user actuation of a switch.” *Id.* Claim 20.

- j. **wherein the software application is separate from the communication system that is accessed through the embeddable communications software module.**

Munje teaches that the **software application is separate from the communication system** that is accessed through the embeddable communications software module. Ex-1006 ¶ 129–131. *Munje* discloses that the claimed “mobile station” and its implementing software is separate from the communication system accessed by that mobile station. *See, e.g.*, Ex-1002 [0010] (Figure 1 is “a block diagram which illustrates pertinent components of a mobile station and *a wireless communication network*”), [0080] (“*A wireless communication system* of the present application includes a wireless communication network”), [0026] (detailing use of the invention for “communicat[ion] in and *through* wireless *communication network*” such as a “cellular telecommunications network”), [0035]; *see also* discussion *supra* at Section 1XA1a; Ex-1006 ¶ 130.

Moreover, *Munje* discloses that the **communication system is accessed through the embeddable communications software module**. *See* Ex-1002 Claim 10 (“the wireless transceiver being operative to: receive a PTT key message” switch and then “receive voice data of a PTT voice communication following the PTT key message.”), Claim 19 (claim includes software implementation of wireless transceiver), [0068], Fig. 6; Ex-1006 ¶ 131. “After PTT switch [] depression, audible voice signals are received at the microphone of the mobile

station and voice signals are *transmitted through the wireless network* and heard at certain other mobile stations.” Ex-1002 [0060], Fig. 6; Ex-1006 ¶ 131.

2. Claim 5: An embeddable communications software module as recited in claim 1 wherein the embeddable communications software module is further arranged to:

- a. receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient;**

Munje discloses that the embeddable communications software module is arranged to **receive recipient identity information** from the software application, recipient identity information indicating an identity of a message recipient. Ex-1006 ¶¶ 132–135. *Munje* teaches “[a]n access list . . . used by the end user,” in which the “access list contains end user defined identities of other end users or groups.” Ex-1002 [0045]. *Munje* instructs that these “end users may initiate PoC [Push-to-Talk over Cellular]” communications by using the “interface” software application and clicking “accept-contact”; the contact “contains either the *pre-configured ad-hoc identity* (for instant personal talk and ad-hoc instant group) or a group identity (for instant group talk or chat group talk).” *Id.* [0049]. Accordingly, *Munje* discloses **message recipient identity information**. Ex-1006 ¶ 133.

Munje additionally discloses that the embeddable communications software **module receives this recipient identity information from the software**

application. Ex-1006 ¶ 134. For example, *Munje* discloses that incoming PTT Voice Data and “*Sender Identification*” is stored by the module, as reflected in Figure 6. A POSITA also have understood that users interact with the user interface, Ex-1002 [0049], and the user interface communicates with the embeddable communications software module to initiate voice calls. Ex-1002 [0060]; Ex-1006 ¶ 134. The embeddable communications software module is configured to make and record outgoing calls as well as receive incoming calls. *See* Sections IXA1d, IXA2b–IXA2d. Thus, a POSITA would have understood that a recipient’s identity, once **provided by the user to the software application**, would be received by the embeddable communications software module and available for later use. Ex-1006 ¶ 135.

To the extent *Munje* does not make explicit or obvious that the embeddable communications software module is arranged to receive recipient identity information from the software application, it does so in combination with *Rand*. *Id.* ¶ 136.

Rationale and Motivation to Combine

As detailed in Section IXA1b, a POSITA would have been motivated to extend or combine *Munje* with the functionality described in *Rand* because they are both in the *same field of endeavor* (PTT voice communications), address the *same problem* (recording and playback of PTT communications), and offer *similar*

solutions (an embeddable communications software module that allows a software application to access a communications system for PTT communications).

Rand discloses that the user interface software application displays message recipient identity information in Figures 1A and 2A:

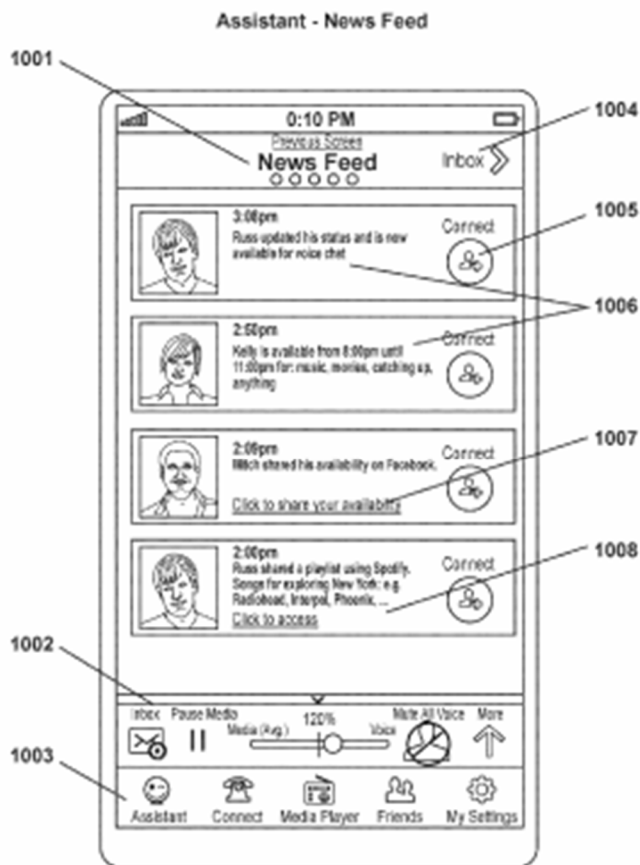


FIG. 1A

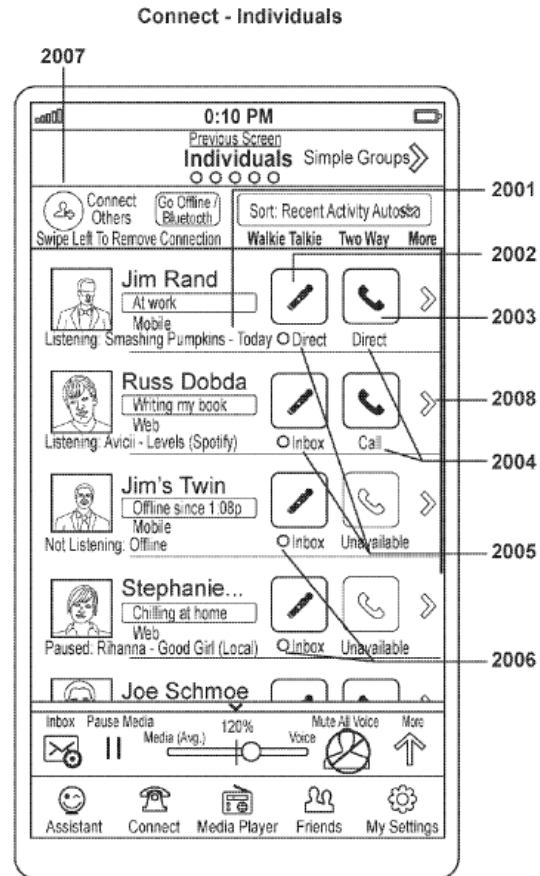


FIG. 2A

Ex-1003 Figs. 1A, 2A; *see also id.* Figs. 1B, 2C, 3A; Ex-1006 ¶ 138. Thus, *Rand* discloses a software application that receives user input, including recipient identity information that indicates an identity of a message recipient. Ex-1006 ¶ 138.

A POSITA would have been motivated to extend *Munje*'s system to provide the same functionality taught in *Rand* in terms of receiving recipient identity information from a software application. *Id.* ¶ 139. Such functionality would allow the users of *Munje*'s invention use of software application to specify recipients for outgoing calls. *Id.* It would have been obvious to modify *Munje* such that the module receives the message recipient identity from the software application, as disclosed in *Rand*, as the two systems address similar technical challenges for the same application domain. *Id.*

Moreover, such combination could have been implemented without undue experimentation in any of various ways well known in the art. *Id.* ¶ 140. A POSTIA would have recognized that *Munje*'s claimed invention is already enabled to initiate calls. *Id.* Further, a POSITA would have understood that combining *Munje*'s outgoing calls with *Rand*'s disclosure of the module's receipt of recipient information from a software application would have required nothing more than the application of a known technique to a known product ready for improvement. *Id.*

b. record outgoing media created by a user;

Munje discloses that the embeddable communications software module is arranged to enable the **recording of outgoing media created by the user**. Ex-1006 ¶ 141. *Munje* teaches that upon a user's "PTT button depression, *the*

processor causes the voice data of the PTT voice transmission to be ***stored in the memory*** simultaneously with its transmission.” Ex-1002 [0074]; *see also id.* Claim 10 (“processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory”); Ex-1006 ¶ 141.

- c. **progressively transmit the outgoing media to [a] remote device while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application; and**

Munje discloses that **the embeddable communications software module progressively transmits outgoing media to a remote device while the outgoing media is being created** by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application. Ex-1006 ¶ 142–144. *Munje* discloses that upon a user’s “PTT button depression, the processor causes the ***voice data of the PTT voice transmission*** to be stored in the memory ***simultaneously with its transmission.***” Ex-1002 [0074]; *see also* [0049] (“end users may ***initiate*** PoC [Push-to-Talk over Cellular]” ***communications***”); Ex-1006 ¶ 143.

Moreover, as detailed in Section IXA2a *supra*, *Munje* discloses that a message recipient of the outgoing media is **identified by the recipient identity information received from the software application**; to the extent *Munje* does

not make explicit or obvious that the embeddable communications software module is arranged to receive recipient identity information from the software application, it does so in combination with *Rand*.

- d. **progressively store the outgoing media while the outgoing media is being created and transmitted.**

Munje discloses that the embeddable communications software module enables **progressive storage of outgoing media while the outgoing media is being created and transmitted**. Ex-1006 ¶ 145–146. *Munje* teaches that upon a user’s “PTT button depression, the processor causes the voice data of the PTT voice transmission to be *stored in the memory simultaneously with its transmission*.” Ex-1002 [0074].

3. Claim 12:

- a. **An embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium wherein the embeddable communications software module is arranged to:**

Munje discloses an embeddable communications software module that allows a software application to access a communications system providing both time delayed and real time communication, which is stored in a non-transitory tangible computer readable storage medium. *See* Section IXA1a, *supra*.

- b. provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication module and the software application communicate through the API;**

Munje discloses an API that allows the embeddable communications software module to receive API inputs from the software application, and thus, the embeddable communications software module and the software application communicate through the API; to the extent that *Munje* does not render obvious that the module and the software application communicate through the API, it does so in combination with *Rand*. See Section IXA1b, *supra*.

- c. receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient;**

Munje discloses that the embeddable communications software module is arranged to receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient; to the extent *Munje* does not make explicit or obvious that the embeddable communications software module is arranged to receive recipient identity information from the software application, it does so in combination with *Rand*. See Section IXA2a, *supra*.

d. record outgoing media created by a user,

Munje discloses that the embeddable communications software module records outgoing media created by the user. *See* Section IXA2b, *supra*.

e. progressively transmit the outgoing media to a remote communications device associated with the message recipient while the outgoing media is being created by the user, wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application; and

Munje discloses that the embeddable communications software module progressively transmits outgoing media to a remote communications device associated with the message recipient while the outgoing media is being created by the user, wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application. *See* Section IXA2c, *supra*.

Munje additionally discloses that the outgoing message is progressively transmitted **to a remote communications device associated with the message recipient**. Ex-1006 ¶ 153. For example, *Munje* discloses that “[e]nd users may initiate PoC [Push-to-Talk over Cellular]” communications by using the “interface” software application and clicking “accept-contact”; the contact “contains either the pre-configured ad-hoc identity (for instant personal talk and ad-hoc instant group) or a group identity (for instant group talk or chat group

talk).” Ex-1003 [0049]. Thus, *Munje* instructs that a user may progressively transmit outgoing media to a remote communications device associated with a particular message recipient. Ex-1006 ¶ 153; *see also* Section IXA2c, *supra*.

f. progressively store the outgoing media while the outgoing media is being created and transmitted,

Munje discloses that the embeddable communications software module progressively stores outgoing media while the outgoing media is being created and transmitted. *See* IXA2d, *supra*.

g. wherein the software application is separate from the communication system that is accessed through the embeddable communications software module.

Munje discloses that the software application is separate from the communication system that is accessed through the embeddable communications software module. *See* Section IXA1j, *supra*.

B. Ground 2: Obviousness of Claims 1, 5, and 12 in view of *Bulthuis* and *Pelttari*

For the reasons explained in detail below, *Bulthuis* combined with *Pelttari* renders obvious claims 1, 5, and 12 of the '028 patent.

1. Claim 1

- a. **An embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium, wherein the embeddable communications software module is arranged to:**

Bulthuis discloses the preamble of Claim 1. Ex-1006 ¶¶ 157–162. *Bulthuis* discloses **an embeddable communications software module that allows software applications to access a communications system**. *Id.* *Bulthuis* explains that the claimed “invention uses a **module** with a storage for coupling with the communication device for enabling recording of the real time communication,” and this module (contained in the “consumer electronics communication device”) is **embeddable** as it “is **controllable** via a user-interface of the device,” Ex-1004 4:20–30, 2:8–9; *see also id.* Claim 18 (claimed invention includes “a software application enabling a programmable device when executing said software application to function as a device.”); Ex-1006 ¶ 158.

Bulthuis also teaches that the claimed module enables **accessing a communications system**. Ex-1004 ¶ 159. For example, the invention in *Bulthuis* is directed at facilitating communications via consumer electronics devices, where “[t]he term ‘**communication**’ shall be used [] to include telephone calls, whether

audio, video, or multimedia in nature, and whether or not occurring via conventional telephonic devices or via the Internet or another data network.” *Id.* 5:15–17. *Bulthuis* explains that “a certain key or pattern of keys is reserved for user-interaction with the module to implement, e.g., scrolling through the communication stored on the module, or replaying the communication most recently recorded, or to activate the recording during a real time **communication** upon a user input.” *Id.* 4:20–27.

Bulthuis additionally discloses **software applications**, Ex-1004 11:9–17, Claim 18, and user interfaces for interacting with the device. *Id.* 2:8–20, 4:4–6, 7:16–17); Ex-1006 ¶ 160. A POSITA would have understood that the user interfaces disclosed in *Bulthuis* would be implemented as part of a **software application** that executes on the mobile device. Ex-1006 ¶ 160.

Bulthuis further teaches **providing both time delayed and near real time communication**. Ex-1006 ¶ 161. For instance, *Bulthuis* discloses “a first functionality adapted to enable **real-time communication** via the device.” Ex-1004 2:9–10. *Bulthuis* also describes “a second functionality to enable **recording** of the real time communication.” *Id.* 2:10–11. And the device “comprises a last-communication rewind mechanism for **replay** of at least a part, e.g., the last 5 minutes, of the communication recorded most recently.” *Id.* 3:10–11.

Additionally, *Bulthuis* discloses that the module **is stored in a non-transitory tangible computer readable storage medium**. Ex-1006 ¶ 162. For example, *Bulthuis* explains that the “invention [] relates to a storage medium readable by a data processing device. The medium carries software adapted to perform operations[.]” Ex-1004 4:31–5:3. Thus, the non-transitory storage medium carries the module. Ex-1006 ¶ 162; *see also* Ex-1004 2:25–28 (also disclosing that the device has “onboard storage,” such as “a solid state memory card/module or a HDD module with a small form factor that stores a copy of the communication or conversation conducted in real time”). A POSITA would have understood this discloses that the invention is stored in a non-transitory tangible computer readable storage medium because the claimed functionality would need to survive device power cycles. Ex-1006 ¶ 162.

- b. provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication software module and the software application communicating through the API;**

Bulthuis, both alone and in view of *Pelttari*, discloses this claim limitation.

Bulthuis teaches the **embeddable communications software module** (the “module with storage”) communicates with the **software application** (the “user

interface”) by way of “inputs,” or **API inputs** associated with **an API**. Ex-1006 ¶ 163.

Bulthuis teaches that the invention’s “module with a storage for coupling with the communication device for enabling recording of the real time communication” is “[p]referably ... controllable via a user-interface of the device....” Ex-1004 4:20–23. That user interface (i.e., the **software application**) exchanges information with the **module**, including **inputs** to the module. *See, e.g.*, Ex-1004 4:5–6 (“user interface ... then enables the subscriber to select the mode of organization or representation”), 2:11–15 (“the first functionality comprises at least one user interface mechanism for providing real-time audio and/or visual information to a user and to receive real-time audio and/or visual **information** from the user,” and “a user input to enable the user to select a portion of the real time communication for recording”); *see also id.* 4:32–5:1, 10:12–13. This interaction between a user interface and a software module that provides communication services is further disclosed in a patent application that is expressly incorporated in *Bulthuis*. *Id.* 1:5–8, citing U.S. Pat. App. Ser. No. 09/780,229 Filed 2/9/01 (Ex-1010); Ex-1006 ¶ 165. The ’229 application states that the described user interface “provides output to software performing an action based on the user selection.” Ex-1010 7:28–29.

An **API** was a commonly used mechanism to integrate multiple software components, and the use of **APIs** to do so was regular industry practice long before the *Bulthuis* disclosure. Ex-1006 ¶ 166. It therefore would have been obvious to a POSITA, even without resorting to the disclosure of any other reference, to modify *Bulthuis* to use an **API** to facilitate the communication of information between the module and the user interface so that they communicate “*through the API*.” *Id.*

Moreover, if *Bulthuis* alone does not expressly disclose or render obvious this limitation, it does so in combination with *Pelttari*. Ex-1006 ¶ 167. *Pelttari* discloses the use of an **API** in software to facilitate the processing of incoming communications over a communications system. Ex-1005 [0102]; Ex-1006 ¶ 167. For example, *Pelttari* claims “computer readable program code for receiving an audio call request including identification parameters relating to a category pertaining to content of said audio call for one or more recipients...” Ex-1005 [0115]. These “predefined parameters” may be associated with a “known **API** which designates *identifiers* to services including audio content delivery.” *Id.* [0076], [0045]; Ex-1006 ¶ 168.

Rationale and Motivation to Combine

A POSITA would have been motivated to combine *Bulthuis* and *Pelttari* for a number of reasons. Ex-1006 ¶ 169.

Bulthuis and *Pelttari* are in the ***same field of art***, namely processing and recording real-time communications, such as audio and video, transmitted across wireless communications networks. Ex-1006 ¶ 170; *compare* Ex-1004 1:29–2:1 (“The invention therefore records real time communications and stores them as data to enable people or data processing systems to retrieve them.”) *with* Ex-1005 [0012] (disclosing a “recipient communication terminal, comprising a receiver configured to automatically identify and accept an incoming audio call over a telephony channel”). Moreover, both references are directed to the same endeavor—software applications that can be configured to automatically record real-time communication between mobile device users. Ex-1006 ¶ 170; Ex-1004 Abstract, 1:13–14, 1:20–21, Claim 18; Ex-1005 [0002], [0012], [0020], [0040].

Both *Bulthuis* and *Pelttari* also ***address similar technical challenges for the same application domain***. In particular, both references disclose software applications with which the user interacts. Ex-1006 ¶ 171; Ex-1004 4:31–5:3; Claim 18; Ex-1005 [0078], [0080], [0105], [0125]. *Pelttari* provides detail on how such a software application may be arranged and how it can use a well-defined API to access communication and related services. Ex-1006 ¶ 171; Ex-1005 [0045], [0076], [0077], [0102]. It would have been obvious to a POSITA implementing *Bulthuis*’s invention to consider the teachings of *Pelttari*. Ex-1006 ¶ 171.

A POSITA reviewing *Bulthuis*'s software application would have been motivated to modify *Bulthuis*'s application to use standard APIs to access communication and audio functionality. Ex-1006 ¶ 172. Indeed, the use of a standard API was well known and is the standard mechanism by which applications were structured. *Id.* *Bulthuis* explicitly envisions that its invention would be coupled to multiple different applications. Ex-1004 11:10–17. A POSITA would have known that it was common for multiple applications to access the same functionality using an API. Ex-1006 ¶ 173. It would have been obvious to a POSITA to adapt *Bulthuis*'s system to use an API to access communications and audio functionality, and that such a combination could have been implemented without undue experimentation in any of various ways well known in the art. *Id.* A POSITA would have understood that extending *Bulthuis*'s software application with *Pelttari*'s disclosure of APIs would have required nothing more than the application of a known technique to a known product ready for improvement. *Id.*

- c. **receive an incoming message behavior policy from the software application, wherein the incoming message behavior policy controls how the embeddable communications software module responds to incoming messages;**

Bulthuis also discloses the claimed embeddable communications software module arranged to **receive an incoming message behavior policy from the software application**, where the policy **controls how the embeddable**

communications software module responds to an incoming message. Ex-1006

¶¶ 174–176. For example, *Bulthuis* discloses **policies** “compris[ing] enabling automatic, or default, recording of at least part of a real-time communication between at least two subscribers,” Ex-1004 3:24–27; requiring the module to “forward the recording to a remote destination, e.g., determined by default or specified by the user or the communication system,” *id.* 5:1–3; profiling information such as “Caller-ID and other profiling information (e.g., time of day) . . . [that] may be used to select for which communications to skip the recording or to explicitly carry out the recording,” *id.* 9:28–30; and “Opting out . . . the form of pressing of the button [] by the user.” *Id.* 6:21–25; Ex-1006 ¶ 175. And *Bulthuis* discloses a “rewind” feature that facilitates “*replay* of at least part of the communication recorded most recently.” Ex-1004 Claim 8.

Bulthuis discloses that these **incoming message behavior policies** are received by the claimed module from the **software application** user interface. Specifically, *Bulthuis* teaches that the user provides inputs, either using hardware buttons or in a programmatic manner, to specify various message behavior policies. Ex-1004 6:21–25 (“Opting out may be in the form of pressing of the button [] by the user.” “Or, there may be a programmable opt out option[.]”), 3:4–9, 5:24–28, Claim 7. A POSITA would have understood that users interact with and provide policy-setting inputs to a user interface, that the inputs are received by

the claimed module, and that the user interface is part of the software application executing on a mobile device. Ex-1006 ¶ 176.

d. receive an incoming message from an [sic] remote communications device;

Bulthuis discloses the embeddable communications software module **receives an incoming message from a** “consumer electronics communication device” acting as the **remote communications device**. Ex-1006 ¶ 177; Ex-1004 4:31–34 (“The invention also relates to a storage medium ... [which] carries software adapted to perform operations comprising: detecting initiation or acceptance of a live communication by a user of a consumer electronics communication device.”), Abstract (“Recording is started when a communication is initiated, either by the user making or accepting a call, or when a user presses a button”), 1:29–2:1 (“The invention therefore records real time communications....”).

e. progressively store the incoming message as it is received

Bulthuis likewise discloses that the embeddable communications software module **progressively stores the incoming message as it is received**. Ex-1006 ¶ 178. *Bulthuis* teaches that “[r]ecording is started when a communication is initiated, either by the user making or accepting a call, or when a user presses a button.” Ex-1004 Abstract, 1:20–21. **Progressive storage of an incoming**

message is further illustrated in what *Bulthuis* calls the “last-communication rewind mechanism.” *Id.* 3:10. This mechanism stores “the last N minutes” of a conversation “through a circular buffer that starts overwriting itself when full.” *Id.* 3:16–17 According to *Bulthuis*, the storage contemplated by the invention is contained with the subject “module.” *Id.* 4:20–23; Ex-1006 ¶ 178.

f. in response to the received message, send a notification to the software application based on the incoming message behavior policy

Bulthuis in view of *Pelttari* renders this limitation obvious. Ex-1006 ¶¶ 179–184.

Pelttari teaches **sending a notification to a software application based on an incoming message behavior policy** in the form of an “alert.” Ex-1005 [0044], [0077], [0079]; Ex-1006 ¶ 180. For example, such an alert “may be produced informing the user of the arrival of new audio content.” Ex-1005 [0079], [0044], [0077]. *Pelttari* discloses that the notification is sent by the module. *Id.* 4:23–24 (“a certain key or pattern of keys is reserved for user-interaction with the module to implement[.]”); *see also id.* Claims 14, 19 (claims which do not assert user interface as a limitation but do assert producing “an alert” as a limitation).

Rationale and Motivation to Combine

In addition to the motivations explained in Section IXB1b, *supra*, a POSITA would have been motivated to implement *Bulthuis*’s system according to and

informed by *Pelttari*'s teaching because both these references disclose a user interface that can be operated to access recorded calls. Ex-1006 ¶ 181. *Compare* Ex-1004 2:11–13, 10:12–13; *with* Ex-1005 [0047], [0080], Claim 66.

Pelttari further discloses that a user may be alerted when an incoming call has been recorded and if the device exhausts storage space. Ex-1005 [0047], [0077], [0079], [0113], Claim 9. A POSITA reviewing *Bulthuis* would have been motivated to extend *Bulthuis*'s system to provide the same functionality described in *Pelttari*, namely adding an alert to the *Bulthuis* user interface upon recording of a new call, because such an implementation would enable the users of *Bulthuis*'s system to be notified of incoming calls that have been recorded without user intervention. Ex-1006 ¶ 182.

Indeed, such a functionality was well known for voice mail, which is explicitly disclosed in *Bulthuis*. Ex-1004 1:14–15, 6:10–13, 8:3–5; Ex-1006 ¶ 183. It would have been obvious to a POSITA to adapt *Bulthuis*'s system to provide this functionality, and that such a combination could have been implemented without undue experimentation in any of various ways well known in the art. Ex-1006 ¶ 183.

A skilled artisan would have recognized, for instance, that *Bulthuis*'s device is already enabled to selectively record and store incoming and outgoing calls, and that *Bulthuis*'s system already provides a user interface for the user to interact with

recorded calls. Ex-1006 ¶ 184; Ex-1004 1:14–15, 1:20–21, 1:25–2:1, 2:25–28, 6:10–13, 6:32–34, 8:1–7. A POSITA would have understood that *Bulthuis*’s device could further be augmented to notify the user, via the user interface in the software application, when a new call has been recorded. Ex-1006 ¶ 184. Additionally, a POSITA would have understood that combining *Bulthuis*’s user interface with *Pelttari*’s disclosure of a user notification upon call recording would have required nothing more than the application of a known technique to a known product ready for improvement. *Id.*

- g. selectively render the incoming message in a near real time mode, wherein the near real time mode involves progressively rendering the incoming message as it is received;**

Bulthuis discloses **selectively rendering the incoming message in a near real time mode**, where the near real time mode involves **progressively rendering the incoming message as it is received**. Ex-1006 ¶¶ 185–186.

For example, *Bulthuis* discloses that the claimed system “has a first functionality adapted to enable real-time communication via the device.” Ex-1004 2:9–13. Real time communication via a device involves **progressively rendering an incoming message as it is received**. Ex-1006 ¶ 186. The “module” in *Bulthuis* performs various functions as dictated by user input to a user interface, including “recording during a real time communication.” Ex-1004 4:20–30.

- h. **selectively render the incoming message in a time-shifted mode, wherein the time shifted mode involves rendering the incoming message after the incoming message has been received and stored; and**

Bulthuis also discloses **selectively rendering the incoming message in a time-shifted mode**, so that it is **rendered after the incoming message has been received and stored**. Ex-1006 ¶ 187–189.

Bulthuis discloses that the “second functionality” of the claimed device is to “enable **recording** of the real time communication.” Ex-1004 2:10–11; Ex-1006 ¶ 188. For example, *Bulthuis* discloses that “[p]referably, the device comprises at least one organizational mechanism for organizing the **recorded communications** in a **retrievable form** for the user.” Ex-1004 2:21–24.

Bulthuis further explains how in the disclosed invention “a ‘last conversation rewind’ feature may be implemented. Such a feature may be activatable, for instance, by button 106, and would allow a user to **replay** the conversation most recently recorded.” *Id.* 7:28–30; *see also id.* 1:22–25 (discussing advantages of playing a message in such a time-shifted mode); 4:20–30 (claimed module “replay[s]” recorded communications); Ex-1006 ¶ 189.

- i. **determine whether to render the incoming message in the near real time mode or the time-shifted mode based at least in part on the incoming message behavior policy,**

Bulthuis discloses that the embeddable communications software can be arranged to **determine whether to render the incoming message in the near real time mode or the time-shifted mode based at least in part on the incoming message behavior policy.** Ex-1006 ¶¶ 190–192.

For example, *Bulthuis* expressly discloses that a **policy** such as “Caller-ID and other profiling information (*e.g.*, time of day) . . . may be used to select for which communications to *skip the recording or to explicitly carry out the recording.*” Ex-1004 9:27–30. And *Bulthuis* discloses a “rewind” feature that facilitates “*replay* of at least part of the communication recorded most recently.” *Id.* Claim 8; Ex-1006 ¶ 191.

Bulthuis also discloses a **policy** “adapted to enable real-time communication via the device,” Ex-1004 Claim 1, “comprising a user input to enable the user to select a portion of the *real-time communication for the recording.*” *Id.* Claim 3; *see also id.* Claim 10 (disclosing “enabling recording of at least part of a real-time communication between at least two subscribers), 5:19–30 (disclosing “real-time communications devices”); Ex-1006 ¶ 192.

- j. **wherein the software application is separate from the communication system that is accessed through the embeddable communications software module.**

Bulthuis discloses that the **software application is separate from the communication system** that is accessed through the embeddable communications software module. Ex-1006 ¶ 193. *Bulthuis* enables communications on “consumer electronics communication device[s]” such as a “mobile phone,” a “video phone,” or “other real-time communications devices,” with such communications transmitted “via the Internet or another data network.” Ex-1004 2:8–9, 5:15–23. The Internet and conventional telephone networks are communications systems that are separate from the device claimed in *Bulthuis*. Ex-1006 ¶ 193.

2. **Claim 5: An embeddable communications software module as recited in claim 1 wherein the embeddable communications software module is further arranged to:**

- a. **receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient;**

Bulthuis teaches that the embeddable communications software module **receives recipient identity information from the software application, which indicates an identity of a message recipient.** Ex-1006 ¶¶ 194–196.

Bulthuis discloses that **recipient identity information** is obtained and used for purposes of sending messages. Ex-1006 ¶ 195. For example, *Bulthuis* teaches that “when a communication is initiated, either by the user making or accepting a

call, or when a user presses a button,” the user can “***forward***” recordings of the call to an identified “***remote user***.” Ex-1004 Abstract. Additionally, *Bulthuis* discloses that the invention can be arranged to “forward the recording to a remote destination, e.g., determined by default or ***specified by the user or the communication system***.” *Id.* 5:1–3. See also *id.* 7:9.

Further, the recipient identity information is **provided from the software application**, as *Bulthuis* discloses that users may initiate phone calls to the recipients. *Id.* 6:8–15 (teaching that a user may make a phone call), 8:11–15 (same), 8:16–18 (same). As detailed in Sections IXB1a–c, f, g, *supra*, a POSITA would have understood that users interact with a user interface that is part of a software application executing on the mobile device claimed in *Bulthuis*. Therefore, the user must specify the identity of the intended recipient to the software application, and this information is conveyed by the user-interface (that is part of the software application) to the embedded communications software module to initiate and record calls pursuant to *Bulthuis*. Ex-1006 ¶ 196.

If *Bulthuis* alone does not expressly disclose this limitation, it does in combination with *Pelttari*. Ex-1006 ¶¶ 197–200. *Pelttari* teaches the receipt of “an audio call request ***including identification parameters*** relating to a category pertaining to content of said audio call ***for one or more recipients***, storing audio content of the audio call request, determining the location of each recipient. . . .”

Ex-1005 [0016]; *see also id.* [0115] (disclosing “computer readable program code for automatically determining the location of each recipient, computer readable program code for initiating an audio call, and computer readable program code for retrieving and transmitting stored audio content and ***identification parameters*** after the audio call has been initiated.”). These identification parameters can be obtained from the software application, e.g. the “address book,” *id.* [0125], or a “contact information storage unit,” *id.* [0078], or “[t]he computer program product may further comprise computer readable program code for receiving the identity of one of more recipients.” *Id.* [0116]; Ex-1006 ¶ 198. And, it is obvious that the recipient identity information would be conveyed to the module as *Pelttari* discloses that the module initiates and receives calls, *inter alia*. Ex-1005 [0115], [0125]; Ex-1006 ¶ 198.

Rationale and Motivation to Combine

As discussed above, *Pelttari* discloses a software application that receives user input, including recipient identity information that indicates an identity of a message recipient that is conveyed to the claimed module; moreover, *Bulthuis* discloses that users may initiate calls, and users in *Bulthuis* also interact with software applications to initiate calls. To the extent it is not explicit in *Bulthuis*, it would have been obvious to modify *Bulthuis* such that the module receives recipient identity information from the software application in *Bulthuis* as

disclosed in *Pelttari*, as the two systems address similar technical challenges for the same application domain. Ex-1006 ¶ 199. A POSITA reviewing *Bulthuis*'s invention would have been motivated to extend the system in *Bulthuis* to provide the same functionality of *Pelttari* in terms of receiving recipient identity information from a software application. *Id.* Such functionality would allow users of *Bulthuis*'s system the ability to access a software application to specify recipients for outgoing calls. *Id.*

Moreover, this combination could be implemented without undue experimentation in any of various ways well known in the art. *Id.* ¶ 200. A POSITA would have recognized, for instance, that *Bulthuis*'s claimed device is already enabled to initiate calls. *Id.* Further, a POSITA would have understood that combining *Bulthuis*'s outgoing calls with *Pelttari*'s disclosure of receipt by the module of recipient information from a software application would have required nothing more than the application of a known technique to a known product ready for improvement. *Id.*

b. record outgoing media created by a user;

Bulthuis discloses **recording outgoing media created by the user**. Ex-1006 ¶ 201. For example, *Bulthuis* teaches “***automatically recording real-time communication in response to a user*** initiating or ***accepting*** the real-time communication.” Ex-1004 1:20–21.

- c. **progressively transmit the outgoing media to a remote device while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application; and**

Bulthuis likewise discloses that the embeddable communications software module recited in Claim 1 is arranged to **progressively transmit the outgoing media to a remote device while the outgoing media is being created by the user**. Ex-1006 ¶¶ 202–204. *Bulthuis* teaches that “[a] consumer electronics device, such as a cell phone, is designed to record real time communications occurring on it. Recording is started when a communication is initiated, either by the user making or accepting a call, or when a user presses a button...” Ex-1004 Abstract, 1:20–21. Because the communication is in real time, it is being progressively transmitted while it is being created. Ex-1006 ¶ 203.

As discussed above, the recipient of the outgoing media is identified by the recipient identity information received from the software application; to the extent *Bulthuis* does not render this limitation obvious, it does so in combination with *Pelttari*. See *supra* at IXB2a.

- d. **progressively store the outgoing media while the outgoing media is being created and transmitted.**

Bulthuis teaches that the embeddable communications software module recited in Claim 1 is arranged to **progressively store the outgoing media while it**

is being created and transmitted. Ex-1006 ¶ 205. *Bulthuis* discloses that “[a] consumer electronics device, such as a cell phone, is designed to record real time communications occurring on it. ***Recording is started when a communication is initiated***, either ***by the user making*** or accepting ***a call***, or when a user presses a button. Recordings are stored and organized for ease of retrieval. Recordings can be forwarded to a remote user.” Ex-1004 Abstract.

3. Claim 12:

- a. An embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium wherein the embeddable communications software module is arranged to:**

Bulthuis discloses an embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real time communication, which is stored in a non-transitory tangible computer readable storage medium. *See* Section IXB1a, *supra*.

- b. provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication module and the software application communicate through the API;**

Bulthuis, or *Bulthuis* in combination with *Pelttari*, discloses or renders obvious an API that allows the embeddable communications software module to receive API inputs from the software application; thus, the embeddable communications software module and the software application communicate through the API. *See* Section IXB1b, *supra*.

- c. receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient;**

Bulthuis, or *Bulthuis* in combination with *Pelttari*, discloses or renders obvious that the embeddable communications software module is arranged to receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. *See* Section IXB2a, *supra*.

- d. record outgoing media created by a user,**

Bulthuis discloses that the embeddable communications software module records outgoing media created by the user. *See* Section IXB2b, *supra*.

- e. **progressively transmit the outgoing media to a remote communications device associated with the message recipient while the outgoing media is being created by the user, wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application; and**

Bulthuis discloses that the embeddable communications software module progressively transmits outgoing media to a remote communications device associated with the message recipient while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application. Ex-1006 ¶¶ 211–213. This claim limitation is the same as the limitation discussed in Section IXB2c, *supra*, except that it requires that the **remote communications device** be **associated with the message recipient**. See Sections IXB2a, IXB2c, *supra*. This modified limitation is also taught by *Bulthuis* in that *Bulthuis* teaches that the user of the claimed device can initiate a call to another user’s recipient phone, and can cause that audio call to be recorded as soon as “dial tones or ‘ringing’ tones are detected.” Ex-1004 8:11–18, Abstract, 6:14–15; Ex-1006 ¶ 213.

- f. progressively store the outgoing media while the outgoing media is being created and transmitted,**

Bulthuis discloses that the embeddable communications software module progressively stores outgoing media while the outgoing media is being created and transmitted. *See* Section IXB2d, *supra*.

- g. wherein the software application is separate from the communication system that is accessed through the embeddable communications software module.**

Bulthuis discloses that the software application is separate from the communication system that is accessed through the embeddable communications software module. *See* Section IXB1j, *supra*.

X. SECONDARY CONSIDERATIONS

Petitioner is unaware of any applicable secondary considerations of non-obviousness. Even if such considerations existed, they would be unable to overcome the strong *prima facie* case of obviousness set forth above. Should Patent Owner assert that secondary considerations of non-obviousness exist, Petitioner reserves the right to respond.

XI. DISCRETIONARY CONSIDERATIONS

A. Considerations under 35 U.S.C. § 314

Although concurrent district court litigation involving the '028 patent is ongoing, the Board should not deny institution under § 314(a) for multiple reasons.

First, Petitioner has not previously challenged any related patents based on the references in the Petition, nor were those references before the PTO during the original prosecution.

Second, Petitioner's counsel has worked diligently to locate and apply the references in this Petition and filed it before the statutory bar date of January 8, 2021.

Third, fact discovery in the Texas Litigation only began in October. While the district court and the parties have discussed a January 18, 2022 trial date, no order setting that as the trial date has issued.

Fourth, no motions have been filed to stay the Texas Litigation, and the speculative outcome of any such motion should not weigh in the balance of whether to institute the requested *inter partes* review.

Fifth, it is not clear whether trial in the Texas Litigation will occur before the date on which a Final Written Decision in this proceeding would be expected, particularly given the district court's voluminous patent case load and the impact of the ongoing COVID pandemic on court operations. Indeed, the district court already announced that the trial date will not occur in October 2021 as originally projected, *see* Ex-1009 and instead has contemplated a date in January 2022.

Sixth, this Petition asserts a non-overlapping set of claims for review from those being litigated in the Texas Litigation. Claim 1 is the subject of this Petition but is not being asserted by Patent Owner in the district court.

Finally, given the strength of the challenges to patentability presented in the Petition, denying this Petition under § 314(a) would be unfairly prejudicial to Petitioner.

B. Considerations under 35 U.S.C. § 325(d)

This Petition does not present a scenario in which the “same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). None of the prior art cited in this Petition was cited during prosecution of the ’028 patent.

XII. CONCLUSION

Petitioner respectfully requests that *inter partes* review of Claims 1, 5, and 12 of the ’028 patent be instituted and that the PTAB cancel those claims as unpatentable.

Dated: January 6, 2021

Respectfully submitted,

/s/ Eugene M. Paige

Eugene M. Paige

Reg. No. 55,519
Counsel for Facebook, Inc. and
Instagram, LLC

CERTIFICATE OF SERVICE ON PATENT OWNER
UNDER 37 C.F.R. § 42.105(A)

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(b), the undersigned certifies that, on January 6, 2021, a complete and entire copy of Petitioners' Petition for *Inter Partes* Review, Petitioners' Exhibit List, Petitioners' Power of Attorney in an *Inter Partes* Review, together with all supporting exhibits, was provided to the Patent Owner by sending a copy of the same via USPS Priority Mail Express to the following attorneys of record for the Patent Owner:

Beyer Law Group LLP / Voxer IP, P.O. Box 51887, Palo Alto CA 94303-1887

Courtesy copies have also been served via Federal Express upon counsel of record for Patent Owner in the litigation pending before the U.S. District Court for the Western District of Texas entitled *Voxer, Inc. and Voxer IP LLC v. Facebook, Inc. and Instagram, LLC*, Case No. 1:20-cv-00655 (W.D. Tex.). as follows:

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/s/ Eugene M. Paige

Eugene M. Paige
Reg. No. 55,519

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), I certify that this Petition complies with the type-volume limits of 37 C.F.R. § 42.24(a)(1)(i) because it contains 13,991 words, according to the word-processing system used to prepare this Petition, excluding the parts of this Petition that are exempted by 37 C.F.R. § 42.24(a).

Dated: January 6, 2021

/s/ Eugene M. Paige

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