UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS AMERICA, INC.
Petitioner

v.

UNILOC LUXEMBOURG, S.A.
Patent Owner

U.S. Patent No. 8,995,433

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,995,433

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No.	Description
1001	U.S. Patent No. 8,995,433
1002	Declaration of Dr. Zygmunt J. Haas
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1004	File History of U.S. Patent Application No. 14/224,125, which issued as U.S. Patent No. 8,995,433
1005	U.S. Patent No. 8,150,922 ("*Griffin*")
1006	International Published Application No. WO 01/11824A2 ("*Zydney*")
1007	U.S. Patent No. 6,725,228 ("*Clark*")
1008	International Published Application No. WO 02/17650A1 ("*Vaananen*")
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1014	U.S. Patent Application Publication No. 2002/0101848A1 ("*Lee*")
1015	U.S. Patent Application Publication No. 2002/0146097A1 ("*Vuori*")
1016	E. Levinson, *Request for Comments (RFC) 2387: The MIME Multipart/Related Content-type* (Aug. 1998)
1017	File History of U.S. Patent Application No. 13/546,673, which issued as U.S. Patent No. 8,724,622
1018	U.S. Patent No. 8,724,622
1019	File History of U.S. Patent Application No. 12/398,063, which issued as U.S. Patent No. 8,243,723
1020	U.S. Patent No. 8,243,723

[1] Citations to non-patent publications are to the original page numbers of the publication, and citations to U.S. patents are to column:line number of the patents.

1021	File History of U.S. Patent Application No. 10/740,030, which issued as U.S. Patent No. 7,535,890
1022	U.S. Patent No. 7,535,890
1023	Uniloc Patent Local Rule 4-2 Proposed Construction of Terms, Case No. 2:16-cv-00642-JRG (Lead) (E.D. Tex.)
1024	Harry Newton, *Newton's Telecom Dictionary* (16th. ed. 2000)
1025	John Rittinghouse, *IM Instant Messaging Security* (1st ed. 2005)
1026	Dreamtech Software Team, *Instant Messaging Systems: Cracking the Code* (2002)
1027	Upkar Varshney et al., *Voice over IP*, Communication of the ACM (2002, Vol. 45, No. 1)
1028	Iain Shigeoka, *Instant Messaging in Java: Jabber Protocols* (2002)
1029	Trushar Barot & Eytan Oren, *Guide to Chat Apps*, TOW Center for Digital Journalism, Columbia University (2005)
1030	Samir Chatterjee et al., *Instant Messaging and Presence Technologies for College Campuses*, IEEE Network (Nov. 9, 2005)
1031	Daniel Minoli & Emma Minoli, *Delivering Voice Over IP Networks* (2nd ed. 2002)
1032	Thomas Porter & Michael Gough, *How to Cheat at VoIP Security* (1st ed. 2007)
1033	Harry Newton, *Newton's Telecom Dictionary* (18th. ed. 2002)
1034	Justin Berg, *The IEEE 802.11 Standardization Its History, Specification, Implementations and Future*, George Mason University, Technical Report Series (2011)
1035	Wolter Lemstra & Vic Hayes, *Unlicensed Innovation: The Case of Wi-Fi*, Competition and Regulation in Network Industries (2008, Vol. 9, No. 2)
1036	U.S. Patent Application Publication No. 2003/0039340
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1038	U.S. Patent No. 9,179,495
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I. INTRODUCTION

Samsung Electronics America, Inc. ("Petitioner") requests *inter partes* review ("IPR") of Claims 1-5, 7-12, 14-17, 25, and 26 ("challenged claims") of U.S. Patent No. 8,995,433 ("the '433 Patent," Ex. 1001). According to PTO records, the '433 Patent is assigned to Uniloc Luxembourg, S.A. ("PO"). For the reasons set forth below, the challenged claims should be found unpatentable and canceled.

II. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

A. Real Party-in-Interest

Petitioner identifies the following as the real parties-in-interest: Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.

B. Related Matters

The '433 Patent is at issue in the following district court proceedings:

- *Uniloc USA, Inc. v. Kik Interactive, Inc.*, Case No. 2-17-cv-00481 (E.D. Tex.)
- *Uniloc USA, Inc. v. Hike Ltd.*, Case No. 2-17-cv-00475 (E.D. Tex.)
- *Uniloc USA, Inc. v. Google, Inc.*, Case No. 2-17-cv-00465 (E.D. Tex.)
- *Uniloc USA, Inc. v. Google, Inc.*, Case No. 2-17-cv-00466 (E.D. Tex.)
- *Uniloc USA, Inc. v. Google, Inc.*, Case No. 2-17-cv-00467 (E.D. Tex.)
- *Uniloc USA, Inc. v. Kik Interactive, Inc.*, Case No. 2-17-cv-00347 (E.D. Tex.)
- *Uniloc USA, Inc. v. Hike Ltd.*, Case No. 2-17-cv-00349 (E.D. Tex.)

- *Uniloc USA, Inc. v. Google, Inc.*, Case No. 2-17-cv-00231 (E.D. Tex.)
- *Uniloc USA, Inc. v. Google, Inc.*, Case No. 2-17-cv-00224 (E.D. Tex.)
- *Uniloc USA, Inc. v. Google, Inc.*, Case No. 2-17-cv-00214 (E.D. Tex.)
- *Uniloc USA, Inc. v. HeyWire, Inc.*, Case No. 2-16-cv-01313 (E.D. Tex.)
- *Uniloc USA, Inc. v. HTC Am., Inc.*, Case No. 2-16-cv-00989 (E.D. Tex.)
- *Uniloc USA, Inc. v. Kyocera Am., Inc*., Case No. 2-16-cv-00990 (E.D. Tex.)
- *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, Case No. 2-16-cv-00991 (E.D. Tex.)
- *Uniloc USA, Inc. v. Motorola Mobility LLC*, Case No. 2-16-cv-00992 (E.D. Tex.)
- *Uniloc USA, Inc. v. ZTE (USA), Inc.*, Case No. 2-16-cv-00993 (E.D. Tex.)
- *Uniloc USA, Inc. v. Huawei Device USA, Inc*., Case No. 2-16-cv-00994 (E.D. Tex.)
- *Uniloc USA, Inc. v. Telegram Messenger, LLP*, Case No. 2-16-cv-00892 (E.D. Tex.)
- *Uniloc USA, Inc. v. Vonage Holdings Corp.*, Case No. 2-16-cv-00893 (E.D. Tex.)
- *Uniloc USA, Inc. v. Avaya Inc*., Case No. 2-16-cv-00777 (E.D. Tex.)
- *Uniloc USA, Inc. v. ShoreTel, Inc*., Case No. 2-16-cv-00779 (E.D. Tex.)
- *Uniloc USA, Inc. v. AOL Inc*., Case No. 2-16-cv-00722 (E.D. Tex.)
- *Uniloc USA, Inc. v. BeeTalk Private Ltd*., Case No. 2-16-cv-00725 (E.D. Tex.)

- *Uniloc USA, Inc. v. Facebook, Inc.*, Case No. 2-16-cv-00728 (E.D. Tex.)
- *Uniloc USA, Inc. v. Green Tomato Ltd.*, Case No. 2-16-cv-00731 (E.D. Tex.)
- *Uniloc USA, Inc. v. Sony Interactive Entertainment LLC*, Case No. 2-16-cv-00732 (E.D. Tex.)
- *Uniloc USA, Inc. v. TangoMe, Inc. d/b/a Tango*, Case No. 2-16-cv-00733 (E.D. Tex.)
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- *Uniloc USA, Inc. v. Line Euro-Americas Corp.*, Case No. 2-16-cv-00641 (E.D. Tex.)
- *Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.*, Case No. 2-16-cv-00642 (E.D. Tex.)
- *Uniloc USA, Inc. v. Viber Media Sarl*, Case No. 2-16-cv-00643 (E.D. Tex.)
- *Uniloc USA, Inc. v. VoxerNet LLC*, Case No. 2-16-cv-00644 (E.D. Tex.)
- *Uniloc USA, Inc. v. WhatsApp, Inc.*, Case No. 2-16-cv-00645 (E.D. Tex.)

- *Uniloc USA, Inc. v. Tencent Am., LLC*, Case No. 2-16-cv-00577 (E.D. Tex.)

The '433 Patent has been challenged in the following IPRs:

- *Apple Inc. v. Uniloc Luxembourg S.A.*, IPR2017-00225
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01427
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01428
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01634
- *Snap Inc. v. Uniloc USA, Inc.*, IPR2017-01611

Petitioner also identifies the following administrative matters involving related applications and patents:

- U.S. Patent Application No. 14/633,057 ("the '057 Application), filed on February 26, 2015, now U.S. Patent No. 9,621,490 ("the '490 Patent")
- U.S. Patent Application No. 13/546,673 ("the '673 Application"), filed on July 11, 2012, now U.S. Patent No. 8,724,622 ("the '622 Patent")
- U.S. Patent Application No. 12/398,063 ("the '063 Application"), filed on March 4, 2009, now U.S. Patent No. 8,243,723 ("the '723 Patent")
- U.S. Patent Application No. 12/398,076 ("the '076 Application), filed on March 4, 2009, now U.S. Patent No. 8,199,747 ("the '747 Patent")
- U.S. Patent Application No. 10/740,030 ("the '030 Application"), filed on December 18, 2003, now U.S. Patent No. 7,535,890 ("the '890 Patent")
- *Apple Inc. v. Uniloc Luxembourg S.A.*, IPR2017-00223 (involving the '622 Patent)

- *Apple Inc. v. Uniloc Luxembourg S.A.*, IPR2017-00224 (involving the '622 Patent)
- *Apple Inc. v. Uniloc Luxembourg S.A.*, IPR2017-00222 (involving the '723 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01365 (involving the '723 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01257 (involving the '747 Patent)
- *Apple Inc. v. Uniloc Luxembourg S.A.*, IPR2017-00220 (involving the '890 Patent)
- *Apple Inc. v. Uniloc Luxembourg S.A.*, IPR2017-00221 (involving the '890 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01523 (involving the '890 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01524 (involving the '890 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01636 (involving the '890 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01635 (involving the '723 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01667 (involving the '622 Patent)
- *Facebook, Inc. v. Uniloc USA, Inc.*, IPR2017-01668 (involving the '622 Patent)
- *Snap Inc. v. Uniloc USA, Inc.*, IPR2017-01612 (involving the '890 Patent)

Petitioner is also filing IPRs challenging claims of the '890, '723, '747, and '622 Patents.

C. Counsel and Service Information

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III. PAYMENT OF FEES

The PTO is authorized to charge any fees due during this proceeding to Deposit Account No. 50-2613.

IV. GROUNDS FOR STANDING

Petitioner certifies that the '433 Patent is available for IPR, and that Petitioner is not barred or estopped from requesting IPR on the grounds identified below.

V. PRECISE RELIEF REQUESTED

Claims 1-5, 7-12, 14-17, 25, and 26 of the '433 Patent should be cancelled as unpatentable based on the following grounds:

Ground 1: Claims 1-3 and 8 are each obvious under pre-AIA 35 U.S.C. § 103(a) in view of U.S. Patent No. 8,150,922 ("*Griffin*") (Ex. 1005) and U.S. Patent No. 6,725,228 ("*Clark*") (Ex. 1007);

Ground 2: Claims 4 and 7 are each obvious under § 103(a) in view of *Griffin*, *Clark*, and International Patent Application No. WO 01/11824A2 ("*Zydney*") (Ex. 1006);

Ground 3: Claim 5 is obvious under § 103(a) in view of *Griffin*, *Clark*, and International Patent Application No. WO 02/17650A1 ("*Vaananen*") (Ex. 1008);

Ground 4: Claims 9, 11, 14-17, 25, and 26 are each obvious under § 103(a) in view of *Griffin* and *Zydney*;

Ground 5: Claim 12 is obvious under § 103(a) in view of *Griffin*, *Zydney*, and *Vaananen*;

Ground 6: Claim 10 is obvious under § 103(a) in view of *Griffin*, *Zydney*, and U.S. Patent Application Publication No. 2002/0101848 ("*Lee*") (Ex. 1014); and

Ground 7: Claim 26 is obvious under § 103(a) in view of *Griffin*, *Zydney*, and U.S. Patent Application Publication No. 2002/0146097 ("*Vuori*") (Ex. 1015).[2]

The '433 Patent issued from U.S. Application No. 14/224,125 (Ex. 1004),

[2] For each proposed ground, Petitioner does not rely on any prior art reference other than those listed here. Other references discussed herein are provided to show the state of the art at the time of the alleged invention. *See*, *e.g.*, *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015).

filed on March 25, 2014, and claims priority to the ’673 Application (Ex. 1017), filed on July 11, 2012, now the ’622 Patent (Ex. 1018), which claims priority to the ’063 Application (Ex.1019), filed on March 4, 2009, now the ’723 Patent (Ex. 1020), which claims priority to the ’030 Application (Ex. 1021), filed on December 18, 2003, now the ’890 Patent (Ex. 1022). Accordingly, for purposes of this proceeding only, Petitioner assumes the earliest effective filing date of the ’433 Patent is December 18, 2003.

Griffin was filed on July 17, 2002, and *Clark* was filed on October 31, 2000, and thus are each prior art at least under pre-AIA 35 U.S.C. § 102(e). *Zydney* was published on February 15, 2001, *Vaananen* was published on February 28, 2002, *Lee* was published on August 1, 2002, and *Vuori* was published on October 10, 2002, and thus are each prior art at least under pre-AIA 35 U.S.C. § 102(b).

Although identified, *Vaananen* was not discussed or addressed during prosecution of the ’433 Patent, and the remaining references of Grounds 1-7 were not considered during prosecution. While certain secondary references are at issue in the other IPRs challenging the ’433 patent (Part II.B), Grounds 1-7 rely on *Griffin* as a primary reference, which is not at issue in the other IPRs. Thus, the Board should consider and adopt Grounds 1-7 because they are different than those in the other IPRs.

VI. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art at the time of the alleged invention of the '433 Patent ("POSA") would have had at least a bachelor's degree in computer science, computer engineering, electrical engineering, or the equivalent and at least two years of experience in the relevant field, e.g., network communication systems. More education can substitute for practical experience and vice versa. (Ex. 1002, ¶¶15-16.)[3]

VII. CLAIM CONSTRUCTION

In an IPR, a claim that will not expire before final written decision receives the "broadest reasonable construction in light of the specification." 37 C.F.R. § 42.100(b). The '433 Patent will not expire before final written decision. Therefore, the broadest reasonable interpretation ("BRI") standard applies.[4] Because the Board need not construe the challenged claims to resolve the underlying

[3] Petitioner submits the testimony of Dr. Zygmunt J. Haas (Ex. 1002), an expert in the field of the'433 Patent. (*Id.*, ¶¶1-58; Ex. 1003.)

[4] Because of the different standards used in this proceeding and in district courts, any claim interpretations herein are not binding upon Petitioner in any litigation related to the '433 Patent. Moreover, Petitioner does not concede that the challenged claims are not invalid for reasons not raised herein.

controversy, for purposes of this proceeding, the challenged claims should be given their plain and ordinary meaning under the BRI standard. *See Toyota Motor Corp. v. Cellport Sys., Inc.*, IPR2015-00633, Paper No. 11 at 16 (Aug. 14, 2015). Thus, Petitioner applies the plain and ordinary meaning to the challenged claims herein. (Ex. 1002, ¶¶59-60.)

VIII. OVERVIEW OF THE '433 PATENT AND PRIOR ART AND DETAILED EXPLANATION OF UNPATENTABILITY

As explained in detail by Dr. Haas, the '433 Patent is directed to instant voice messaging over a packet-switched network that interconnects clients via a server. (Ex. 1001, Abstract, 2:48-3:5, Fig. 2; Ex. 1002, ¶¶52-68.) Below, Petitioner demonstrates why the challenged claims of the '433 Patent are unpatentable over the prior art references listed in Part IV, which are discussed in detail below.

A. Ground 1 – *Griffin* and *Clark* Render Obvious Claims 1-3 and 8

1. Claim 1

a. "A system comprising:"

To the extent the preamble is limiting, *Griffin* discloses these features. (Ex. 1002, ¶¶61-70, 86-91.) For example, *Griffin* discloses a system for exchanging

real-time speech (i.e., voice) chat messages between mobile terminals 100.[5] (Ex. 1005, Figs. 2-3, 1:6-12, 3:49-5:15; *see also* Parts IX.A.1.b-1.e.)

b. "an instant voice messaging application including a client platform system for generating an instant voice message and a messaging system for transmitting the instant voice message over a packet-switched network via a network interface;"

This limitation is discussed below in three parts.

(1) "an instant voice messaging application including…"

The claim language does not provide any guidance on the meaning of the term "instant voice messaging application" beyond the functions it performs, and the specification of the '433 Patent does not use the word "application" when describing messaging. Instead, as shown in Figure 3, the specification describes a "general-purpose programmable computer" having various generic components and/or functionalities, which work in conjunction to provide the described messaging features. (Ex. 1001, 12:13-23; *id.*, 13:13-40, Fig. 3.) Consistent with this disclosure, *Griffin* discloses an "instant voice messaging application." (Ex. 1002, ¶¶59-60, 92-94.)

[5] Each speech message is either an "inbound (i.e., received by the user's mobile terminal)" or an "outbound (i.e., sent by the user's mobile terminal)" message. (Ex. 1005, 1:40-44; *id.*, 5:6-9.)

For example, *Griffin* explains that each terminal 100 ("instant voice message client system") stores "machine-readable and executable instructions (typically referred to as software, code, or program)" on the terminal's "application storage" 310 and executes such instructions on the terminal's CPU 311 to perform the messaging functionalities described in *Griffin*.[6] (Ex. 1005, 4:29-61; *id.*, 3:43-48, 12:61-63.) *Griffin* also describes other components of terminal 100 that work with the software to perform such functionalities. (*Id.*, 4:40-61.) For example, *Griffin* explains that the "software" can "capture speech from the microphone 107" using "known programming techniques" (*id.*, 4:40-48) and "build and send" outbound chat messages (*id.*, 12:61-63).

Thus, the software (and related components) discloses the claimed "instant voice messaging application" because it performs the messaging features described in *Griffin*, including the features recited in the challenged claims related to the claimed "instant voice messaging application." (Ex. 1002, ¶¶92-94.)

(2) "…a client platform system for generating an instant voice message and…"

The claim language describes the "client platform system" only by function, rather than by structure (e.g., hardware and/or software). For example, the claim language describes the "client platform system" as some unspecified component

[6] CPU 311 in Figure 3 is misidentified in the specification as "CPU 211."

and/or functionality "for generating an instant voice message." While the specification of the '433 Patent does not recite the term "client platform **system**," similar to the claim language, it describes a "client platform" as some unspecified component and/or functionality "for generating an instant voice message." (Ex. 1001, 12:8-10; *id.*, 12:19-23, Fig. 3.) *Griffin* discloses a component and/or functionality that performs the same function as the claimed "client platform system." (Ex. 1002, ¶¶95-102.)

For example, *Griffin* explains that software (and related components) ("instant voice messaging application") stored and executed on terminal 100 generates a speech message based on speech captured by microphone 107. (Ex. 1005, 3:43-48, 4:40-48, 12:61-63.) For example, *Griffin* explains that to generate a speech chat message a user activates a "push-to-talk" button on terminal 100 to "record and transmit a speech message." (*Id.*, 9:20-31; *id.*, 11:42-47, 12:1-3.)

Each generated speech chat message is a "voice message," as claimed. (Ex. 1002, ¶¶97-98.) For example, *Griffin* explains that the chat messages may be speech (i.e., voice) chat messages. (Ex. 1005, Title, 1:7-11, 3:20-22, 3:28-30, 4:11-18, 4:27-29, 4:40-44, 4:52-56 (encoding/decoding speech using a "voice codec"), 4:62-65, 5:9-15, 6:38-44, 8:47-52, 9:27-31, 10:36-43 ("speech content of an outbound voice message"), 10:53-58, 11:42-12:3, 12:24-28, 12:38-47.)

Additionally, each speech message is an "instant" voice message, as claimed, because it is transmitted in "real-time." (*Id.*, 1:6-11; *id.*, 4:11-18, 4:40-56, 4:62-65, 5:2-15, 6:38-44, 6:56-7:1, 7:8-17, 8:8-14, 8:47-52, 9:27-31, 10:36-52, 11:42-47, 12:1-17; Ex. 1002, ¶99.) Indeed, *Griffin*'s description of real-time speech messaging is consistent with how instant messaging is described in the specification of the '433 Patent, and was understood in the art. (Ex. 1002, ¶¶17-30, 45-47, 99-100; Ex. 1024, 435, 936; Ex. 1025, 3-4; Ex. 1026, 1; Ex. 1028, 4-6, 11-14, 18, 218, Fig. 1.2; Ex. 1029, 9-10; Ex. 1030, 3; Ex. 1032, 36; Ex. 1036, ¶¶3-9; Ex. 1037, 2:12-3:27, 3:9-27.)[7] For example, like the system/process described in the specification of the '433 Patent (Ex. 1001, 2:35-47, 8:5-43, 11:35-63), *Griffin*'s system/process includes terminals 100 that are presented with information regarding the availability of other terminals 100 for messaging and facilitates the immediate transmission of speech messages between available terminals 100 via server 204 (Ex. 1005, 1:6-11, 4:11-18, 6:56-7:1, 7:8-17, 8:47-52, 9:23-31).

PO may argue that a "client platform system" is a "system of the client engine which controls other components used to generate an instant voice message." (*See* Ex. 1023, 18-19.) Although Petitioner does not agree with PO's

[7] These other exhibits are cited only to demonstrate the state of the art and are not relied upon as a basis for this ground. (*See supra,* footnote 2.)

interpretation, even under such an interpretation, *Griffin* discloses a "client platform system," because the software (and related components) generates a speech message by controlling other components—for example, microphone 107 for capturing speech data and voice codec 307 for encoding the data. (Ex. 1005, 3:43-48, 4:40-48, 4:52-54, 9:20-31, 11:42-47, 12:1-3, 12:61-63, 12:67-13:2; Ex. 1002, ¶¶101-102.)

(3) "…and a messaging system for transmitting the instant voice message over a packet-switched network via a network interface;"

The claim language and specification also describes the "messaging system" only by function, rather than by structure (e.g., hardware and/or software). For example, the claim language describes the "messaging system" as some unspecified component and/or functionality "for transmitting the instant voice message…." Similarly, the specification describes "messaging system 320" as some unspecified component and/or functionality "for messaging between the IVM client 208 and the IVM server 202." (Ex. 1001, 12:10-13.) *Griffin* discloses a component and/or functionality that performs the same function as the claimed "messaging system." (Ex. 1002, ¶¶103-111.)

For example, *Griffin* explains that software (and related components) ("instant voice messaging application") stored and executed on terminal 100 transmits the speech chat message ("instant voice message") over packet-based

network 203 ("packet-switched network") via network interface 306 ("network interface") to server complex 204, and thus discloses the claimed "messaging system." (Ex. 1005, 3:51-61, 4:44-54, 4:62-65, 9:20-31, 12:61-63; Ex. 1002, ¶104.)

Regarding the claimed "network interface," the specification of the '433 Patent describes a "network interface" as a generic component and/or functionality that "provide[s] connectivity to a network," and provides an Ethernet card as an example. (Ex. 1001, 12:13-16, 13:43-46.) Thus, consistent with its plain and ordinary meaning under the BRI standard, the claimed "network interface" is a component and/or functionality that provides connectivity to a network, which *Griffin*'s network interface 306 discloses. (Ex. 1002, ¶¶105-107.)

For example, as shown in Figure 3 (below), *Griffin* explains that each mobile terminal 100 contains a "network interface 306" for communicating with server 204.[8] (Ex. 1005, 4:44-51; *id.*, 3:51-65, Fig. 3.) Network interface 306 "comprises the entire physical interface necessary" for terminal 100 "to communicate with the server complex 204, including a wireless transceiver." (*Id.*, 4:44-51.)

[8] All highlighting in reproduced figures have been added unless otherwise noted.

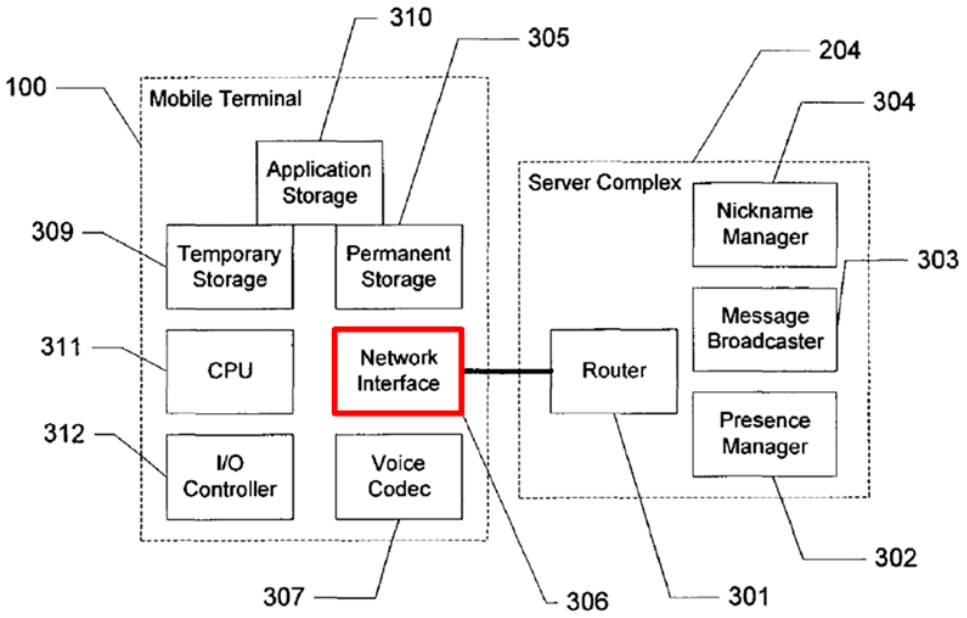


FIG. 3

Network interface 306 transmits speech messages over "a packet-switched network," as claimed. (Ex. 1002, ¶¶109-11.) For example, as shown in Figure 2 (below), *Griffin* explains that "data packets" (e.g., messages) communicated between terminals 100 via server 204 are transmitted through communication network 203. (Ex. 1005, 3:51-65; *id.*, 4:44-51, Fig. 2.) Network 203 "is a packet-based network," such as "the Internet." (*Id.*, 3:59-65.) Additionally, as explained in the '433 Patent, and as was well known in the art, the Internet is a packet-switched network. (Ex. 1001, 1:38-44, 1:53-56; Ex. 1002, ¶¶31-43, 111; Ex. 1024, 838-39, 894, 935-36; Ex. 1027, 89-93; Ex. 1031, 24-25, 157-58.)[9] Accordingly, network

[9] These other exhibits are cited only to demonstrate the state of the art and are not relied upon as a basis for this ground. (*See supra,* footnote 2.)

interface 306 is a component that provides connectivity to a packet-switched network. (Ex. 1002, ¶¶103-111.)

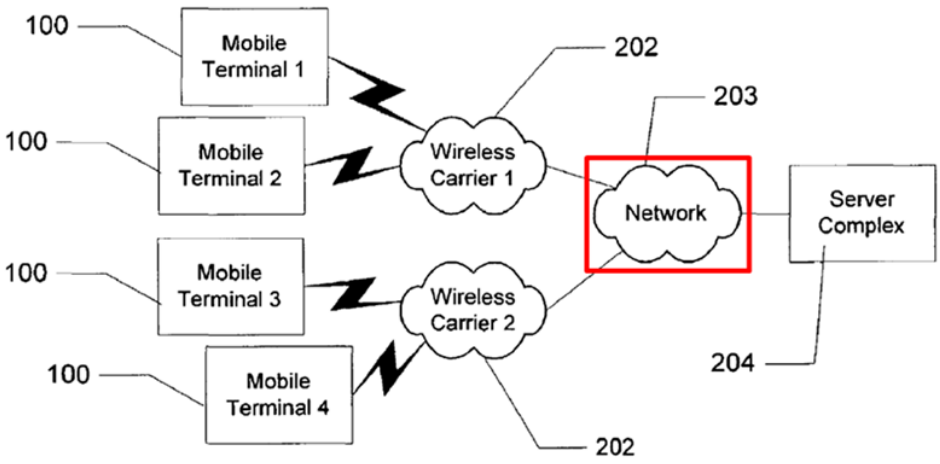


FIG. 2

c. "wherein the instant voice messaging application displays a list of one or more potential recipients for the instant voice message;"

Griffin discloses these features. (Ex. 1002, ¶¶112-113.) As explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components).

As shown in Figure 9, *Griffin* explains that the software (and related components) displays a "buddy list" having entries each representing a "buddy" that can be selected for sending a speech message ("potential recipients for the instant voice message"). (Ex. 1005, 8:39-52; *id.*, 3:22-23, 8:15-17, 9:23-31, 9:32-33.) To initiate an instant voice message, a user selects one or more listed buddies

and activates the "push-to-talk" button, which allows the user to "record and transmit a speech message." (*Id*., 9:23-31; *id*., 8:47-52, 8:64-67.)

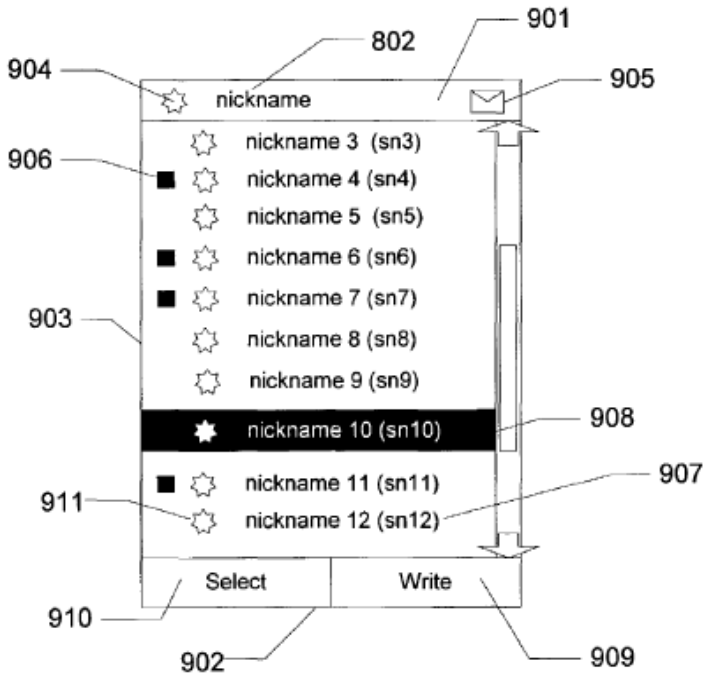


FIG. 9

d. "wherein the instant voice messaging application includes a message database storing the instant voice message, wherein the instant voice message is represented by a database record including a unique identifier; and"

Griffin in view of *Clark* discloses these features. (Ex. 1002, ¶¶114-128.) As explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components).

Griffin explains that the software (and related components) includes a "message database," as claimed. (Ex. 1002, ¶¶115-117.) For example, *Griffin*

explains that each terminal 100 stores both inbound and outbound speech messages permanently in the terminal's storage. (Ex. 1005, Fig. 3, 10:20-25, 10:25-36, 12:38-42.) For inbound messages, *Griffin* explains that "[c]lick-holding the right softkey" presents the user with an option that can be selected for "saving the inbound chat message in permanent storage 305." (*Id.*, 12:38-42.) For outbound messages, *Griffin* explains that such messages can be "echoed back to the sender in full" as an inbound message. (*Id.*, 10:25-36.) As such, the sender terminal would receive the outbound message as an inbound message just like any other recipient terminal, and would have the same capability of storing the message in permanent storage. (Ex. 1002, ¶116.) This understanding is consistent with *Griffin*'s explanation that the "chat history" displays both inbound and outbound messages. (Ex. 1005, 10:20-25; Ex. 1002, ¶116.) Therefore, terminal 100's permanent storage discloses the claimed "message database."[10] (Ex. 1002, ¶116.)

[10] While *Griffin* does not use the term "message database" to describe the storage of speech chat messages, *Griffin*'s teachings disclose this claimed term based on its plain and ordinary meaning under the BRI standard. (Ex. 1002, ¶116, n.5.) For example, neither the claim language nor the specification requires the "message database" be a particular type of database or have any specific characteristics.

Additionally, *Griffin* explains that if an inbound message arrives while the chat history display is not visible to the user, the message is queued at terminal 100 (and/or server 204) for subsequent playback. (Ex. 1005, 11:48-67.) A POSA would have understood that "queued" messages are necessarily stored in memory (or else the data would be lost), which also discloses the claimed "message database." (Ex. 1002, ¶117.)

While *Griffin* does not explicitly disclose that each speech message stored in terminal 100's message database is represented by a database record including a unique identifier, it would have been obvious to a POSA to modify *Griffin*'s system/process to implement such features in view of *Clark*. (*Id.*, ¶¶77-81, 118-128.)

For example, *Clark* discloses a system/process "for cataloging, retrieving and/or manipulating electronic messages," such as "instant messages" and "voice mail messages," whether "temporarily or permanently stored." (Ex. 1007, 8:31-44; *id.*, 4:9-12, 8:7-10, 16:50-17:22.) As shown in Figure 1A, *Clark*'s system is a client-server messaging system that involves "a very simple computer network." (*Id.*, 7:67-8:2, Fig. 1A.) Each client, which runs "messaging client software" (*id.*, 8:11-13), may be a laptop computer or any device having "a display and an input device," such as a "touch screen." (*id.*, 9:29-35). (*Id.*, 12:7-10, 13:20-29.)

Clark describes a message database that can "advantageously be integrated with messaging client software…to facilitate the organization of electronic messages." (*Id.*, 4:35-38.) In particular, *Clark* explains that each client has an integrated "message store 23," which comprises a "database structure that provides temporary or permanent storage for the contained messages 22." (*Id.*, 9:11-15; *id.*, 11:1-5.) A "message store server 24 manages the messages 22 in message store 23," including receiving and servicing requests for messages from other parts of the system. (*Id.*, 9:15-21.) A "catalog database 28," and preferably a "catalog server 29," are provided "to organize the contents of one or more message stores 23." (*Id.*, 9:54-10:3.) As one example configuration of the system, the message store 23 and catalog 28 databases and server software 24 and 29 are integrated on the same client, as shown in Figure 4A. (*Id.*, 10:28-33, Fig. 4A; *id.*, 11:1-3.)

As shown in Figures 5A and 5B—which illustrate message store 23 and catalog 28 as separate databases and as integrated databases, respectively—each message 22 is represented by a "Message" record in message store 23 and is uniquely identified by a "StoreMessageId" (Figure 5A) or "MessageId" (Figure 5B). (*Id.*, 11:14-17, 11:35-37, 11:50-54, 11:66-12:1; *id.*, 11:5-12-6.) Each message 22 is also represented by a "MessageSummary" record that holds information about the underlying message 22 in message store 23 and has a unique identifier. (*Id.*, 11:31-33, 11:66-12:1.)

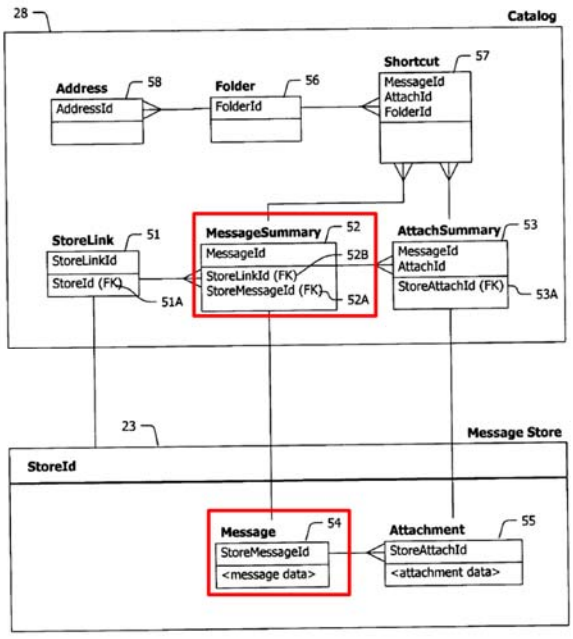


FIG. 5A

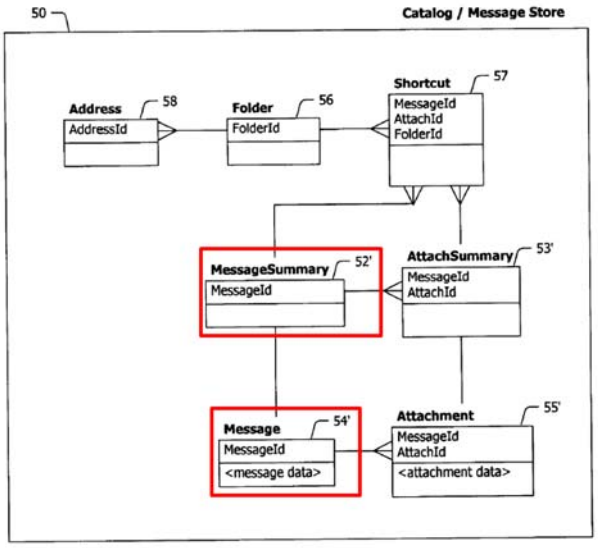


FIG. 5B

By storing each message in one or more database records and associating a unique identifier with each record, *Clark*'s system can easily catalog, retrieve, and manipulate messages. (*Id.*, 11:38-40, 13:66-14:3, 16:50-17:23.)

Based on these teachings and the knowledge of a POSA, a POSA would have been motivated to modify *Griffin*'s system/process so that terminal 100's software (and related components) stores each speech message in an integrated message database, wherein each message is represented by a database record including a unique identifier (similar to as described in *Clark*), to improve the storage, retrieval, and management of messages. (Ex. 1002, ¶¶118-23.) It was well known at the time of the alleged invention for client devices of various types and

sizes to include a database for managing data, including instant messages, and a POSA would have been aware of the many benefits of such a modification, including reduced storage access and management complexities, increased message access speed, and improved message analysis. (*Id.*, ¶123.)

Additionally, *Clark* expresses numerous reasons for implementing its database techniques. (*Id.*, ¶124.) For example, *Clark* explains that its teachings address the shortcomings of known techniques for managing electronic messages, including instant messages, such as the inefficiencies associated with manual message management. (Ex. 1007, 1:20-4:8; Ex. 1002, ¶124.) In particular, *Clark* addresses a need for a system/process that "automatically manag[es] stored messages," is "fast," allows a user to "quickly locate a message or group of messages," and helps "users to separate important messages from less important messages and to manage the flow of messages." (*Id.*, 4:9-22.) Thus, a POSA would have recognized that *Clark*'s teachings would have improved terminal 100 in *Griffin*'s system/process.

Also, *Griffin* and *Clark* are in the same field of networked communication systems, describe solutions to similar problems in the field, and describe techniques that were well known, similar, and compatible. (Ex. 1005, 1:8-12, 3:59-65, 4:10-15; Ex. 1007, 4:9-22, 4:25-48, 7:67-8:13, 8:31-44; Ex. 1002, ¶125.) As such, a POSA would have been encouraged to look to the teachings of *Clark* to

complement the teachings of *Griffin*, and would have recognized that the modification described above would have been well within the capabilities of such a person. (Ex. 1002, ¶¶125-128.) *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

For example, *Clark* explains that its teachings "can advantageously be integrated with messaging client software," which would have encouraged a POSA to consider integrating *Clark*'s teachings with *Griffin*'s system. (Ex. 1007, 4:36-38.) Also, *Clark*'s teachings "can be applied to organizing any sort of electronic messages which are to be temporarily or permanently stored," including messages with attachments, like the messages described in *Griffin*. (*Id.*, 8:31-44, 8:47-50.) *Clark* states that its teachings "could also be applied to the organization of messages which already exist in a message store." (*Id.*, 8:47-50.) Moreover, a POSA would have recognized that *Clark*'s teachings could have been applied to speech messages, because *Clark* explains that "[t]he invention does not rely on any specific message format … or protocol." (*Id.*, 8:50-54.)

Accordingly, a POSA would have found the above-described modification to be a straightforward combination of known messaging systems (similar to as described in *Griffin*) and known database techniques for storing, retrieving, and managing instant messages (similar to as described in *Clark*) by known methods without changing their respective functions to achieve a predictable result (e.g., a

system having a database of speech message records each having a unique identifier). (Ex. 1002, ¶¶127-128.) *KSR*, 550 U.S. at 417. As modified, *Griffin*'s system/process would have performed the same function of storing, retrieving, and managing speech chat messages in a database, but would have done so by representing each message by a database record including a unique identifier, similar to as described in *Clark*. (Ex. 1002, ¶¶127-128.)

e. "wherein the instant voice messaging application includes a file manager system performing at least one of storing, deleting and retrieving the instant voice messages from the message database in response to a user request."

The claim language describes the "file manager system" only by its function, rather than its structure (e.g., hardware and/or software). Specifically, the claim language describes the "file manager system" as some unspecified component and/or functionality that is "performing at least one of storing, deleting and retrieving the instant voice messages from the message database…." While the specification of the '433 Patent does not recite the term "file manager **system**," similar to the claim language, it describes a "file manager" as some unspecified component and/or functionality that "services requests from the user to record, delete or retrieve messages to/from the message database 310." (Ex. 1001, 12:36-42; *id.*, 12:19-23; Ex. 1002, ¶129.) *Griffin* in view of *Clark* discloses a component

and/or functionality that performs the same function as the claimed "file manager system." (Ex. 1002, ¶¶129-138.)

For example, as discussed in Part IX.A.1.d, *Griffin* explains that the software (and related components) stores inbound and outbound messages in terminal 100's permanent storage in response to a user selection of an option presented by "[c]lick-holding the right softkey." (Ex. 1005, 12:38-42.)

Griffin further explains that the stored messages are displayed as a list of entries in response to a user request to view the user's chat history, which a POSA would have understood requires the software to retrieve any messages that are stored in permanent storage 305. (*Id.*, 10:20-25; *id.*, 9:5-13, 9:17-20, 10:58-62, 12:18-19, 12:41-42, Figs. 2-3; Ex. 1002, ¶131.) A displayed message can be selected for playback or displayed as text using a speech-to-text translator, each of which a POSA would have understood requires the software to retrieve any messages that are stored in permanent storage 305. (Ex. 1005, 5:42-48, 10:39-47, 12:38-42; Ex. 1002, ¶131.) Additionally, a user can store and view attachments to a message using the softkeys. (Ex. 1005, 12:38-42.)

While the claim language only requires the file manager system to perform "at least one" of storing, deleting, and retrieving the instant voice messages to/from the message database, to the extent PO argues that the claim language requires the performance of each of these actions, it would have been obvious to a POSA at the

time of the alleged invention to modify the system/process of the *Griffin-Clark* combination to also delete messages from the message database in view of the teachings of *Clark*. (Ex. 1002, ¶¶132-138.)

For example, *Clark* explains that "[m]essage client 27 will typically generate requests in response to user input such as requests to message store server 24 to add, change or delete a message" in store 23. (Ex. 1007, 18:25-29.) *Clark*'s system also permits a user to retrieve messages from message store 23. (*Id.*, 4:25-27.) For example, *Clark* explains that "[a] user interface 15 equipped with a suitable input device 17 permits a user to select a folder and to view and manipulate messages." (*Id.*, 8:65-9:1; *id.*, 9:17-19, Fig. 6.) According to *Clark*, store 23 may contain any type of message and attachments thereto. (*Id.*, 8:35-44, 11:14-24.)

Based on these teachings of *Clark*, a POSA would have been motivated to modify the system/process of *Griffin* such that the software (and related components) operates to delete speech chat messages in response to a user request (similar to as described in *Clark*) in order to delete unwanted or sensitive messages and/or free limited memory space on terminal 100. (Ex. 1002, ¶134.) Moreover, a POSA would have recognized that such a modification would have been nothing more than a combination of known technologies (e.g., a database of speech messages, like described in both *Griffin* and *Clark*, and the ability to delete messages from a database in response to a user request, like described in *Clark*) by

known methods without changing their respective functions to achieve a predictable result, and would have been well within the capabilities of a POSA. (*Id.*, ¶135.) *KSR*, 550 U.S. at 417. Indeed, technologies for deleting data from a database in response to a user request were well known and commonly used at the time, as demonstrated by *Clark*. (Ex. 1002, ¶135.) Additionally, *Griffin* already discloses user-selectable options for managing the storage of messages, as discussed above. (*Id.*, ¶135.) Thus, a POSA would have known how to implement *Clark*'s techniques for deleting instant voice messages from a database to improve *Griffin*'s system/process. (*Id.*, ¶135.)

And, as discussed in Part IX.A.1.d, it would have been obvious for terminal 100's permanent storage of messages to be a database like that described in *Clark*. (Ex. 1002, ¶136.)

Accordingly, the software (and related components) of the *Griffin-Clark* system/process operating as described above discloses a "file manager system performing at least one of storing, deleting and retrieving the instant voice messages from the message database," as claimed. (Ex. 1002, ¶¶129-138.)

2. Claim 2

a. "The system according to claim 1, wherein the message database includes a plurality of instant voice messages received over the packet-switched network."

Griffin in view of *Clark* discloses these features. (Ex. 1002, ¶¶139-141.) As discussed in Part IX.A.1.d, *Griffin* discloses storing inbound speech messages received over packet-based network 203. (Ex. 1005, 10:20-25, 12:38-42; Part IX.A.1.d; Ex. 1002, ¶140.) And, as discussed in Part IX.A.1.d, it would have been obvious for terminal 100's storage of messages to be a database like that described in *Clark*. (Ex. 1002, ¶141.)

3. Claim 3

a. "The system according to claim 2, wherein the instant voice messaging application displays at least one of the plurality of instant voice messages stored in the message database."

Griffin in view of *Clark* discloses these features. (Ex. 1002, ¶¶142-146.) For example, *Griffin* explains that the software (and related components) of each terminal 100 is configured "to render text and graphical elements visible." (Ex. 1005, 3:15-23.) As shown in Figure 11 (below), terminal 100 can display a "chat history" containing stored speech messages (e.g., element 1105). (*Id.*, 10:20-25; *id.*, 10:39-47.) *Griffin* explains that the displayed messages may be "locked" messages, which are messages "saved in permanent storage 305 and will always

appear in the chat history display until it is unlocked." (*Id.*, 10:58-62; *id.*, 12:41-42.)

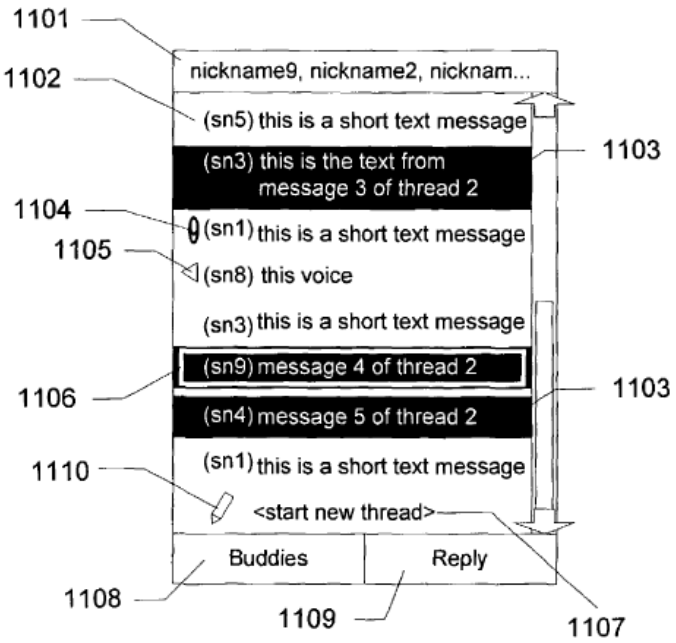


FIG. 11

Moreover, while viewing the chat history display, *Griffin* explains that "click-holding the right softkey presents the user options similar to those described in more detail with reference to FIG. 13." (*Id.*, 11:36-39.) Figure 13 "illustrates a detail view display of an inbound chat message 500" (*id.*, 12:18-19, Fig. 13).

Griffin also explains that server complex 204 may include a speech-to-text translator to convert the speech contained in a stored speech chat message to text, such that a stored speech chat message can be displayed as text on the display of 100. (*Id.*, 5:42-48, 10:39-47.)

As discussed in Part IX.A.1.d, it would have been obvious for terminal 100's storage of displayed messages to be a database similar to as described in *Clark*. (Ex. 1002, ¶145.)

Thus, the software (and related components) of the *Griffin-Clark* system/process would have operated to display at least one of the speech chat messages stored in the message database. (Part IX.A.1; Ex.1002, ¶¶142-46.)

4. Claim 8

a. "The system according to claim 1, wherein the instant voice message application generates an audible or visual effect indicating receipt of an instant voice message."

Griffin discloses these features. (Ex. 1002, ¶¶147-48.) As explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components).

As shown in Figure 9, *Griffin* explains that when "an unheard…inbound chat message 500…has arrived at the terminal 100," the software (and related components) generates an "inbound chat message indicator 905" ("visual effect") that appears on the display and an "audible sound when the icon is first displayed" ("audible…effect"). (Ex. 1005, Fig. 9, 8:29-33.)

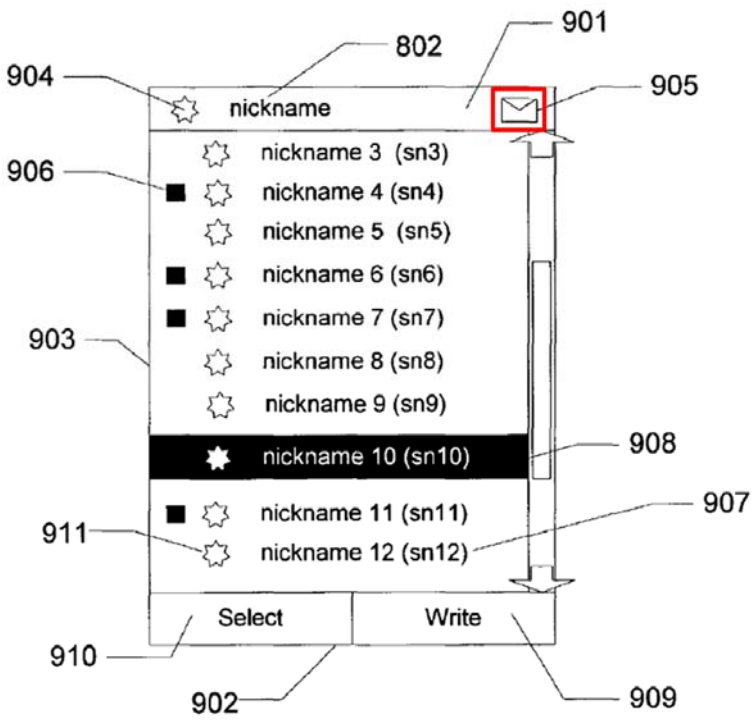


FIG. 9

B. Ground 2 – *Griffin*, *Clark*, and *Zydney* Render Obvious Claims 4 and 7

1. Claim 4

a. "The system according to claim 1, wherein the instant voice messaging application includes an audio file creation system creating an audio file for the instant voice message based on input received via an audio input device."

The claim describes the "audio file creation system" only by its function, rather than its structure (e.g., hardware and/or software). Specifically, the claim describes the "audio file creation system" as some unspecified component and/or functionality that is "creating an audio file…." While the specification of the '433 Patent does not recite the term "audio file creation **system**," it does identify "audio

file creation 312." (Ex. 1001, 12:19-23.) Similar to the claim language, the specification describes "audio file creation 312" as some unspecified component and/or functionality that "creates an instant voice message as audio file 210, and is responsible for receiving input speech for the instant voice message … and storing the input speech into audio file 210." (*Id.*, 12:42-46; Ex. 1002, ¶¶149-50.) *Griffin* in view of *Clark* and *Zydney* discloses a component and/or functionality that performs the same function as the claimed "audio file creation system." (Ex. 1002, ¶¶71-76, 149-61.)

As explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components). *Griffin* explains that the software (and related components) operates to "capture speech from the microphone." (Ex. 1005, 4:30-45.) As explained, the captured speech is preferably "encoded using a voice codec 307." (*Id.*, 4:52-53, Fig. 7.) Accordingly, the software (and related components) includes a system for creating encoded speech data for messages based on input received via a microphone ("audio input device"). (Ex. 1002, ¶¶151-52.)

Message 400 includes a message content field 406, as shown in Figure 4. (Ex. 1005, 6:39-44.) Because *Griffin* discloses that message 400 may be a speech message, as discussed above (Part IX.A.1.b), while message 400 illustrated in Figure 4 includes text data ("hello") in field 406 for a text chat message, a POSA

would have understood that field 406 would include speech data (i.e., voice) recorded by terminal 100's microphone for a speech message. (Ex. 1002, ¶153.) This is further confirmed by *Griffin*'s explanation that message 400 includes message type field 401, which indicates a message type of "text, speech, and so on." (Ex. 1005, 6:39-44; *id.*, 10:39-43, 12:38-47.) Once the message is received by a recipient, the recipient can select an option for "playing back the available speech" carried by message content field 406. (*Id.*, 12:38-47.)

Griffin does not, however, expressly disclose that the speech in the message is an "audio file." Nevertheless, it would have been obvious to a POSA to modify the combined *Griffin-Clark* system/process to implement such features in view of the teachings of *Zydney*. (Ex. 1002, ¶154.)

Zydney explains that a client software agent in a sender device 22 generates a voice message by "digitally recording" the user's speech "using a microphone-equipped device." (Ex. 1006, 16:1-4.) This digital voice recording is stored as an "audio file" on the user device. (*Id.*, 16:3-4; *id.*, 21:15-18, 39:16.) *Zydney* explains that the voice recording can be an MP3 audio file (*id.*, 39:16), and played using a "MPEG Layer-3 (MP3) audio play-back device." (*Id.*, 21:15-18.) The software agent in *Zydney* then packs the audio file into a voice container having "voice data or voice data and voice data properties." (*Id.*, 12:6-8; *id.*, 14:2-5, 23:1-11.) *Zydney* discloses that the voice container can be formatted using the Multipurpose Internet

Mail Extension (MIME) standard, which "allows for non-textual messages and multipart message bodies attachments to be specified in the message headers." (*Id.*, 19:7-10; *id.*, 19:13-20:9, 19:22-20:2.)

In view of these teachings and the knowledge of a POSA, a POSA would have been motivated to modify the combined *Griffin-Clark* system/process such that the speech included in outbound message 400 ("instant voice message") is a digital audio file, similar to that described in *Zydney*. (Ex. 1002, ¶157.) A POSA would have recognized that such a modification would have been nothing more than a simple substitution of one known and commonly-used technology for another (e.g., a digital audio file in place of other forms of data) to achieve the predictable result of a speech message including a digital audio file. (*Id.*, ¶157.) *KSR*, 550 U.S. at 417.

A POSA would have been motivated to make such a modification given that *Griffin* already discloses "encoded" speech data using a "voice codec" (Ex. 1005, 4:52-53), which was a known way to output digital data (Ex. 1002, ¶158). Similarly, *Griffin* discloses storing and communicating speech data in electronic form (e.g., field 406), as discussed above. (*Id.*, ¶158.) Additionally, digital audio files were well known and commonly used in the art and had many well-known

benefits. (*Id.*, ¶159; Ex. 1008, 8:26-27.)[11] For example, digital audio files were known to be (i) easily and efficiently stored, manipulated (e.g., encrypted), and played on various types of devices, (ii) easily and efficiently transmitted over digital networks, like the Internet, and (iii) less susceptible to errors. (Ex. 1002, ¶159.) This, coupled with the teachings of *Griffin*, *Clark*, and *Zydney*, would have motivated a POSA to modify the combined *Griffin-Clark* system/process as discussed above to achieve the above known benefits. (*Id.*, ¶159.)

Additionally, *Griffin*, *Clark*, and *Zydney* are in the same field of networked communication systems, describe solutions to similar problems in the field, and describe techniques that were well known, similar, and compatible. (Ex. 1005, 1:8-12, 3:59-65, 4:10-15; Ex. 1006, Abstract, 5:1-5, 10:11-18; Ex. 1007, 4:9-22, 4:25-48, 7:67-8:13, 8:31-44; Ex. 1002, ¶160.) As such, a POSA would have been encouraged to look to the teachings of *Zydney* to complement the teachings of *Griffin* and *Clark*, and would have recognized that the modification described above would have been well within the capabilities of such a person. (Ex. 1002, ¶161.) *KSR*, 550 U.S. at 417.

[11] Exhibit 1008 is cited only to demonstrate the state of the art and is not relied upon as a basis for this ground. (*See supra,* footnote 2.)

2. Claim 7

a. "The system according to claim 1, wherein the instant voice messaging application displays an indicia for each of the one or more potential recipients indicating whether the potential recipient is currently available to receive an instant voice message."

Griffin in view of *Clark* and *Zydney* discloses these features. (Ex. 1002, ¶¶162-176.) For example, as explained in Part IX.A.1.c, *Griffin* explains that the software (and related components) ("instant voice messaging application") displays a "buddy list" having entries each representing a "buddy" that can be selected for sending a speech chat message ("potential recipients").

As shown in Figure 9 (below), each entry in the "buddy list" includes a "presence status 911" icon indicating whether a potential recipient is currently available to receive a message depending on the presence status 702 corresponding to the recipient (e.g., "Available" or "Off"). (Ex. 1005, 8:47-52; *id.*, 5:11-30, 8:24-28 (an "icon that varies in appearance depending [on] the presence status 702").)

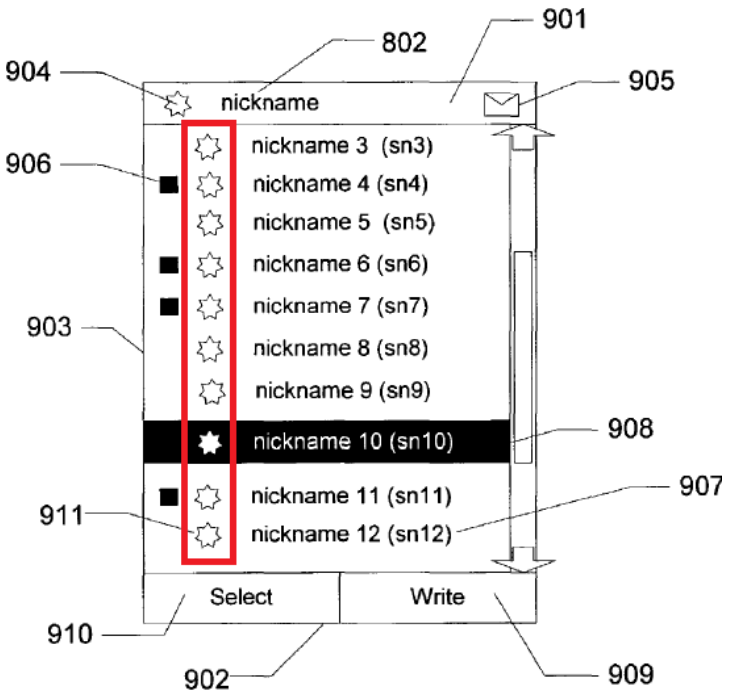


FIG. 9

Griffin explains that server 204's presence manager 302 maintains the status 702 of each potential recipient in a table with "presence data records 700." (Ex. 1005, 4:62-5:2, 5:11-30, Fig. 7.) As shown in Figure 7 (below), each record includes a status indicator 702 (e.g., "Available" or "Off"), which is "an indicator of whether the recipient is ready to receive the particular type of message." (*Id.*, 5:11-30.)

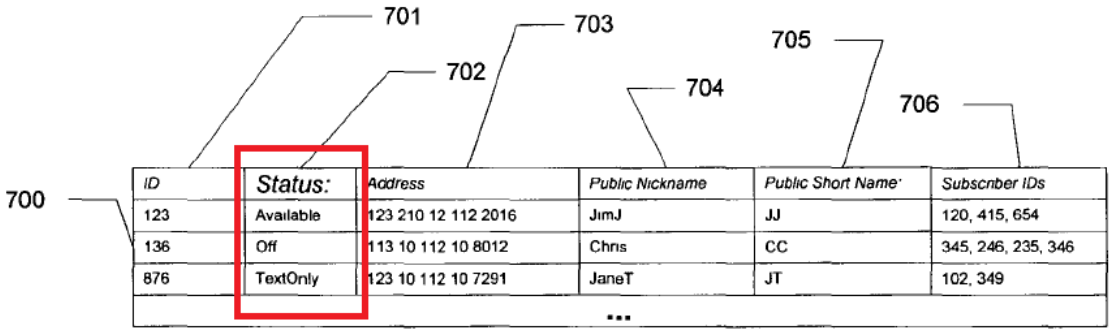


FIG. 7

In addition to status 702, each presence data record 700 includes, *inter alia*, a user's identifier 701 and identifiers of other users who subscribe to the presence information of the user. (*Id.*, 5:15-22.) *Griffin* explains that presence manager 302 tracks changes to status 702 and informs other terminals of such changes in the form of a buddy list update message 600. (*Id.*, 5:15-22, 5:27-30, 7:39-42, 7:48-49, 8:1-8, Fig. 6.)

Accordingly, presence manager 302 maintains and provides the status 702 of each recipient, which is used by terminals 100 to determine the appearance of the "presence status 911" icon corresponding to each entry in the buddy list. (Ex. 1002, ¶166.) *Griffin* does not, however, provide additional details regarding what precisely status 702 indicates. Nevertheless, it would have been obvious to a POSA at the time of the alleged invention for status 702 to include connectivity information indicating whether client 100 is currently connected to server 204 ("currently available"), based on the teachings of *Zydney*. (Ex. 1002, ¶¶167-76.)

By combining the teachings of *Griffin*, *Clark*, and *Zydney* in such a way, presence status 911 constitutes indicia indicating whether the potential recipient is currently connected ("currently available"), because the appearance of presence status 911 depends on the status 702 corresponding to the recipient. (*Id.*, ¶168.)

For example, *Zydney* describes a central server 24 that facilitates instant voice messaging between a sender agent 22 and a recipient agent 28 over a packet-switched network depending on the recipient agent's connectivity status. (Ex. 1006, 1:2-3, 10:11-11:20, Figs. 1-2.) *Zydney* explains that server 24 maintains and conveys the connectivity status of each agent in the network. (*Id.*, 13:12-14, 14:6-9, 14:19-22, 30:13-15.) According to *Zydney*, an agent's connectivity status includes "the core states of whether the recipient is online or offline, but also offers related status information, for example whether the recipient does not want to be disturbed." (*Id.*, 14:17-15:1, 32:9-33:2.) For instance, if an agent is "logged onto the system" and available for messaging, the agent's connectivity status is "Available." (*Id.*, 32:9-20.) If the agent is logged off of the system, the agent's connectivity status is "Not logged on." (*Id.*, 33:1-2.) Accordingly, *Zydney* discloses maintaining connection information for each agent indicating whether the agent is "currently available," as claimed. (Ex. 1002, ¶169.)

It would have been obvious to a POSA at the time of the alleged invention to combine the teachings of the *Griffin-Clark* combination and the teachings of

Zydney discussed above by known methods without changing their respective functions. (*Id.*, ¶¶170-176.) The combination would have predictably resulted in the combined *Griffin-Clark* system's presence manager 302 maintaining connection information for each terminal in presence data records 700, where status 702 indicates whether terminal 100 is currently connected to server 204, and sending this information in a buddy list update message 600 to terminals 100 for use in determining the appearance of the presence status 911 icons. (*Id.*, ¶170.) A POSA would have been motivated to combine these teachings in such a way for several reasons.

First, *Griffin* already discloses a system that maintains information regarding the availability of each terminal 100 for messaging (Ex. 1005, 5:15-30, 6:61-7:11), and it was well known in instant messaging systems at the time for such information to include connection information indicating whether there is a current connection (Ex. 1002, ¶¶18-30, 172; Ex. 1036, ¶7; Ex. 1037, 3:9-27; Ex. 1028, 4-6, Fig. 1.2). Indeed, a POSA knew that a network/server connection was imperative for instant messaging systems like that described in *Griffin*, and thus would have been driven by common sense to maintain information regarding connectivity in implementing such a system. (*Id.*, ¶172.) In fact, instant messaging systems at the time maintained and used such information to determine whether communication with a potential recipient was possible, and conveyed such information to

interested users for the same purpose. (*Id.*, ¶18-30, 172; Ex. 1036, ¶7; Ex. 1037, 3:9-27; Ex. 1028, 4-6, Fig. 1.2.) Therefore, a POSA would have readily ascertained that status 702 could have been configured to indicate whether terminal 100 is currently connected to server 204, and recognized the benefits of such an implementation. (*Id.*, ¶172.)

Moreover, similar to the teachings of *Griffin*, *Zydney* explains that connectivity status can be maintained and conveyed to others so that the system and its users can conveniently determine which agents are currently able to exchange messages, and proceed accordingly. (Ex. 1006, 14:20-15:1, 14:9-11, 16:7-17.) *Zydney* further explains that, by maintaining and conveying connectivity status, agents can better determine an appropriate mode of communication. (*Id.*, 14:19-20, 15:3-21.) By implementing these teachings in the combined *Griffin-Clark* system/process, the same advantages would have been realized. (Ex. 1002, ¶¶173-74.)

Furthermore, a POSA would have been encouraged to look to *Zydney* to complement the features of *Griffin* and *Clark* for reasons similar to those discussed above. (*See* Part IX.B.1; Ex. 1002, ¶¶175-76.)

C. Ground 3 – *Griffin, Clark* and *Vaananen* Render Obvious Claim 5

1. Claim 5

a. "The system according to claim 1, wherein the instant voice messaging application includes an encryption/decryption system for encrypting the instant voice messages to be transmitted over the packet-switched network and decrypting the instant voices messages received over the packet-switched network."

The claim language describes the "encryption/decryption system" only by its function, rather than its structure. Specifically, the claim language describes the "encryption/decryption system" as some unspecified component and/or functionality "for encrypting the instant voice messages to be transmitted … and decrypting the instant voices messages received…." While the specification of the '433 Patent does not recite the term "encryption/decryption **system**," similar to the claim language, it describes an "encryption/decryption" as some unspecified component and/or functionality that provides for "encrypting/decrypting of outgoing/incoming audio files." (Ex. 1001, 12:46-50; *id.*, 12:17-21, 11:11-30.) *Griffin* in view of *Clark* and *Vaananen* discloses a component and/or functionality that performs the same function as the claimed "encryption/decryption system." (Ex. 1002, ¶¶177-185.)

For example, as explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related

components). *Griffin* also explains that its system/process may include an "encryption server" to "secure the privacy of [message] content" (Ex. 1005, 5:38-40), but does not explicitly disclose that the software (and related components) of terminal 100 includes an encryption/decryption system. (Ex. 1002, ¶179.) It would have been obvious to a POSA at the time of the alleged invention, however, to modify the system/process of the *Griffin-Clark* combination to implement such features in view of the teachings of *Vaananen*. (Ex. 1002, ¶¶82-83, 177-180.)

For example, *Vaananen* describes an instant voice messaging system including subscriber terminals, a network server, and recipient terminals. (Ex. 1008, 1:3-8, 5:1-30.) *Vaananen* discloses that a user of a subscriber terminal may generate and transmit a message by first choosing a recipient and recording a message, which is stored in a packet-switched data format. (*Id.*, 2:21-29.) When the recording is finished, the data file may be encrypted prior to being sent to the recipient. (*Id.*, 2:25-3:2.) To play the message, the recipient terminal will decrypt the file prior to opening the message. (*Id.*, 18:4-10.)

Based on these teachings of *Vaananen*, a POSA would have been motivated to modify the system/process of the *Griffin-Clark* combination such that the software (and related components) operates to encrypt/decrypt speech chat messages communicated to/from packet-based network 203 (similar to that

described by *Vaananen*) to secure the privacy of message content, an explicit motivation identified in *Griffin*. (Ex. 1005, 5:38-40; Ex. 1002, ¶¶181-182.)

A POSA would have recognized that such a modification would have been a straightforward combination of known technologies (e.g., messaging systems, similar to as described in *Griffin*, and encrypting/decrypting messages, similar to as described in *Vaananen*) by known methods without changing their respective functions to achieve a predictable result (e.g., a messaging system encrypting/decrypting speech messages), and would have been well within the capabilities of a POSA at the time of the alleged invention. (Ex. 1002, ¶183.) *KSR*, 550 U.S. at 417. Indeed, techniques for encrypting/decrypting messages for secure communications were well known prior to the alleged invention, as demonstrated by *Griffin* and *Vaananen*. (Ex. 1002, ¶184.) Moreover, such a modification would have been consistent with *Griffin*'s explanation that server 204 may include "encryption servers" to "secure the privacy of [message] content." (Ex. 1005, 5:38-40; Ex. 1002, ¶184.)

Furthermore, a POSA would have been encouraged to look to *Vaananen* to complement the teachings of the *Griffin-Clark* combination because these references are all directed to the same technical field, describe solutions to similar problems in the field, and describe technologies that were well known, similar, and

compatible. (Ex. 1005, 1:8-12, 3:59-65, 4:10-15; Ex. 1007, 4:9-22, 4:25-48, 7:67-8:13, 8:31-44; Ex. 1008, 1:3-8, 5:1-30; Ex. 1002, ¶185.)

D. Ground 4 – *Griffin* and *Zydney* Render Obvious Claims 9, 11, 14-17, 25, and 26

1. Claim 9

a. "A system, comprising:"

To the extent the preamble is limiting, *Griffin* discloses these features for reasons similar to those discussed in Part IX.A.1.a. (Ex. 1002, ¶186; Part IX.D.1.b-1.d.)

b. "an instant voice messaging application comprising: a client platform system for generating an instant voice message;"

Griffin discloses these features for reasons similar to those discussed in Part IX.A.1.b.(1)-1.b.(2). (Ex. 1002, ¶187.)

c. "a messaging system for transmitting the instant voice message over a packet-switched network, and"

Griffin discloses these features for reasons similar to those discussed in Parts IX.A.1.b.(1) and (3). (Ex. 1002, ¶188.)

d. "wherein the instant voice message application attaches one or more files to the instant voice message."

Griffin in view of *Zydney* discloses these features. (Ex. 1002, ¶¶189-195.) As explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components).

Moreover, *Griffin* explains that when a user operates terminal 100 to generate an outbound message, the software (and related components) provides the user with the option of attaching files to the message. (Ex. 1005, 12:63-66; *id.*, 5:42-48, 6:39-52, 7:22-25, 10:53-58, Fig. 4; Ex. 1002, ¶190.) The software (and related components) also oversees retrieving, sending, receiving, and storing speech messages and attached files. (Ex. 1005, 5:42-48, 6:50-52, 10:53-58, 12:63-66.)

While *Griffin* describes a system for attaching files to an outbound message and explains that an outbound message may be a speech message, *Griffin* does not explicitly describe attaching files to a speech message. It would have been obvious to a POSA at the time of the alleged invention, however, to modify *Griffin*'s system/process to implement such features in view of the teachings of *Griffin* and the knowledge of a POSA because such a person would have recognized that files could be attached to text and speech messages in the same way and for the same reasons and advantages. (Ex. 1002, ¶191.)

It also would have been obvious to a POSA to modify *Griffin*'s system/process to implement such features in view of the teachings of *Zydney*, which describes a software agent that operates to address, pack, and send a message in a voice container. (Ex. 1006, 14:2-5; Ex. 1002, ¶192.) In addition to a voice message recorded using a microphone (Ex. 1006, 10:20-11:3, 16:1-4, 20:11-

14, 21:14-16), *Zydney* discloses including attachments in the voice container (*id.*, 4:7-9, 19:1-12, 22:19-20, 35:15-22, Figs. 6, 16-18). As one example, *Zydney* discloses attaching "digitized greeting cards" or "other data types" to the voice container. (*Id.*, 19:1-7.) *Zydney* also describes attaching files to voice containers using the well-known MIME standard, which allows for audio attachments. (*Id.*, 19:6-20:9.)

Based on these teachings of *Zydney* and the knowledge of a POSA, a POSA would have been motivated to modify *Griffin*'s system/process such that the software (and related components) enables the attachment of files to a speech message (like described in *Zydney*) because it would have enhanced the capabilities and convenience of *Griffin*'s system/process by providing users with the ability to collectively send and receive files with a speech message, instead of needing to send the files and message separately. (Ex. 1002, ¶193.) Additionally, as explained in *Zydney*, the ability to attach files to an instant voice message provides a "richer communications environment." (Ex. 1006, 19:2-4.)

A POSA would have recognized that such a modification would have been nothing more than a straightforward combination of known technologies by known methods without changing their respective functions to achieve a predictable result, and would have been well within the capabilities of such a person. (Ex. 1002, ¶194.) *KSR*, 550 U.S. at 417. Indeed, as discussed above, *Griffin* describes

attaching files to a chat message, and *Zydney* similarly discloses attaching files to a voice message. Thus, such a modification would have achieved a predictable result and been well within the capabilities of a POSA. (Ex. 1002, ¶195)

Furthermore, a POSA would have been encouraged to look to *Zydney* to complement the features of *Griffin* for reasons similar to those discussed above. (*See* Part IX.B.1; Ex. 1002, ¶195.)

2. Claim 11

a. "The system according to claim 9, wherein the instant voice messaging application displays one or more controls for audibly playing the instant voice message."

Griffin discloses these features. (Ex. 1002, ¶¶196-198.) As explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components).

Griffin also discloses that the software (and related components) displays controls for audibly playing a speech message. (Ex. 1002, ¶¶196-198.) For example, *Griffin* explains that terminal 100 "comprises a speaker 103 for rendering signals, such as received speech, audible." (Ex. 1005, 3:20-22.) As shown in Figure 13, *Griffin* explains that after receiving an inbound message 500, the recipient can "play[] back the available speech" ("audibly playing the instant voice message") by click-holding the right softkey (labeled "write"), which "presents the

user options such as playing back the available speech" ("displays one or more controls"). (*Id.*, 12:18-40.)

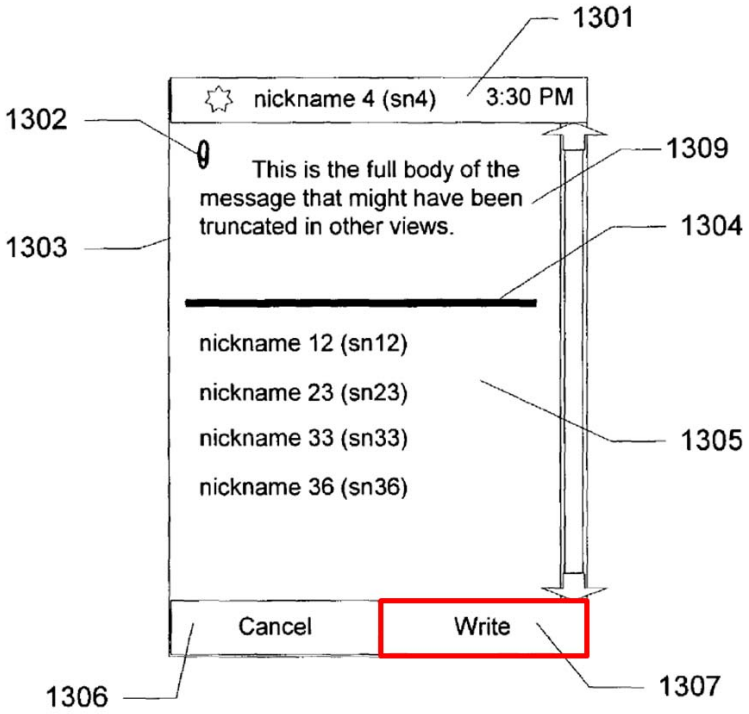


FIG. 13

While these features are described in *Griffin* with respect to the messaging application on the recipient's terminal 100, a POSA would have understood that these features also existed on the sender's terminal 100. (*See*, *e.g.*, Ex. 1005, 10:25-30; Ex. 1002, ¶198.)

3. Claim 14

a. "The system according to claim 9, wherein the instant voice messaging application invokes a document handler to create a link between the instant voice message and the one or more files."

The claim language describes the claimed "document handler system" only by its function, rather than its structure. For example, the claim language describes the claimed "document handler system" as some unspecified component and/or functionality to "create a link between the instant voice message and the one or more files." While the specification of the '433 Patent does not recite the term "document handler **system**," similar to the claim language, it describes a "document handler" as some unspecified component and/or functionality that "oversees the retrieving, sending, receiving and storing of one or more documents (or files) attached to instant voice messages." (*See* Ex. 1001, 12:28-32; *id.*, 12:19-23, 13:35-40; Ex. 1002, ¶199.) *Griffin* in view of *Zydney* discloses a component and/or functionality that performs the same function as the claimed "document handler." (Ex. 1002, ¶¶199-202.)

For example, as explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components). Moreover, as explained in Part IX.D.1.d, *Griffin* explains that when a user operates terminal 100 to generate an outbound message, the software (and related components) provides the user with the option of attaching files to the

message, which discloses the claimed "document handler." (Ex. 1005, 12:63-66; *id.*, 5:42-48, 6:50-52, 10:53-58; Ex. 1002, ¶¶200-01.)

As also explained in Part IX.D.1.d, it would have been obvious to modify *Griffin*'s system/process in view of *Zydney* to enable the attachment of one or more files to a speech message. *Zydney* explains that a user may specify a file to "associate" with a voice container. (Ex. 1006, Fig. 6; *id.*, Figs. 16, 17-18.) As one example, *Zydney* describes formatting instant voice messages using the MIME standard, which "allows for non-textual messages and multipart message bodies attachments to be specified in the message headers." (*Id.*, 19:7-10; *id.*, 19:13-20:9, 19:22-20:2.)

While neither *Griffin* nor *Zydney* state that attaching a file to a message creates a "link," a POSA would have understood based on the disclosures of *Griffin* and *Zydney* that attaching a file to a speech message creates an association between the message and the file, which discloses the claimed "link." (Ex. 1002, ¶202.) Indeed, creating a link in such a way was well known in the art, as acknowledged by the '433 Patent, which explains that creating "linkages" is "enabled conventionally" using "flags," "drag-and-drop and the like." (Ex. 1001, 13:35-40; Ex. 1002, ¶202.) Thus, the '433 Patent does not confine the term "link" to a particular technique, but instead contemplates various known techniques for creating an association between messages and files, including the conventional

techniques described in *Griffin* and *Zydney*. (Ex. 1002, ¶202.) Additionally, as discussed above, *Zydney* describes formatting voice containers using the MIME standard, which provides another conventional way to create a link, as a MIME message may include multiple parts that are associated to one another, such as by one or more internal "links," as described in RFC 2387. (Ex. 1016.)[12] It would have been obvious to a POSA at the time of the alleged invention to use a similar approach to create an association between speech messages and files in the combined *Griffin-Zydney* system/process so that recipients are aware of the association between messages and files to facilitate proper handling. (Ex. 1002, ¶202.)

4. Claim 15

a. "The system according to claim 9, wherein the instant voice messaging application displays the attachment."

Griffin in view of *Zydney* discloses these features. (Ex. 1002, ¶¶203-205.) As explained in Part IX.D.1, *Griffin* in view of *Zydney* discloses software (and related components) ("instant voice message application") that operates to generate an outbound message and attach one or more files to the message. (Part IX.D.1.b-1.d; Ex. 1002, ¶203.) Moreover, *Griffin* explains that after receiving an inbound

[12] Exhibit 1016 is cited only to demonstrate the state of the art and is not relied upon as a basis for this ground. (*See supra,* footnote 2.)

message 500 containing an attachment, the recipient can "view[]…available attachments" by click-holding the right softkey label 607. (Ex. 1005, 12:19-20, 39-40; 12:24-26.)

While these features are described in *Griffin* with respect to the messaging application on the recipient's terminal 100, a POSA would have understood that these features also existed on the sender's terminal 100. (*See*, *e.g.*, Ex. 1005, 10:25-30; Ex. 1002, ¶205.)

5. Claim 16

a. "The system according to claim 9, wherein the instant voice messaging application displays one or more controls for performing at least one of reviewing, re-recording or deleting the instant voice message."

Griffin discloses these features. (Ex. 1002, ¶¶206-208.) For example, as shown in Figure 11 (below), *Griffin* explains that terminal 100's software (and related components) ("instant voice messaging application") can display a "chat history" containing stored inbound and outbound messages. (Ex. 1005, 10:20-25; *id.*, 10:39-47.) Additionally, server 204 may include a speech-to-text translator to convert the speech contained in a message to text, such that a stored speech message can be displayed as text. (*Id.*, 5:42-48, 10:39-47.) Thus, displaying the chat history allows for reviewing speech messages ("instant voice messages"). (Ex. 1002, ¶206.)

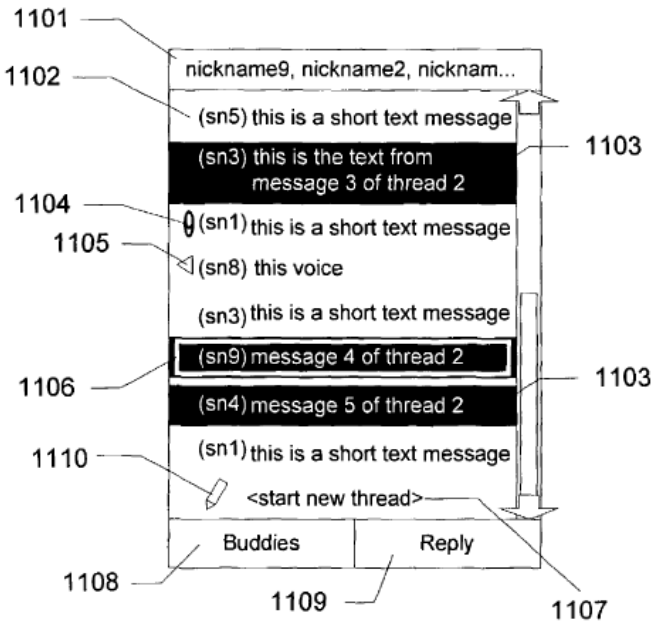


FIG. 11

Griffin explains that the chat history is displayed in response to a user request to view the user's chat history by, for example, clicking a displayed "softkey." (Ex. 1005, 9:5-13, 9:17-20.) The softkey for displaying the chat history therefore discloses displaying controls for reviewing speech chat messages. (Ex. 1002, ¶207.)

Moreover, while viewing the chat history display, *Griffin* explains that "click-holding the right softkey presents the user options similar to those described in more detail with reference to FIG. 13." (Ex. 1005, 11:36-39.) Figure 13 "illustrates a detail view display of an inbound chat message 500" (*id.*, 12:18-19, Fig. 13), from which the user is presented with "options such as playing back the available speech" (*id.*, 12:38-39). Additionally, as noted above, *Griffin* explains

that a speech-to-text translator may be used to display the speech contained in a speech chat message as text. (*Id.*, 5:42-48, 10:39-47.) Thus, the softkey displayed in the chat history for displaying the details of a message also discloses displaying controls for reviewing speech messages, which in turn displays additional controls for reviewing the messages in the form of displayed options for audibly playing a speech message, as discussed in Part IX.D.2. (Ex. 1002, ¶208.)

6. Claim 17

a. "The system according to claim 9 further comprising an instant voice messaging server receiving the instant voice message and an indication of one or more intended recipients of the instant voice message."

Griffin in view of *Zydney* discloses these features. (Ex. 1002, ¶209-212.) Neither the claim language nor the specification of the '433 Patent provide any guidance on the meaning of the term "instant voice messaging server" beyond the functions it performs. For example, the claim language merely states that the "instant voice messaging server" is "receiving the instant voice message and an indication of one or more intended recipients of the instant voice message." Referring to Figure 4, the specification of the '433 Patent describes the "IVM server 202" as a "general-purpose programmable computer" having various generic components and/or functionalities, which work in conjunction to provide the instant voice messaging features described in the specification. (Ex. 1001, 13:41-65; *id.*, Fig. 4). Consistent with this disclosure, *Griffin*'s "server complex

204" discloses an "instant voice message server," as claimed. (Ex. 1002, ¶¶209-10.)

For example, *Griffin* explains that server 204 ("instant voice messaging server") comprises a plurality of networked server computers programmed to perform the messaging functionalities described in *Griffin*, including the functionalities performed by the claimed "instant voice messaging server." (Ex. 1005, 3:65-4:5; *id.*, 4:63-5:17, 6:56-7:11.) In particular, *Griffin* explains that outbound message 400 transmitted by terminal 100 is received by server 204 "via the router 301." (*Id.*, 4:62-5:5; *id.*, 3:51-61, 4:11-15, 4:44-54, .)

Outbound message 400 includes "an indication of one or more intended recipients of the instant voice message," as claimed. (Ex. 1002, ¶212.) For example, as shown in Figure 4 (below), *Griffin* explains that outbound message 400 includes recipient identifiers in field 403. (Ex. 1005, 6:37-41, Fig. 4.)[13] According to *Griffin*, the first listed identifier is "the sender's identifier" (*id.*, 6:56-

[13] While Figure 4 illustrates an outbound message 400, for the reasons previously discussed (Part IX.A.1.a), *Griffin* explains that message 400 may be a speech message, which *Griffin* explains is transmitted in the same way. (Ex. 1005, 3:51-61, 4:11-18, 4:44-54, 4:62-65, 5:2-15, 6:56-7:11, 7:18-25, 9:20-31, 12:61-13:2; Ex. 1002, ¶212.)

59), and the remaining identifiers identify other recipients of message 400 ("indication"). (*Id.*, 6:59-61.) The server 204 sends inbound messages 500 to the identified recipients. (*Id.*, 5:2-11, 6:56-7:11.)

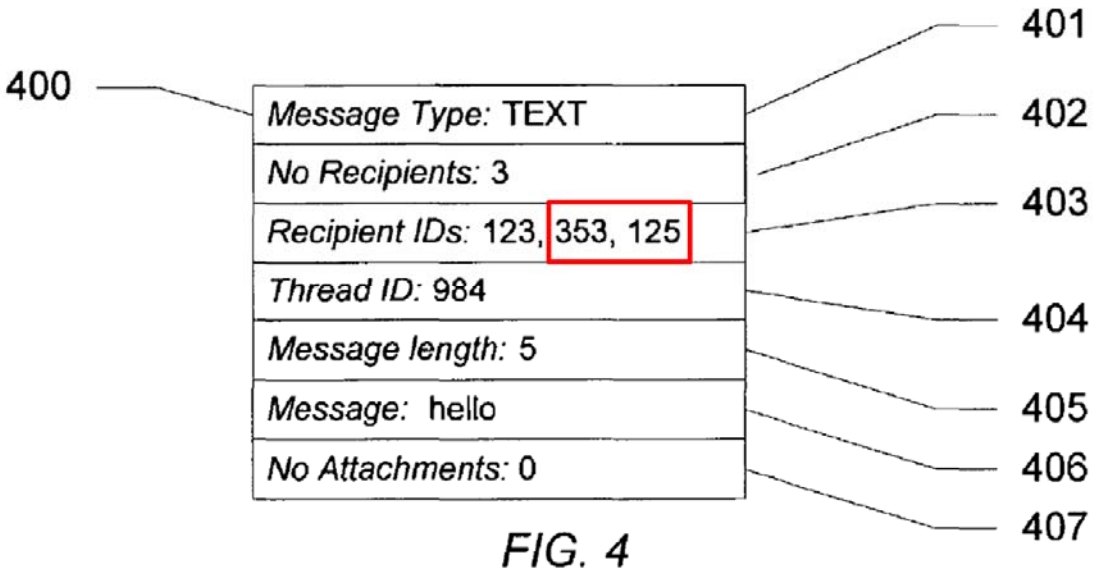


FIG. 4

7. Claim 25

a. "The system of claim 17 wherein the instant voice messaging server determines availability of the one or more intended recipients for receipt of the instant voice message."

Griffin in view of *Zydney* discloses these features. (Ex. 1002, ¶¶213-17.) As explained in Part IX.D.6, *Griffin* discloses the claimed "instant voice messaging server" in the form of server 204 programmed to perform the messaging functionalities described in *Griffin*, including determining the availability of intended recipients of speech messages. (*Id.*, ¶213.)

For example, upon receipt of outbound message 400, server 204's message broadcaster 303 (i) decomposes outbound message 400 to determine intended recipients based on the list of recipient identifiers 403 (Ex. 1005, 6:56-61), (ii) composes inbound messages 500 for each available recipient (*id.*, 6:61-7:1), and (iii) sends the inbound message 500 to each available recipient (*id.*, 7:8-11). (*Id.*, 4:62-5:15, 6:38-44.) Broadcaster 303 determines the availability of each recipient by "quer[ying] a presence manager 302 to establish the recipients' current status 702." (*Id.*, 5:9-15; *id.*, 6:61-64.)

As discussed in Part IX.B.2, *Griffin* explains that server 204's presence manager 302 maintains the status 702 of each terminal 100 in a table with "presence data records 700." (*Id.*, 4:62-5:2, 5:11-30.) As shown in Figure 7, each record includes a status 702 of a terminal 100 (e.g., "Available" or "Off"), which is "an indicator of whether the recipient is ready to receive the particular type of message." (*Id.*, 5:11-30.) Accordingly, *Griffin*'s server 204 determines the availability of intended recipients for receipt of speech messages. (Ex. 1002, ¶215.)

Griffin does not, however, provide additional details regarding what precisely status 702 indicates. But, as discussed in Part IX.B.2, it would have been obvious to a POSA at the time of the alleged invention for status 702 to include connectivity information indicating whether client 100 is currently connected to server 204, based on the teachings of *Zydney*. (Ex. 1002, ¶216.) Accordingly, claim

25 would have been obvious over the combination of *Griffin* and *Zydney*. (*Id.*, ¶217.)

A POSA would have been motivated to make such a combination for many of the same reasons previously discussed, including improved utility. (*See* Part IX.B.2.) For example, based on the knowledge of a POSA and the teachings of *Griffin* and *Zydney*, a POSA would have recognized that such a combination would have provided a convenient and straightforward way for the server to track whether a potential recipient is currently available to exchange messages. (*See* Part IX.B.2.) As such, the server could determine whether to communicate with the potential recipient and the appropriate mode of communication. (*See* Part IX.B.2.)

8. Claim 26

a. "The system of claim 25, wherein the instant voice messaging server: delivers the instant voice message to the one or more intended recipients who are determined to be currently available"

Griffin in view of *Zydney* discloses these features. (Ex. 1002, ¶¶218-221.) As explained in Part IX.D.6, *Griffin* discloses the claimed "instant voice messaging server" in the form of server 204 programmed to perform the messaging functionalities described in *Griffin*, including delivering speech messages to recipients who are determined to be currently available. (*Id.*, ¶218.)

For example, as discussed in Part IX.D.7, *Griffin* explains that server 204's broadcaster 303 compiles a list of target recipients of outbound message 400 and

queries presence manager 302 "to establish the recipients' current status 702." (Ex. 1005, 4:62-5:15; *id.*, 6:56-64.) For each recipient that presence manager 302 identifies as available based on status 702, broadcaster 303 composes and delivers an inbound message 500 to the recipient's terminal 100. (*Id.*, 6:64-7:11.) As discussed above in Part IX.B.2, status 702 indicates whether a terminal 100 is currently "Available" or "Off." (Ex. 1005, Fig. 7, 4:62-5:2, 5:11-30.)

Griffin does not, however, provide additional details regarding what precisely status 702 indicates. But, as discussed in Part IX.B.2, it would have been obvious to a POSA at the time of the alleged invention for status 702 to include connectivity information indicating whether client 100 is currently connected to server 204 ("currently available"), based on the teachings of *Zydney*. (Ex. 1002, ¶220.) By combining the teachings of *Griffin* and *Zydney* in such a way, broadcaster 303 composes and delivers an inbound message 500 only to terminals 100 that are currently connected to server 204 ("currently available"), as indicated by status 702. (*Id.*, ¶220.) Accordingly, Claim 26 would have been obvious over the combination of *Griffin* and *Zydney*. (*Id.*, ¶221.)

A POSA would have been motivated to make such a combination for many of the same reasons previously discussed, including improved utility. (*See* Parts IX.B.2, IX.D.6.) For example, based on the knowledge of a POSA and the teachings of *Griffin* and *Zydney*, a POSA would have recognized that such a

combination would have provided a convenient and straightforward way for the server to track whether a potential recipient is currently available to exchange messages. (*See* Part IX.B.2.) As such, the server could determine whether to communicate with the potential recipient and the appropriate mode of communication. (*See* Part IX.B.2.)

b. "stores the instant voice message for the one or more intended recipients who are not currently available; and delivers the instant voice message to the one or more intended recipients who are not currently available when the instant voice messaging server determines that the not currently available one or more intended recipients become available."

Griffin in view of *Zydney* discloses these features. (Ex. 1002, ¶¶222-36.) As discussed above, *Griffin* explains that server 204 only sends inbound messages 500 to recipients that are determined to be available based on the recipient's status 702. (Ex. 1005, 6:61-7:11.)

Griffin also explains that if a speech message arrives while the chat history display is not visible to the user, the user is not available to receive the message and therefore the message is "queued" at server 204 (and/or terminal 100) for later playback. (*Id.*, 11:48-67.) According to *Griffin*, "[w]hen the user switches back to the chat history display, if the speech entry is visible on the screen," the speech chat message "is automatically played back." (*Id.*, 11:62-64.) Accordingly, *Griffin*

discloses storing and delivering speech messages depending on whether the recipient is viewing the chat history display. (Ex. 1002, ¶¶222-223.)

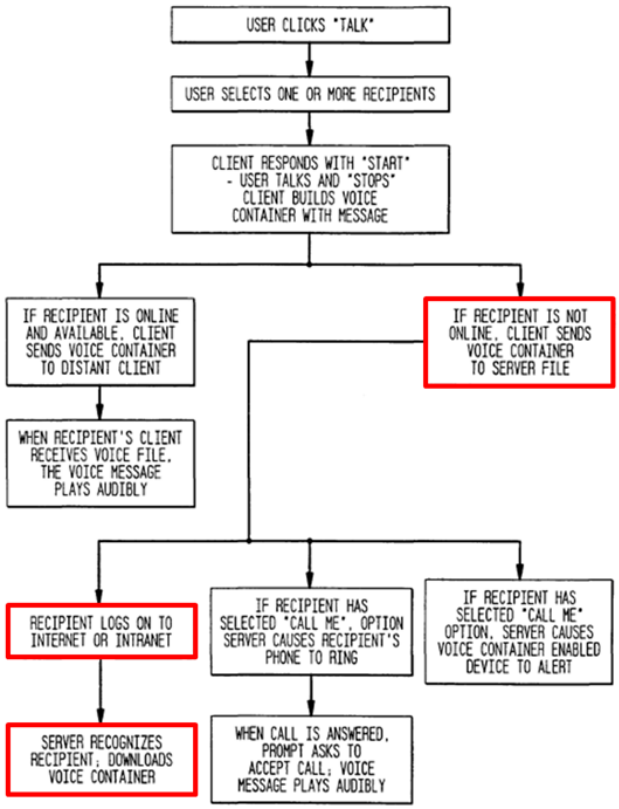
As discussed above, while *Griffin* does not provide additional details regarding what precisely status 702 indicates, it would have been obvious to a POSA at the time of the alleged invention for status 702 to include connectivity information indicating whether client 100 is currently connected to server 204 ("currently available"), based on the teachings of *Zydney*. (Ex. 1002, ¶224.)

Also, while *Griffin* explains that server 204 stores and delivers messages based on whether a user is viewing the chat history display, *Griffin* does not explicitly disclose storing a message if a recipient is not currently available as determined based on status 702, and delivering the stored message to the recipient once the recipient becomes available as determined based on status 702. However, as discussed below, it also would have been obvious to modify *Griffin*'s system/process to implement such features based on the teachings of *Zydney*. (*Id.*, ¶225.)

For example, *Zydney* explains that its system can "store messages…at the server when the recipient is not available." (Ex. 1006, 2:3-5; *id.*, 11:3-6, 13:12-15, 14:9-11, claim 1.) Specifically, as shown in the highlighted steps of Figure 4 (below), *Zydney* explains that the server operates to "track and maintain the status of all software agents." (*Id.*, 14:8-9.) When the message recipient is not online, the

voice message is sent to a "server file" for storage at the server. (*Id.*, Figs. 4, 8.) When the recipient reconnects, the server transmits the stored voice container to the recipient. (*Id.*, Figs. 4, 8, 13:19-22, 14:14-16, 15:15-16, 16:10-12, 25:1-4, 30:1-7, 33:7-10.)

FIG. 4



Zydney also describes an embodiment where voice containers are uploaded to the central server prior to determining whether the recipient computer is online and available. For example, with reference to Figure 8, *Zydney* describes uploading voice containers to the server (*id.*, Fig. 8 (Step 1.2.3)), and then "notifying an

available software agent on the recipient's computer of the arrival of a new message in near real-time," or "notifying the software agent on the recipient's computer when it first becomes available of voice containers in the central storage" (*id.*, Fig. 8 (Step 1.2.5)). The voice container can then be downloaded to the recipient's computer, after which the central server "remov[es] the files from the central server." (*Id.*, Fig. 8 (Step 1.2.6).)

In view of these teachings of *Zydney*, a POSA would have been motivated to configure *Griffin*'s system/process such that server 204 stores speech messages for terminals 100 that are not currently connected to server 204 ("not currently available") and delivers the stored messages when the terminals 100 re-establish a connection ("become available") (similar to that disclosed by *Zydney*) to enhance the capabilities and convenience of *Griffin*'s system/process by addressing scenarios where recipient terminals 100 are temporarily unavailable, which is a common scenario in such instant messaging systems. (Ex. 1002, ¶¶226-230.) A POSA would have recognized that configuring *Griffin*'s system/process in such a way would have prevented recipient terminals 100 from missing messages while disconnected and removed the need to re-send messages that were not received by disconnected recipient terminals 100. (*Id.*, ¶231.) Additionally, such a configuration would have enabled terminal 100 users to send messages to

disconnected recipients for later delivery instead of only to currently connected recipients. (*Id.*, ¶231.)

A POSA would have recognized that such a modification would have been a straightforward combination of known technologies by known methods without changing their respective functions to achieve a predictable result, and would have been well within the capabilities of such a person. (*Id.*, ¶232.) *KSR*, 550 U.S. at 417. As discussed above, *Griffin* already discloses that server 203 temporarily stores messages for later playback when a terminal 100 user is not viewing the chat history display. (Ex. 1005, 11:48-67; Ex. 1002, ¶¶233-34.) Thus, a POSA would have recognized that configuring server 204 to also temporarily store and deliver messages based on whether recipient terminals 100 are currently connected to server 204 would have been merely an obvious, commonsense, and natural extension of *Griffin*'s system. (Ex. 1002, ¶234.) Indeed, such a configuration could have been implemented in much the same way *Griffin*'s server 204 temporarily stores messages when a terminal 100 user is not viewing the chat history display. (*Id.*, ¶235.)

Furthermore, a POSA would have been encouraged to look to *Zydney* to complement the features of *Griffin* for reasons similar to those discussed above. (See Part IX.B.1; Ex. 1002, ¶236.)

E. Ground 5 – *Griffin*, *Zydney,* and *Vaananen* Render Obvious Claim 12

1. Claim 12

a. "The system according to claim 9, wherein the instant voice messaging application encrypts the instant voice message."

Griffin in view of *Zydney* and *Vaananen* discloses these features. (Ex. 1002, ¶¶237-238.) For example, as explained in Part IX.A.1.b, *Griffin* discloses the claimed "instant voice messaging application" in the form of software (and related components).

Griffin also explains that its system/process may include an "encryption server" to "secure the privacy of [message] content" (Ex. 1005, 5:38-40), but does not explicitly disclose that the software (and related components) encrypts speech messages. For the same reasons discussed in Part IX.C.1, however, it would have been obvious to a POSA at the time of the alleged invention to modify the system/process of the *Griffin-Zydney* combination in view of the teachings of *Vaananen* so that the software (and related components) of terminal 100 encrypts speech chat messages. (Ex. 1002, ¶238.)

F. Ground 6 – *Griffin*, *Zydney,* and *Lee* Render Obvious Claim 10

1. Claim 10

a. "The system according to claim 9, wherein the packet-switched network comprises a WiFi network."

Griffin in view of *Zydney* and *Lee* discloses these features. (Ex. 1002, ¶¶239-253.) As shown in Figure 2 (below), *Griffin* explains that "data packets" (e.g., messages) communicated between terminals 100 via server 204 are transmitted through wireless carrier infrastructure 202 to network 203, which "is a packet-based network," such as "the Internet or World Wide Web, a private network such as a corporate intranet, or a combination of public and private network elements." (Ex. 1005, 3:49-51, 3:59-65, 4:48-51, Fig. 2.) As discussed in Part IX.A.1.b, network 203 discloses the claimed "packet-switched network."

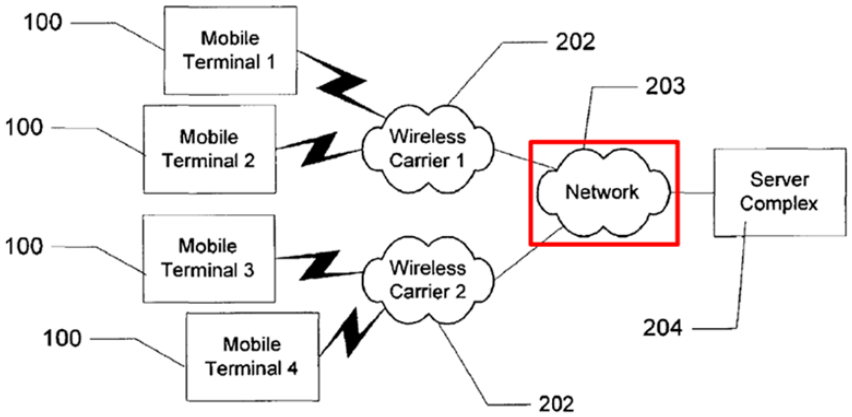


FIG. 2

Although *Griffin* does not expressly disclose that network 203 comprises a WiFi network, including a WiFi network in network 203 would have been obvious

to a POSA at the time of the alleged invention in view of the knowledge of a POSA and the teachings of *Lee*. (Ex. 1002, ¶¶84, 240-253.) Figure 2 of *Griffin* only illustrates one of the known ways to wirelessly connect to a packet-switched network. In particular, *Griffin* explains that terminal 100 can wirelessly connect to network 203 via a wireless carrier's infrastructures 202, which "comprise those elements necessary to support wireless communications with the terminals 100." (Ex. 1005, 3:51-59.) At the time of the alleged invention, other wireless technologies for connecting to a packet-switched network were known and widely used. (Ex. 1002, ¶241.) One of the most popular at the time was based on the IEEE 802.11 wireless networking specification, commercially referred to as "WiFi." (*Id.*, ¶48-51, 241.)

At the time of the alleged invention, a POSA would have been familiar with IEEE 802.11 (WiFi) and its use with mobile devices. (*Id.*, ¶48, 241.) IEEE 802.11 refers to wireless networking specifications published by the Institute of Electrical and Electronics Engineers (IEEE). (*Id.* ,¶48, 241; Ex. 1033, 17-18.) The original version of IEEE 802.11 was published in 1997, and was soon after amended into other versions, such as IEEE 802.11b, which was published and widely used before the date of the alleged invention. (*Id.*, ¶49, 241; Ex. 1034, 1-3; Ex. 1035, 152-53.) This understanding is consistent with the '433 Patent specification, which explains that prior art systems used "IEEE 802.11 (also known as 'WiFi')" to connect a

mobile terminal to a packet-switched network. (Ex. 1001, 1:67-2:5.) Accordingly, a POSA would have been well aware of WiFi for wirelessly connecting devices to a packet-switched network prior to the time of the alleged invention, and would have considered and been motivated to use WiFi in implementing an instant messaging system, like the system described in *Griffin*. (Ex. 1002, ¶¶50-51, 242-243.)

This understanding is further confirmed by *Lee*, which describes various systems and methods for connecting wireless devices to packet-switched networks. (Ex. 1014, Abstract.) For example, like described in *Griffin*, *Lee* explains that a wireless device can connect to the Internet via "a conventional cellular phone telecommunication network." (*Id.*, ¶15.) *Lee* also identifies other solutions for wireless connectivity—including IEEE 802.11. (*Id.*, ¶8; *id.*, ¶54.)

As shown in Figure 5 (below), a "wireless network system enables connectivity between a wireless device 10 and an IP network that is part of an intranet 20 and the Internet 30." (*Id.*, ¶53.) Wireless devices 10 (e.g., "a smart mobile phone") are connected to wireless gateway 40, which serves as an access point to the IP networks (e.g., intranet 20 and Internet 30). (*Id.*, ¶54.) In this way, gateway 40 "provides not only WLAN (Wireless LAN) functions but also a conduit to resources on the Internet/Intranet." (*Id.*) *Lee* confirms that IP networks

were known in the art at the time of the alleged invention to be packet-switched networks. (*Id.*, ¶6; *id.*, ¶¶16, 30-31, 56, 58; Ex. 1002, ¶245.)

Lee also explains that the wireless network system of Figure 5 may employ WiFi. (Ex. 1014, ¶54; *id.*, ¶8.) Accordingly, *Lee* discloses at least two packet-switched networks—WLAN 20 and Internet 30—each of which comprises a WiFi network. (Ex. 1002, ¶246.)

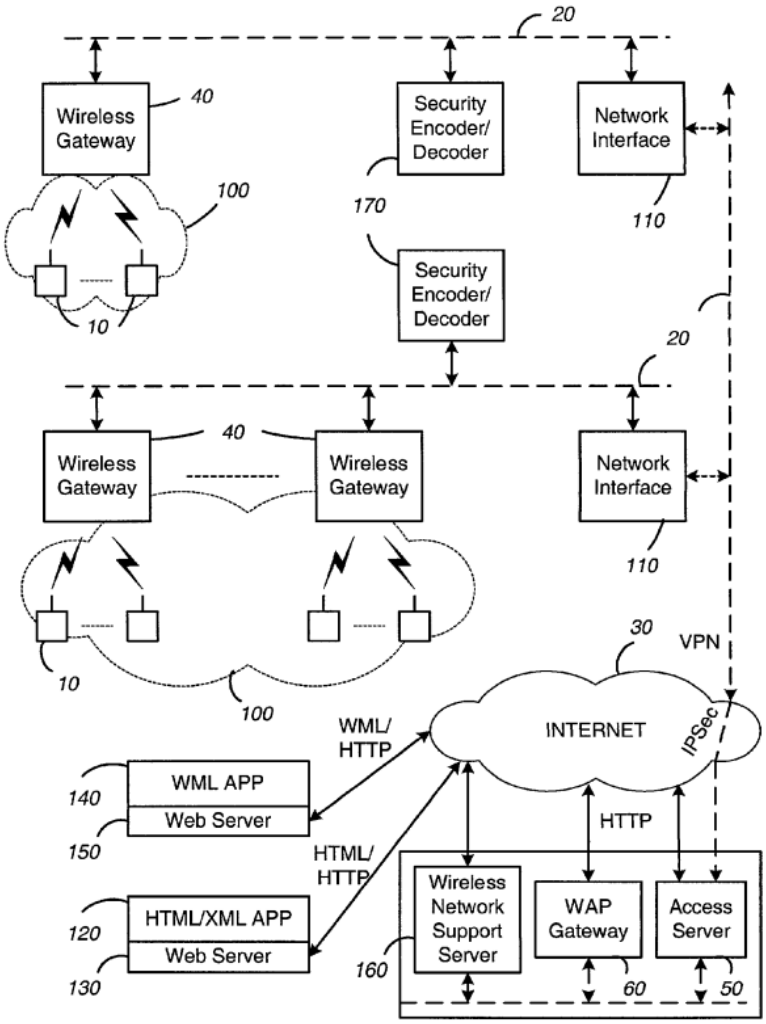


FIG. 5

It would have been obvious to a POSA at the time of the alleged invention to modify the combined *Griffin-Zydney* system/process based on the teachings of *Lee* and the knowledge of a POSA. (*Id.*, ¶247.) Such a modification would have predictably resulted in *Griffin*'s terminals 100 being enabled to connect to network 203 (e.g., Internet) via either a WiFi network, similar to as described in *Lee*, or infrastructure 202. (*Id.*, ¶247.) As such, the packet-switched network disclosed by the *Griffin-Zydney-Lee* combination comprises a WiFi network. (*Id.*, ¶¶246-247.)

A POSA would have been motivated to make such a modification for several reasons. For example, a POSA would have been aware of the many well-known benefits of using WiFi to connect to network 203 as an alternative to using infrastructure 202. (Ex. 1002, ¶248.) Particularly, a POSA would have known that each type of connection has distinct advantages over the other that would allow each to offer higher quality services under disparate conditions. (*Id.*, ¶248.) For example, while infrastructure 202 may have provided access to network 203 over a larger geographical area, a POSA would have recognized that WiFi would have allowed terminal 100 to connect to network 203 without being tethered to a physical connection and without having to rely on infrastructure 202, which may be slow or unavailable. (*Id.*, ¶248.) Additionally, a POSA would have known that using WiFi would not have required payment of a service fee to a wireless carrier

to use infrastructure 202. (*Id.*, ¶248.) Thus, a POSA would have understood that WiFi and infrastructure 202 would have complemented each other. (*Id.*, ¶248.)

Furthermore, a POSA would have recognized that there were only a finite number of available wireless networking technologies suitable for use with mobile devices at the time of the alleged invention—WiFi being one of them. (*Id.*, ¶249.) Thus, a POSA looking to implement an instant messaging system like that described in *Griffin* and *Zydney* would have been encouraged to try WiFi for providing connectivity to the network with a reasonable expectation of success, especially given the popularity and widespread use of WiFi at the time for similar purposes. (*Id.*, ¶249.) Indeed, as was known, WiFi was "the most common" wireless local network as of 2002 and was "commonly installed in offices, airports, coffee shops, etc." (Ex. 1002, ¶¶50, 249; Ex. 1033, 18; Ex. 1038, 1:12-13; Ex. 1039, ¶18.)[14]

Additionally, *Griffin*, *Zydney*, and *Lee* are in the same field of networked communication systems, describe solutions to similar problems in the field, and describe techniques that were well known, similar, and compatible. (Ex. 1005, 1:8-12, 3:59-65, 4:10-15; Ex. 1006, Abstract, 5:1-5, 10:11-18; Ex. 1014, ¶¶52-66; Ex.

[14] Exhibit 1033 is cited only to demonstrate the state of the art and is not relied upon as a basis for this ground. (*See supra,* footnote 2.)

1002, ¶250.) As such, a POSA would have been encouraged to look to the teachings of *Lee* to complement the teachings of *Griffin* and *Zydney*, and would have recognized that the modification described above would have been well within the capabilities of such a person. (Ex. 1002, ¶250.) *KSR*, 550 U.S. at 417.

The *Griffin-Zydney-Lee* combination discloses the features of claim 10 in a second, independent way, where, instead of using WiFi to connect terminals 100 to network 203, as discussed above, network 203 itself is implemented using WiFi. (Ex. 1002, ¶251.) For example, as discussed above, *Griffin* explains that network 203 can be a private network such as a corporate intranet (Ex. 1005, 3:61-65), and *Lee* explains that a private network may be a "WLAN (Wireless LAN)" implemented using WiFi (Ex. 1014, ¶54). Thus, the combination of these teachings of *Griffin* and *Lee* would have predictably resulted in a system/process for transmitting speech messages over a private WLAN implemented using WiFi. (Ex. 1002, ¶251.)

A POSA would have been motivated to make such a combination for the reasons discussed above, as well as to increase mobility, communication, and collaboration among users in a private network. (*Id.*, ¶252.) Additionally, as a POSA would have known, WiFi was particularly well suited for implementing private networks confined to a limited geographic area (e.g., WLANs), as WiFi typically provides sufficient geographic coverage, speed, and bandwidth for such

networks. (*Id.*, ¶252.) For these reasons, among others, WLANs based on WiFi were popular at the time of the alleged invention, and therefore would have been considered by a POSA when implementing an instant messaging system for a private network. (*Id.*, ¶253; Ex. 1038, 1:12-13; Ex. 1039, ¶¶18-20.)[15]

G. Ground 7 – *Griffin*, *Zydney,* and *Vuori* Render Obvious Claim 26

1. Claim 26

As discussed in Part IX.D.8, the features of claim 26 are obvious in view of *Griffin* and *Zydney*. (Ex. 1002, ¶254.) This ground presents a second, independent way the features of claim 26 are disclosed.[16] In particular, as discussed below, the features of claim 26 are obvious in view of *Griffin*, *Zydney*, and *Vuori*. (Ex. 1002, ¶¶254-260.)

As discussed in Part IX.B.2, while *Griffin* does not provide additional details regarding what precisely status 702 indicates, it would have been obvious to a POSA to modify *Griffin*'s system/process based on the teachings of *Zydney* so that

[15] Exhibits 1038 and 1039 are cited only to demonstrate the state of the art and are not relied upon as a basis for this ground. (*See supra*, footnote 2.)

[16] In comparison to *Zydney*'s disclosure, *Vuori* provides additional details related to the features of claim 11. Thus, this ground is presented in the event PO argues or the Board finds that *Zydney*'s disclosure provides insufficient details.

status 702 includes connectivity information indicating whether terminal 100 is currently connected to server 204. As discussed below, it would have been obvious to modify the combined *Griffin-Zydney* system/process based on the teachings of *Vuori* so that speech messages are stored at server 204 and delivered depending on whether the recipient's status 702 indicates a current connection. (Ex. 1002, ¶¶85, 255-260.)

For example, *Vuori* describes a system for sending "short voice messages" (SVMs) "as instant messages." (Ex. 1015, ¶31; *id.*, Abstract, ¶¶3, 32-34, 41, Figs. 1, 6.) To do so, a user 10 speaks into equipment 14 (e.g., mobile phone) to record a SVM, selects one or more intended recipients, and then causes equipment 14 to send the SVM to an "SVM service center" (SVMSC). (*Id.*, ¶¶32-34.) Upon receipt of the SVM, the SVMSC will determine the availability of the intended recipients (e.g., on-line). (*Id.*, ¶47; *id.*, ¶¶43-46, 50.) The SVMSC will "send the SVM immediately to those intended recipients who are available." (*Id.*, ¶34; *id.*, ¶50.) For unavailable recipients, SVMSC will temporarily store and deliver the SVM when the recipients become available (or there is a time out). (*Id.*; *id.*, ¶¶8, 54.)

It would have been obvious to combine these teachings of *Vuori* with the teachings of *Griffin* and *Zydney* for the same reasons discussed in Part IX.D.8.b. Additionally, a POSA would have been encouraged to look to *Vuori* to complement the teachings of *Griffin* and *Zydney* because these references are in the

same technical field of network communication systems, teach solutions to common problems in the field, and describe technologies that were well known, similar, and compatible. (Ex. 1005, 1:8-12, 3:59-65, 4:10-15; Ex. 1006, Abstract, 5:1-5, 10:11-18; Ex. 1015, Abstract, ¶¶3, 31-34, 41, Figs. 1, 6; Ex. 1002, ¶¶259-60.)

IX. CONCLUSION

For the foregoing reasons, Petitioner requests IPR and cancellation of Claims 1-5, 7-12, 14-17, 25 and 26 of the '433 Patent.

Respectfully submitted,

Dated: July 20, 2017

By: /Naveen Modi/
Naveen Modi (Reg. No. 46,224)
Counsel for Petitioner

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 8,995,433 contains, as measured by the word-processing system used to prepare this paper, 13,939 words. This word count does not include the items excluded by 37 C.F.R. § 42.24(a).

Respectfully submitted,

Dated: July 20, 2017

By: /Naveen Modi/
Naveen Modi (Reg. No. 46,224)
Counsel for Petitioner

CERTIFICATE OF SERVICE

I hereby certify that on July 20, 2017, I caused a true and correct copy of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 8,995,433 and supporting exhibits to be served via express mail on the Patent Owners at the following correspondence address of record as listed on PAIR:

Uniloc USA Inc.
Legacy Town Center
7160 Dallas Parkway, Suite 380
Plano, TX 75024

The Petition and supporting exhibits were also served upon counsel of record for Patent Owner in the litigation pending before the U.S. District Court for the Eastern District of Texas entitled *Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.*, Case No. 2-16-cv-00642 (E.D. Tex.) at the following correspondence addresses:

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Dated: July 20, 2017

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Naveen Modi (Reg. No. 46,224)
Counsel for Petitioner