

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC, SAMSUNG ELECTRONICS CO. LTD.,
AND SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner

v.

MULTIMODAL MEDIA LLC,
Patent Owner.

Case No. IPR2024-00056
U.S. Patent No. 7,929,949

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 7,929,949**

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LIST OF EXHIBITS¹

Ex-1001	U.S. Patent No. 7,929,949
Ex-1002	Declaration of Dr. Benjamin B. Bederson
Ex-1003	Curriculum Vitae of Dr. Benjamin B. Bederson
Ex-1004	File History of U.S. Patent No. 7,929,949
Ex-1005	INTENTIONALLY LEFT BLANK
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Ex-1007	INTENTIONALLY LEFT BLANK
Ex-1008	U.S. Patent Publication No. 2008/0182603 (“Still”)
Ex-1009	U.S. Patent Publication No. 2007/0088852 (“Levkovitz”)
Ex-1010	U.S. Patent Publication No. 2008/0004046 (“Mumick’046”)
Ex-1011	INTENTIONALLY LEFT BLANK
Ex-1012	INTENTIONALLY LEFT BLANK
Ex-1013	INTENTIONALLY LEFT BLANK
Ex-1014	INTENTIONALLY LEFT BLANK
Ex-1015	INTENTIONALLY LEFT BLANK
Ex-1016	INTENTIONALLY LEFT BLANK
Ex-1017	INTENTIONALLY LEFT BLANK
Ex-1018	INTENTIONALLY LEFT BLANK
Ex-1019	INTENTIONALLY LEFT BLANK
Ex-1020	INTENTIONALLY LEFT BLANK

¹ Four-digit pin citations that begin with 0 are to the branded numbers added by Petitioner in the bottom right corner of the exhibits. All other pin citations are to original page, column, paragraph, or line numbers.

Ex-1021	<i>Multimodal Media LLC v. Guangdong Oppo Mobile Telecommunications Corp., Ltd.</i> , 2:21-cv-00436, D.I. 65 (E.D. Tex. Apr. 24, 2023) (Claim Construction Order) (“ <i>Oppo</i> Litigation”)
Ex-1022	<i>Multimodal Media LLC v. TCL Technology Group Corporation et al.</i> , 2:22-cv-00463, D.I. 23 (E.D. Tex. Feb. 22, 2023) (Stay Order) (“ <i>TCL</i> litigation”)
Ex-1023	<i>Multimodal Media LLC v. Samsung Electronics Co., Ltd. et al.</i> , 2:22-cv-00462, Infringement Contentions (E.D. Tex. May 30, 2023) (“ <i>Samsung</i> Infringement Contentions”)
Ex-1024	INTENTIONALLY LEFT BLANK
Ex-1025	Alok Sinha, Client-server computing (1992), Communications of the ACM, 35, 7 (July 1992), 77–98, DOI: https://doi.org/10.1145/129902.129908
Ex-1026	Benjamin B. Bederson & James D. Hollan, Pad++: A Zooming Graphical Interface for Exploring Alternate Interface Physics, UIST ‘94 Proceedings of the 7th Annual ACM Symposium on User Interface Software and Technology 17 (1994), DOI: http://dx.doi.org/10.1145/192426.192435
Ex-1027	Tim Berners-Lee, Robert Cailliau, Ari Luotonen, Henrik Frystyk Nielsen, and Arthur Secret, The World-Wide Web (1994), Communications of the ACM 37, 8 (August 1994), 76-82, DOI: http://dx.doi.org/10.1145/179606.179671
Ex-1028	Sony Ericsson Z520a Manual (2005), available at: https://theinformr.com/downloads/phones/manuals/sony-ericsson-z520a-manual.pdf
Ex-1029	C.J. Date, An Introduction to Database Systems at 8 (7th ed. 2000)
Ex-1030	Nokia 3250 User Guide (2006), available at: https://ia801806.us.archive.org/32/items/manualzilla-id-5923903/5923903.pdf
Ex-1031	David Dearman, Amy Karlson, Brian Meyers, and Ben Bederson, Multi-modal text entry and selection on a mobile device (2010), In

	Proceedings of Graphics Interface 2010 (GI '10), Canadian Information Processing Society, CAN, 19–26
Ex-1032	AOL Instant Messenger Registration page (1999), available at: https://web.archive.org/web/19991127133324/http://aim.aol.com/?promo=106712&pageset=Aim
Ex-1033	Newsroom, Apple Reinvents the Phone with iPhone (Jan. 9, 2007), available at: https://www.apple.com/newsroom/2007/01/09Apple-Reinvents-the-Phone-with-iPhone/
Ex-1034	INTENTIONALLY LEFT BLANK
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Ex-1036	INTENTIONALLY LEFT BLANK
Ex-1037	INTENTIONALLY LEFT BLANK
Ex-1038	RealPlayer 8 Plus User Manual (Rev. 1.0) (2000), available at: https://www.itya.unam.mx/computo/sites/manuales/realplayer/rp8manualfull.pdf
Ex-1039	The Wayback Machine Archive, Pine Information Center, Frequently Asked Questions, University of Washington (Oct. 4, 2000), available at: https://web.archive.org/web/20010410095757/http://www.washington.edu/pine/faq/sendreceive.html
Ex-1040	Nokia 9300 User Guide (2005), available at: https://www.manualslib.com/download/756822/Nokia-9300.html
Ex-1041	Jackson Phipps, The History of PPC and Google Ads, 2060 Digital, available at: https://2060digital.com/blog/the-history-of-ppc-and-google-ads/#:~:text=In%202000%2C%20Google%20rolled%20out,digital%20advertisers%20across%20the%20world
Ex-1042	Cisco Systems, Shared Services: What, Why, and Where to Begin (2006), available at: https://www.cisco.com/web/strategy/docs/gov/SharedServices_Jan06.pdf
Ex-1043	PCT Publication WO2006/020938 (“Mumick’938)
Ex-1044	Provisional Application 60/898,678 (“Still Provisional”)

Ex-1045	Ben Shneiderman & Catherine Plaisant, <i>Designing the User Interface</i> (4th ed., 2005)
Ex-1046	<i>Multimodal Media LLC v. Guangdong Oppo Mobile Telecommunications Corp., Ltd.</i> , 2:21-cv-00436, D.I. 74 (E.D. Tex. Sept. 6, 2023) (Order of Dismissal)

I. INTRODUCTION

Google LLC, Samsung Electronics Co. Ltd., and Samsung Electronics America, Inc. (collectively, “Petitioner”) requests *inter partes* review (“IPR”) of Claims 1-2, 4-5, and 9 (the “challenged claims”) of U.S. Patent No. 7,929,949 (“the ’949 Patent”) (Ex-1001), currently assigned to Multimodal Media LLC (“PO”).

The challenged claims are generally directed to enabling a recipient to interact with a message containing, for example, both text and audio, as well as an advertisement by clicking a link embedded in the message. Ex-1001, Cl. 1. Specifically, the ’949 Patent purports to disclose that the sender creates an interactive multimodal message (*i.e.*, a message that contains text and also audio, graphics, or other multimedia content), which the recipient accesses by clicking a link in a notification sent to the recipient. *Id.* According to the ’949 Patent, the recipient is then able to interact with the multimedia content by, for example, replying to or forwarding it to another recipient. *Id.*

The prior art discloses enabling recipient interaction with an interactive multimodal message—including the well-known configuration of a client application and a server performing their routine functions—and renders the challenged claims unpatentable. Accordingly, the challenged claims of the ’949 Patent are invalid as obvious over the prior art.

This Petition presents grounds that the examiner did not consider during prosecution. These grounds are more than reasonably likely to prevail, and this Petition should be granted.

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

Real Parties-in-Interest: Petitioner identifies the following real parties-in-interest: Google LLC², Samsung Electronics Co. Ltd., and Samsung Electronics America, Inc.

Related Matters: A decision in this proceeding could affect or be affected by the following proceedings, which assert infringement of the challenged '949 Patent: (1) *Multimodal Media LLC v. Samsung Electronics Co. Ltd., et al.*, 2:22-CV-00462 (E.D. Tex.); and (2) *Multimodal Media LLC v. TCL Technology Group Corporation et al.*, 2:22-cv-00463 (E.D. Tex.). Co-Petitioner Google has not been named in, and is not a party to, any litigation involving the '949 Patent.

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III. FEE AUTHORIZATION

Pursuant to 37 C.F.R. §42.15(a) and §42.103(a), the PTO is authorized to charge any and all fees to Deposit Account No. LA500639.

IV. GROUNDS FOR STANDING

Petitioner certifies that the '949 Patent is available for review, this Petition is timely filed, and Petitioner is not barred or estopped from requesting review.

V. PRECISE RELIEF REQUESTED

Petitioner requests review and cancellation of the challenged claims as unpatentable based on the following grounds, supported by a declaration from Dr. Benjamin Bederson. Ex-1002 ¶¶1-31.

Ground	Summary
1-2	Claims 1-2, 4-5, and 9 are obvious over Still (Ex-1008) alone or Still in view of Levkovitz (Ex-1009)
3-4	Claims 1-2, 4-5, and 9 are obvious over Mumick'046 (Ex-1010) alone or Mumick'046 in view of Levkovitz (Ex-1009)

VI. THE CHALLENGED PATENT

The '949 Patent purports to describe a method for enabling recipient interaction through “an interactive multimodal message triggered on” the recipient’s mobile device. Ex-1001, 1:20-22. A multimodal message is, for example, a text message accompanied by a voice message notification. Ex-1001, 3:15-17. Simply put, the patent purports to allow the recipient to interact with a received multimodal message by accessing a pointer (i.e., a link) in the notification message sent to their device. Ex-1002 ¶¶47-48. Figure 1 illustrates the method of the invention:

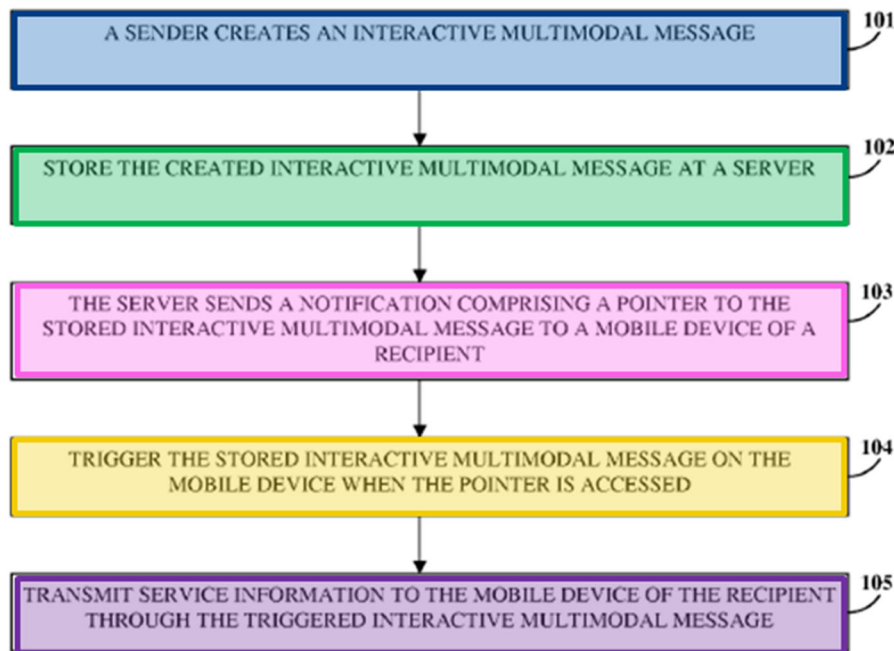


FIG. 1

As the figure illustrates, a sender purports to create an “interactive multimodal message”—for example, a message that contains a combination of text, voice, and other modalities such as image or video—utilizing a client application available to the sender (101, blue). Ex-1001, 3:15-17, 3:50-52. The interactive multimodal message is purportedly stored at a server (102, green). Ex-1001, 4:9-11. Next, the server purports to send a notification to the recipient’s mobile device, which includes “a pointer to the stored” message (103, pink). Ex-1001, 4:11-12, 15-16. The stored message is purportedly “triggered” on the recipient’s device when the recipient “accesses the pointer in the notification” through their device (104, yellow). Ex-

1001, 4:22-25. The triggering event may occur when the recipient “activates a link in a text message” on their device. Ex-1001, 4:25-30. “Service information” such as an advertisement is also transmitted to the recipient’s device “through the triggered ... message” (purple, 105). Ex-1001, 4:36-40. Finally, the recipient purports to “interact[] with the triggered ... message” (not shown in Figure 1), such as by replying to the message or forwarding it “to one or more second recipients.” Ex-1001, 5:33-39.

VII. PROSECUTION HISTORY OF THE '949 PATENT

The '949 Patent was filed on February 3, 2009. The examiner did not issue any prior art rejections during prosecution. Ex-1004. On January 6, 2011, the examiner allowed all pending claims. Ex-1004, 121-124; Ex-1002 ¶¶49-50.

VIII. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art at the relevant time (“POSITA”) would have had a bachelor’s degree in electrical engineering, computer science, computer engineering, or a related field, and two-three years of experience with multimedia and Internet-related communications technologies, or the equivalent, with additional education substituting for experience and vice versa. Ex-1002 ¶¶28-30.

IX. PRIORITY DATE

The earliest possible priority for the '949 Patent is February 3, 2009. Petitioner takes no position on the proper priority date for each claim of the '949 Patent.

Assuming this earliest date, all prior art references asserted in this petition are prior art. Ex-1002 ¶51.

X. CLAIM CONSTRUCTION³

Petitioner interprets the claims of the '949 Patent according to the *Phillips* claim construction standard. 37 C.F.R. §42.100(b). For the purposes of this Petition, Petitioner does not believe that any term requires explicit construction to resolve the issues presented in this Petition, except for the terms below. All others should be given their plain and ordinary meaning. To the extent that terms were construed or agreed upon by the parties in the *Oppo* district court litigation against an unrelated party,⁴ Petitioner applies these constructions for purposes of this Petition, except where noted below. Ex-1002 ¶¶52-59.

A. “multimodal message” and “interactive multimodal message” (Claims 1-2, 4, 9)

In the *Oppo* district court litigation, the claim term “multimodal message” was construed by the district court to mean “seamless combination of graphics, text, and audio output or a combination of the above modalities with speech, text, and touch input or vice versa”; and the term “interactive multimodal message” was construed

³ Petitioner has adopted these constructions only for purposes of this Petition and reserves the right to propose and/or adopt any construction in any pending litigation matter.

⁴ On September 6, 2023, the *Oppo* litigation was dismissed due to settlement (Ex-1046).

to mean “Plain meaning (apart from the Court’s construction of ‘multimodal message,’ above).” Ex-1021, 8-14. Petitioner applies these constructions for purposes of this Petition and explains herein that the prior art in the Petition invalidates the challenged claims under these constructions.

B. “service information” (Claims 1, 5)

This claim term was construed by the district court in the *Oppo* litigation—pursuant to an agreement by the parties—to mean “service-related content information.” Ex-1021, 14. Petitioner disagrees that this prior party-agreed construction adds anything beyond the language of the claim itself.⁵ Nonetheless, Petitioner applies this construction for purposes of this Petition only⁶ and explains herein that the prior art in the Petition invalidates the challenged claims under this construction.

⁵ Petitioner also contends that, under the printed matter doctrine, “service-related content information” should be given no patentable weight because it claims the content of information and is not functionally related to its substrate. *See, e.g., Ingenico Inc. v. Ioengine, LLC*, IPR2019-00879, Paper 69 at 58-60 (no patentable weight be given to “content” portion of the claim) (PTAB Sept. 21, 2020) (citing *Praxair Distrib., Inc. v. Mallinckrodt Hosp. Prod. IP Ltd.*, 890 F.3d 1024, 1032 (Fed. Cir. 2018) (“a claim limitation is directed to printed matter ‘if it claims the content of information’”)); *see also Xactware Solutions, Inc. v. Eagle View Techs., Inc.*, IPR2016-00592, Paper 50 at 15-18 (PTAB Aug. 25, 2017) (same).

⁶ Petitioner reserves the right to challenge this construction in district court litigation.

C. “client application” (Claim 1)

The parties in the *Oppo* litigation agreed that this claim term should be construed to mean “a program present on the sender’s mobile device.” Ex-1021, 15, 48. Petitioner disagrees that this prior party-agreed construction is consistent with the plain meaning of this claim element. Petitioner proposes instead that the full claim term “*a client application available to said sender*” be construed as “*a program present on or accessible by the sender’s mobile device.*”

In the *Oppo* litigation, the parties agreed to construe the term “client application” in both the ’949 Patent and (unrelated) ’978 Patent to have the same meaning above. But the “client application” claim term at issue in the ’978 Patent recites “a client application *on a mobile device.*” Ex-1021, 18.⁷ The term here, however, is used in a larger context with different words. Here, it recites “a client application *available to* said sender.” Ex-1001, Cl. 1.

’978 Patent, Claim 1	’949 Patent, Claim 1
“client application on a mobile device”	“client application available to said sender”

The different phrasing between the ’978 and ’949 Patents’ versions of the client application limitations—“on a” sender device⁸ as opposed to “available to” a

⁷ Emphases have been added herein unless otherwise noted.

⁸ Claim 1 of the ’978 Patent recites a “user,” not a “sender” per se, but the user is sending to a “recipient.”

sender—is significant. It suggests that the “client application” here should be construed differently and, in this case, more broadly. *See Ancora Techs., Inc. v. Apple, Inc.*, 744 F.3d 732, 734-35 (Fed. Cir. 2014) (reasoning that independent claim 1’s recitation of a “program” and independent claim 15’s recitation of an “application software program,” suggested the claim 1’s “program” was not limited to application software programs). Specifically, a client application may be “available to” a sender without necessarily requiring that the application be resident “on a” sender’s device. For example, it may be available to the sender by accessing the application over a network connection.

And this is what the ’949 Patent specification actually describes. Specifically, the specification states that “[t]he client application may be available to the sender, *for example*, on a mobile device of the sender, *over a voice call, or via a web interface.*” Ex-1001, 2:10-12; *see also id.* at 3:54-59 (“The client application 202 may be provided as a functionality in a compose function available in a voice ... SMS[] application provided over a *voice connection.*”). The ’949 Patent thus explicitly envisions that the client application can be accessible to the sender’s mobile device via a web interface, for example, over a network connection and is not limited to a physical implementation on the sender’s mobile device. Therefore, Petitioner proposes that the full claim term “*a client application available to said*

sender” be construed as “*a program present on or accessible by the sender’s mobile device.*”

This construction is consistent with the intrinsic evidence and affords the claim the plain meaning that would be readily understood by a POSITA in the context of the disclosure, rather than improperly limiting it to one embodiment (i.e., “on a mobile device”) while excluding others (i.e., “over a voice call, or via a web interface” or through a “voice connection”). *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1117-18 (Fed. Cir. 2004) (“particular embodiments appearing in the written description will not be used to limit claim language that has broader effect”); *Hyperphrase Techs., LLC v. Google, Inc.*, 260 F. App’x 274, 280 (Fed. Cir. 2007) (same; “A claim construction that excludes an embodiment of the relevant claim(s) is typically incorrect.”). Petitioner applies this construction for purposes of this Petition. Regardless, Petitioner explains that the prior art in the Petition invalidates the challenged claims under both this construction and the prior agreed-to construction from the *Oppo* litigation. Ex-1002 ¶¶56-58.

D. “pointer” (Claim 1)

The parties in the *Oppo* litigation agreed that this claim term should be construed to mean “a link that directs to the interactive multimodal message.” Ex-1021, 47. Petitioner applies this construction for purposes of this Petition and

explains herein that the prior art in the Petition invalidates the challenged claims under this construction.

XI. BRIEF DESCRIPTION OF THE APPLIED PRIOR ART

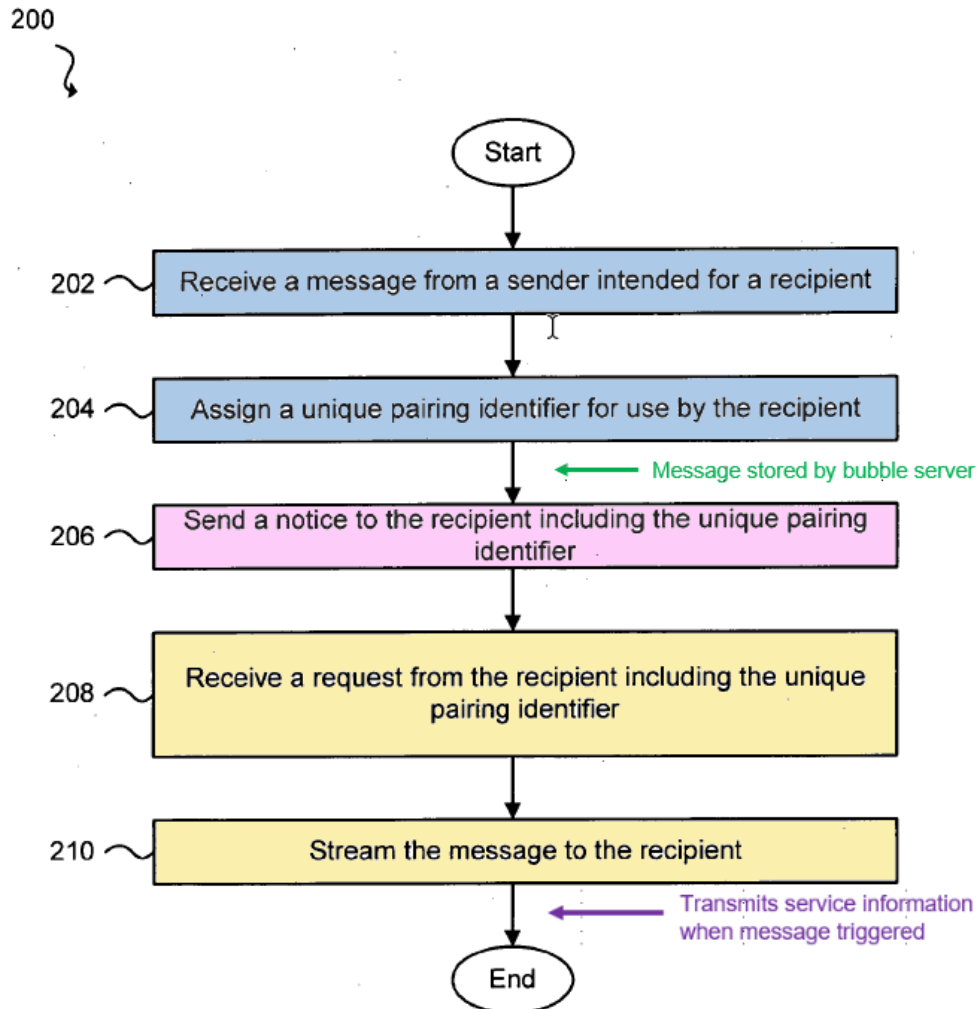
A. Still (Ex-1008)

Still, titled “Systems and Methods for Distributing Messages to Mobile Devices,” was filed on January 30, 2008 and published as US2008/0182603 on July 31, 2008. Ex-1008, Cover. Still is §§102(a) and 102(e) prior art.

Still discloses a method for delivering multimedia content and/or messages utilizing an SMS (Ex-1008, Abstract), or short voice message service (“SVMS”) telecommunication network (*id.* ¶5). Specifically, a “sender may use the mobile device 110 (FIG. 1) to send the message” to an intended recipient. *Id.* ¶27. As shown in Figure 2, a bubble⁹ server receives the message from the sender, *id.* ¶27 (blue, 202), and assigns a unique pairing identifier for the recipient to use, *id.* ¶28 (blue, 204). The message is “stored on [the] bubble server” (green). Ex-1008 ¶31. The bubble server then sends a notice to the recipient, which includes the unique pairing identifier, *id.* ¶29 (pink, 206). The recipient may request the message by sending a

⁹ At issuance, Still was assigned to a company called Bubble Motion PTE Ltd. Still’s reference to a “bubble” server thus appears to identify the company that manufactured the server and/or developed the alleged inventions of the Still prior art.

message request to the server using their mobile device “to click, tap, and/or otherwise enter the unique pairing identifier.” Ex-1008 ¶30.



The server receives a request for the message including the unique pairing identifier from the recipient, *id.* ¶30 (yellow, 208), and streams the message to the recipient, *id.* ¶31 (yellow, 210). “[M]ultimedia content ... may be associated with the message” and “streamed to the recipient each time” they request the message. Ex-1008 ¶45. The multimedia content may include “video content, voice messages,

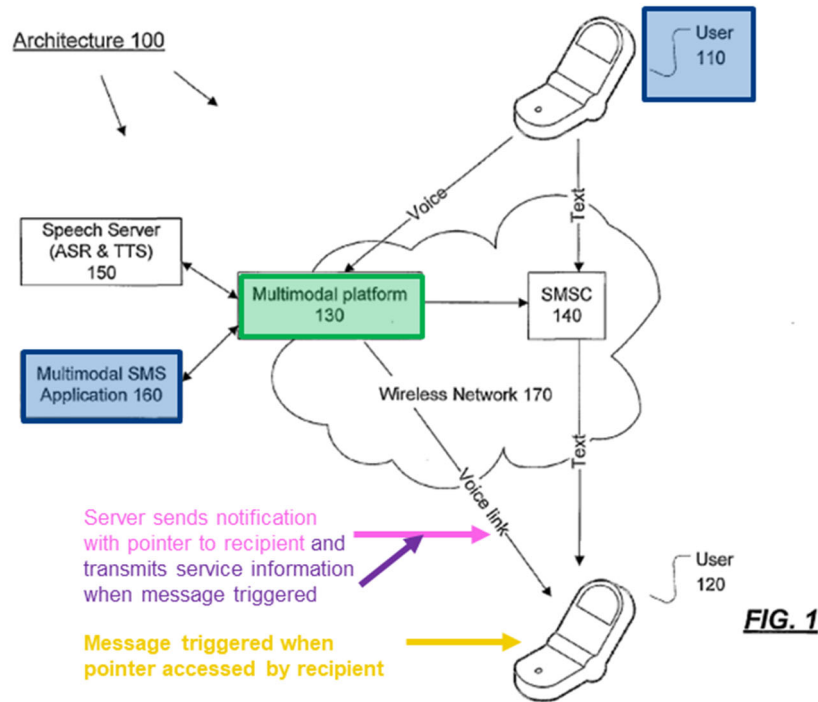
animation content, or other forms of content for communication, advertising, entertainment, etc.” *Id.* (purple). The user may also interact with the message, such as by forwarding it “to a friend,” calling in to listen to it, or viewing the content by “pulling” it to their mobile device. Ex-1008 ¶26; Ex-1002 ¶¶60-62.

B. Mumick’046 (Ex-1010)

Mumick’046, titled “Methods for Identifying Messages and Communicating with Users of a Multimodal Message Service,” was published as US2008/0004046 on January 3, 2008. Ex-1010, Cover. Mumick’046 is §102(b) prior art.

Mumick’046 discloses purported methods of combining speech with text “to create a multimodal SMS service,” wherein a user is provided within each message a link that allows for the retrieval or addition “of a voice message associated with an SMS text message.” Ex-1010, Abstract. Referring to Figure 1, Mumick’046 explains that the user “creates a voice message by directly calling the multimodal platform” or “replying to a previous multimodal SMS or text SMS[.]” and following prompts “to create a voice recording.” Ex-1010 ¶24. After the voice “recording is completed and stored” at the multimodal platform (green), a text message is transmitted to the recipient, “notifying them that a voice message has been recorded and providing a link,” (pink) “which can be activated to listen to the message” (yellow). Ex-1010 ¶24. In particular, the multimodal SMS application 160 (blue) “combines the text message ... with a link to a spoken message” utilizing “a message identifier.” Ex-

1010 ¶27. The “combined message” is transmitted to the recipient who may then “read the text message” and obtain the associated voice message from the multimodal SMS application, “through the message identifier.” Ex-1010 ¶27.

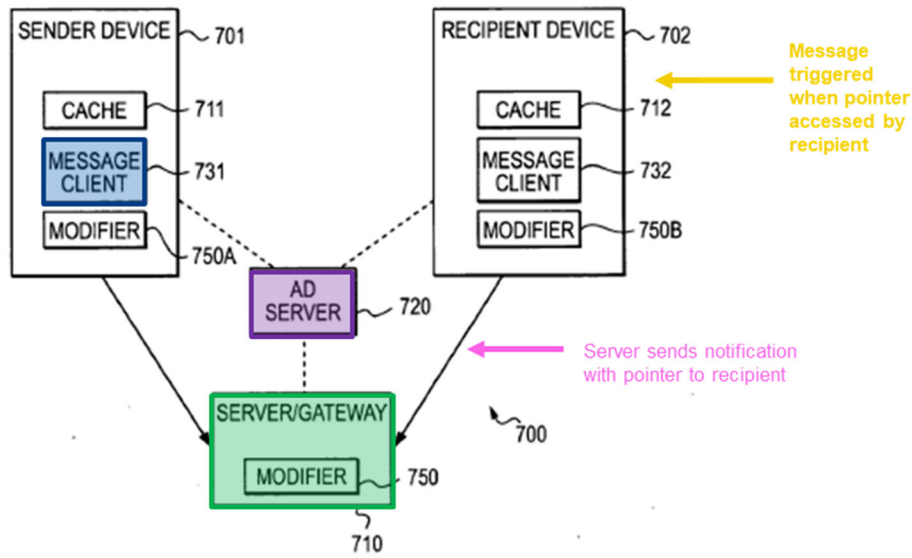


The SMS message “may also contain additional content provided by the sender” (Ex-1010 ¶24), such as “information helpful in identifying the message (e.g. the first few words of the original text message).” *Id.* ¶63. Moreover, Mumick’046’s system enables the recipient “to reply to a voice mail by SMS,” by presenting a menu to the recipient, which allows the recipient to record a message and send it to the original user “as a multimodal SMS message.” Ex-1010 ¶55; Ex-1002 ¶¶63-65.

C. Levkovitz (Ex-1009)

Levkovitz, titled “Device, System and Method of Presentation of Advertisements on a Wireless Device,” was published as US2007/0088852 on April 19, 2007. Ex-1009, Cover. Levkovitz is §102(b) prior art.

Levkovitz discloses sending and receiving SMS/Multimedia Messaging Service (“MMS”) messages “having embedded therein a content item served by [an] ad server.” Ex-1009 ¶170. Specifically, Levkovitz discloses with Figure 7 that the sender device “may include a message client” (blue), which incorporates a software and/or hardware component that is “able to send and/or receive a message, a textual message, a graphical message, a SMS message, a MMS message, an IM item,” an Email message, “or the like.” Ex-1009 ¶240. Moreover, the message client can be employed as an “application” that is “able to send messages, receive messages, compose or edit outgoing messages intended for transmission, present or view or playback incoming message[s], delete previous messages, or the like.” *Id.* ¶240. The messaging client may also retrieve “content items or advertisements” using an ad server (purple). *Id.* The messages may be sent from the sender to the recipient “through a wireless communication server/gateway” (green). *Id.* ¶233.



Levkovitz further discloses that certain system components “may remotely, directly or indirectly trigger” the recipient’s device “to transmit a content request” by sending a message “having a link or a shortcut which may trigger a content request by” the recipient’s device (yellow). Ex-1009 ¶175. Specifically, a recipient “may receive an indication that an incoming” content item is received, in which case, the recipient can “press or click” on a soft-key and be provided user-selectable operations that are associated with the message or the “content item embedded therein” (e.g., advertisement) via an input unit (pink). Ex-1009 ¶269; Ex-1002 ¶¶66-68.

XII. DETAILED EXPLANATION OF THE UNPATENTABILITY GROUNDS

A. Grounds 1-2: Challenged claims are rendered obvious by Still alone or Still-Levkovitz

1. A POSITA would have been motivated to combine Still-Levkovitz and had a reasonable expectation of success

In addition to the reasons set forth below, a POSITA would have been motivated to combine the teachings of Still and Levkovitz (“Still-Levkovitz”) and would have had a reasonable expectation of success in doing so. Ex-1002 ¶¶69-70. Each relates to methods for delivery of multimedia content using SMS messages that include a notification sent to a recipient that includes a pointer, which in turn links to the multimodal message stored on a server. Ex-1008, Abstract, ¶¶7-8; Ex-1009 ¶¶170, 175. Still’s pointer or link is called a “unique pairing identifier” for the message recipient to use to retrieve the message from the server, which then “stream[s] the message to the recipient.” Ex-1008 ¶7. Still’s recipient may forward the message to another recipient. Ex-1008 ¶26. Similarly, Levkovitz discloses methods for sending and receiving SMS/MMS messages using a message client on the sender’s device, Ex-1009 ¶240, wherein the messages have “embedded therein a content item” such as an advertisement, *id.* ¶170. Levkovitz discloses that certain system components may “trigger” the recipient’s device “to transmit a content request” by sending a message that includes “a link or a shortcut.” Ex-1009 ¶175. For example, a “user may receive an indication that an incoming commercial content

item” (or message) is received, in which case, the user can “press or click” on a soft-key and be provided user-selectable operations that are associated with the message or the “content item embedded therein” (e.g., advertisement). Ex-1009 ¶269. The operations may include virtually visiting, browsing, or redirecting the user to “a certain website (e.g., through a [URL] or other shortcut or pointer, which may be pre-provided with the content item).” *Id.*

A POSITA would have been motivated to implement Levkovitz’s teachings of embedding advertisements in an incoming message (and enabling recipient interaction with the same) using Levkovitz’s ad server (Fig. 7 (purple)) with Still’s system (Fig. 4 (purple)). Ex-1002 ¶71. Still already discloses that content may include “content for ... advertising.” Ex-1008 ¶21. Levkovitz discloses that “text analysis” of text messages can be used “to selectively target advertisements to” the user such that if they receive or send a text message having the keyword “football” then “the system may modify” the text message “by selectively inserting or adding an advertisement related to that keyword.” Ex-1009 ¶222. Thus, a POSITA would have known that implementing Levkovitz’s teachings to embed an advertisement into an incoming message and provide user-selectable options for user interaction with Still’s system would result in more customizable and targeted advertising for users. Ex-1002 ¶71.

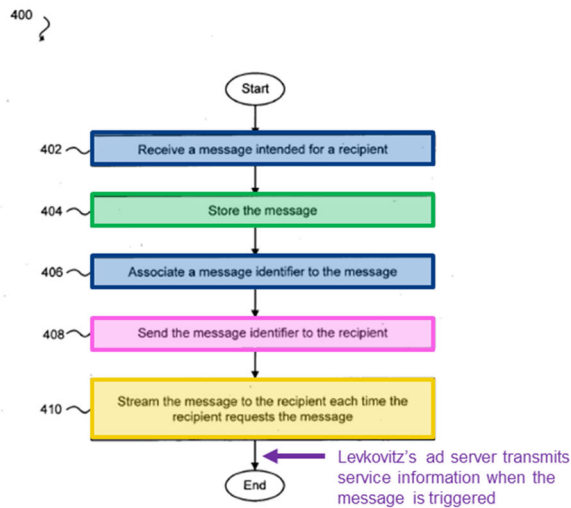


FIG. 4

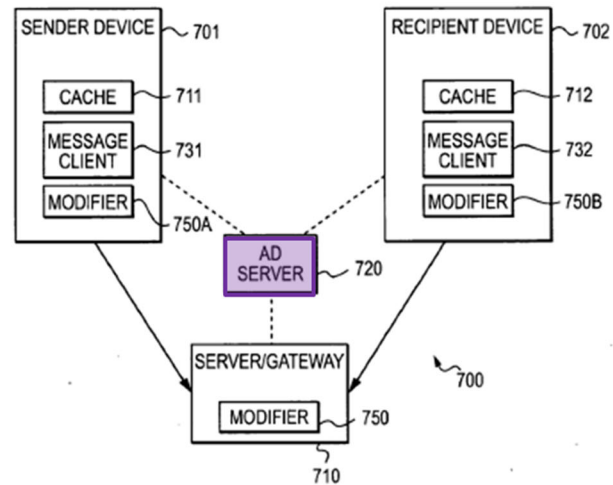


FIG. 7

A POSITA would have been motivated to combine Still-Levkovitz because they would have recognized a benefit of implementing Levkovitz's teachings of embedding advertisements in an incoming message and providing user-selectable operations that enable the recipient to interact with the advertisements (and messages) with a system like Still to provide users customized advertisements based on their content request and allow them to control what advertisements they interact with. Ex-1002 ¶72; *see also id.* ¶¶32-46; Exs-1025-1033; Exs-1038-1045.

A POSITA would also have had a reasonable expectation of success in implementing the combined teachings of Still-Levkovitz. Ex-1002 ¶73. Still and Levkovitz both disclose methods for enabling recipient interaction through the delivery of multimodal messages using familiar elements such as mobile devices,

SMS messaging, and servers that a POSITA would have understood are amenable to various well-understood and predictable combinations, as explained in further detail below. *Id.*; Ex-1008 ¶21; Ex-1009 ¶170; Ex-1030; Ex-1033; Ex-1040.

2. Independent Claim 1

- a. **Element 1[pre]: A method of enabling a recipient to interact with an interactive multimodal message triggered on a mobile device of said recipient, comprising the steps of:**

Still alone or Still-Levkovitz teaches Claim 1's preamble to the extent it is limiting. Ex-1002 ¶74. Still teaches an interactive multimodal message from a sender triggered on a mobile device of the recipient. Ex-1008 ¶7. Specifically, Still teaches receiving a message from a sender for an intended recipient, using a server; assigning a unique pairing identifier for use by the recipient; and sending a notice that includes the unique pairing identifier to the recipient. *Id.* The recipient may "request[] the message, the request including the unique pairing identifier" and the server "stream[s] the message to the recipient using the server." Ex-1008 ¶7; *see also id.* ¶8 (similar disclosures using a "message identifier"). Still further states that "[a] multimedia content ... may be associated with the message" and "streamed to the recipient each time" they "request[] the message." Ex-1008 ¶45. The multimedia content may include "music, electronic books, and other forms of audio entertainment content, as well as video content, voice messages, animation content, or other forms of content for communication, advertising, entertainment, etc." *Id.*;

see also id. ¶54 (discussing input/output interface for controlling and accessing the bubble server including keyboard, keypad, and touchscreen). A POSITA would have understood that Still's messages with multimedia content are interactive multimodal messages because they comprise a seamless combination of graphics, text, and audio output or a combination of the same with speech, text, and touch input. Ex-1002 ¶74.

Still also teaches enabling the recipient to “interact” with the triggered interactive multimodal message. Ex-1008 ¶22. Specifically, Still states that the recipient “may access the content ... to listen and/or view” it, “dedicate” it to a recipient, or “forward” it to a recipient. *Id.*; *see also* Ex-1001, 5:34-39 (examples of recipient “interaction” include the recipient “forwarding the interactive multimodal message” to another recipient); Ex-1002 ¶75.

b. Element 1[a]: creating said interactive multimodal message by a sender using a client application available to said sender, wherein said created interactive multimodal message is stored at a server;

Still alone or Still-Levkovitz teaches Element 1[a]. Ex-1002 ¶76.

(Ground 1) Still teaches creating an interactive multimodal message (i.e., text and multimedia content). *See* Ex-1008, Abstract (“A system and method for delivering messages and/or multimedia content using a short message services (SMS) telecommunication network.”).

Still teaches creating the interactive multimodal message “using a client application available to said sender.” Ex-1002 ¶77. Using their mobile device 110, the sender can create the interactive multimodal message by creating and sending an SMS message for an intended recipient to the bubble server (202, blue). Ex-1008 ¶27 (“[T]he bubble server 102 ... receives a message from a sender intended for the recipient. ... The sender may use the mobile device 110 ... to send the message.”); *see also id.* ¶34 (“The sender may associate a multimedia content ... with the message.”). A sender may access multimedia content 106 via the bubble server 102. Ex-1008 ¶21. A sender may listen to and/or view the content, and/or forward the content to a recipient. *Id.* A POSITA would have understood that Still’s web browser on the mobile device, which accesses the underlying functionality and software of the bubble server via “the web” is a program present on or accessible by the sender’s mobile device that is used by a sender to create a message, such as an SMS messaging application with web search capabilities or a web browser. Ex-1002 ¶¶78-81; Ex-1025, 91.

The bubble server is a network-based server capable of running applications, maintaining storage, and accessing other network components. Ex-1008 ¶¶19 (bubble server “may be a computing device” that stores and processes instructions and data, and communicates with mobile devices), 52 (comprises a processor, memory and storage system, I/O interface, and display interface). A POSITA would

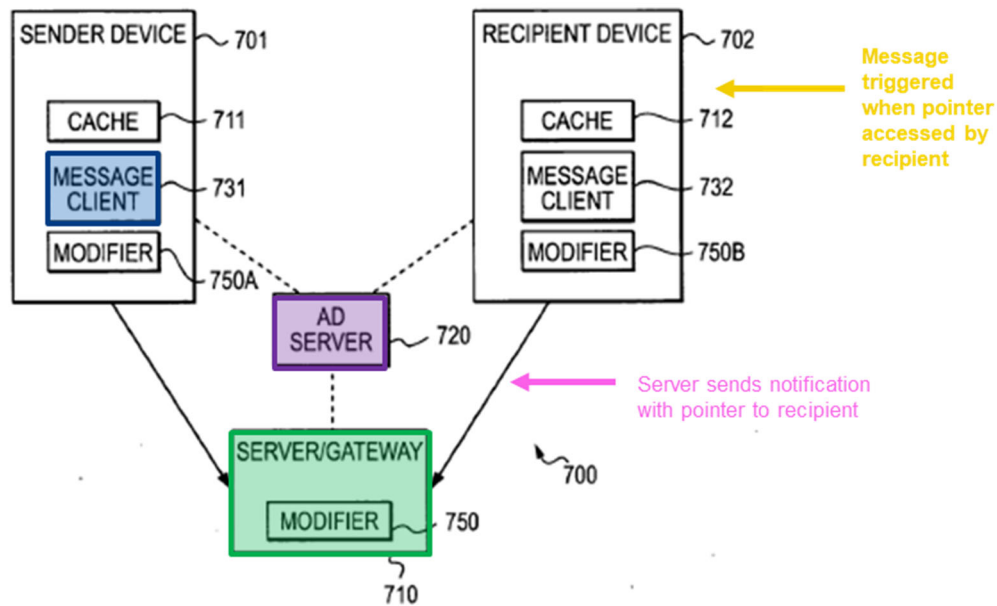
have recognized that a portion of the application necessary to create the interactive multimodal message resides on the bubble server and is “available to said sender.” Ex-1002 ¶¶82-85.

Although unnecessary in view of the construction of “client application available to said sender” discussed above (*see* Section X.C), a POSITA would also have understood that the details of which application components are put on the client, versus put on the server and accessed by the client, would have been a matter of routine design choice to a POSITA. Ex-1002 ¶86. As an example, a client application entirely on the sender’s device could do all the creating of the interactive multimodal message. *Id.* It could access content locally on the sender device—such as photographs or audio recordings—and assign unique pairing identifiers itself, and then communicate the entire interactive multimodal message to the bubble server, which would then forward it to recipients using standard protocols. Ex-1002 ¶¶86-87.

Finally, as claim limitation 1[a] requires, Still also “teaches wherein said created interactive multimodal message is stored at a server.” Ex-1008 ¶31. Still specifically states that “[t]he message may be *stored on [the] bubble server.*” *Id.*

(Ground 2) Levkovitz teaches creating an interactive multimodal message by a sender using a client application *on the* sender’s mobile device. Ex-1009 ¶240. Specifically, Levkovitz states that “sender device 701 may include *a message client*

731” (blue), which may incorporate a software component and/or hardware component that is “able to send and/or receive a message, a textual message, a graphical message, a SMS message, a MMS message, an IM item,” an Email message, “or the like.” Ex-1009 ¶240, Fig. 7 (annotated); *see also id.* ¶241 (message client 731 “may be installed in device 701”). Moreover, Levkovitz states that message client 731 can be employed as an “application” that is “able to send messages, receive messages, compose or edit outgoing messages intended for transmission, present or view or playback incoming message[s], delete previous messages, or the like.” *Id.* ¶240. Levkovitz additionally states that message client 731 “may be a wrapper application, a plug-in, an add-on, an envelope, or a front-end to a pre-programmed or pre-provided client application of device 701.” Ex-1009 ¶241; Ex-1002 ¶88.



A POSITA would have been motivated to implement Levkovitz’s teachings of a client application located on the mobile device (instead of partially on a server accessible by the mobile device’s application) with Still’s system. Ex-1002 ¶89; Ex-1045, 75. One motivation for doing so would be to have more functionality on the client mobile device such as the ability for a user to create messages in areas of limited connectivity or using locally stored audio and images. Ex-1002 ¶89. Levkovitz’s client application allows “the user to selectively browse and/or view ... one or more content items that are stored” in a content repository using a browser on the device. Ex-1009 ¶262. The browser operates when the device “is online and/or ... offline,” which “allow[s the] user to selectively browse and/or view stored content items without dependence on the operational status or location” of the

device. *Id.* A POSITA would have recognized the importance of this benefit to users and been motivated to implement this functionality with Still's system. Ex-1002 ¶89.

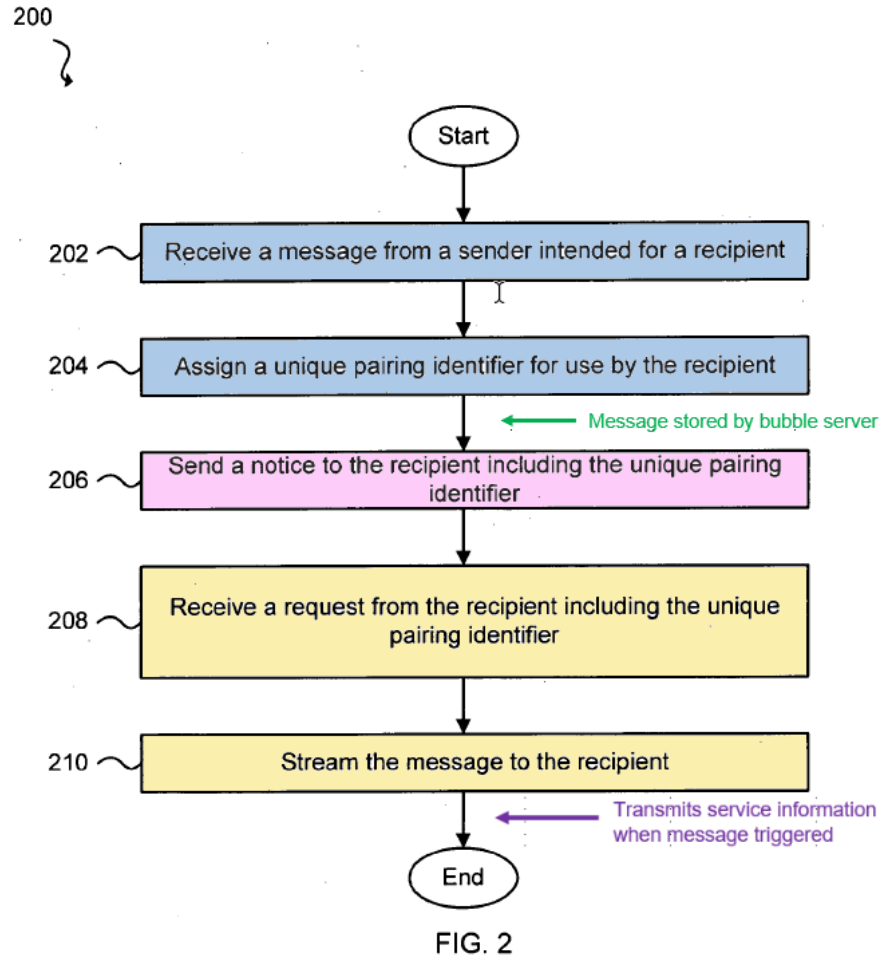
Another motivation would be to provide the user improved targeting of content such as advertisements. Ex-1002 ¶90. Levkovitz states that its client application may include a "content client" component (Ex-1009 ¶95) that periodically establishes a connection with an ad server "to upload technical information about [the] device" and/or "personal information about a user of [the] device." *Id.* ¶166. The ad server uses this information "to selectively choose one or more advertisements, which may be personally tailored to the user of" the sender device. *Id.* ¶194. Still already discloses that content may include "content for ... advertising." Ex-1008 ¶21. The Still-Levkovitz combination would therefore result in a more customized and user-friendly experience. Ex-1002 ¶91.

A POSITA would have had a reasonable expectation of success in combining Still-Levkovitz because both client and server are general purpose computing systems and each have the capacity to run software applications. Ex-1002 ¶92. As such, it would be well within the skill of a POSITA to implement the functionality of a client application on any of the computer systems of Still or Levkovitz. *Id.*; Ex-1030; Ex-1033; Ex-1040.

c. Element 1[b]: sending a notification comprising a pointer to said stored interactive multimodal message to said mobile device of the recipient by said server;

Still alone or Still-Levkovitz teaches Element 1[b]. Ex-1002 ¶93.

(Ground 1) Still teaches sending a notification comprising a pointer to the stored interactive multimodal message to the recipient's mobile device by the server. Ex-1002 ¶94. Specifically, once a message is received for an intended recipient (202, blue) Still "assigns a unique pairing identifier" for the recipient to use (204, blue). Ex-1008 ¶19, Fig. 2 (annotated). The unique pairing identifier enables "the recipient to receive the sender's messages." Ex-1008 ¶28. The bubble server then "sends a notice to the recipient," which includes "the unique pairing identifier" (206, pink). *Id.* ¶19. The notice is "displayed on the recipient's mobile device 110 as an incoming notice" and advises "the recipient that a message from the sender is available for" streaming. *Id.* ¶29. The recipient may send a request to the server for the multimedia message and/or content by using their mobile device "to click, tap, and/or otherwise enter the unique pairing identifier." Ex-1008 ¶30; Ex-1002 ¶95.



A POSITA would have understood that Still’s “unique pairing identifier” is a pointer because it is a link that directs to the interactive message. Ex-1002 ¶96 (discussing Still’s provisional application disclosures on “links” (Ex-1044, 3, 6-7), which is incorporated by reference in Still). A POSITA would have understood that at least in some circumstances, the unique pairing identifier will have a 1:1 relationship with the message (by pointing to the most recent message¹⁰ or when

¹⁰ This is strongly suggested because, in response to receiving a request including the unique pairing identifier in step 208, the server will “[s]tream *the message* to the recipient” at step 210. Ex-1008 ¶31.

there has been only one message shared between the sender and receiver). Ex-1002 ¶96; Ex-1008, Cl. 1 (server receives “a request from the recipient requesting the message, the request including the unique pairing identifier”). As such, Still’s “unique pairing identifier” is a pointer because it is used by the recipient (e.g., by clicking or tapping) to access the stored message.¹¹ Ex-1008 ¶28; Ex-1002 ¶¶97-99; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

(Ground 2) Levkovitz also teaches sending a notification comprising a pointer to a stored interactive multimodal message to the recipient’s mobile device. Ex-1009 ¶269. Specifically, Levkovitz states that a recipient “may receive an indication that an incoming commercial content item,” advertisement, or message is received, in which case, the recipient can “press or click” on a soft-key and be provided user-selectable operations via an input unit. *Id.* The user-selectable operations include virtually visiting, browsing, or redirecting the recipient to “a certain website (e.g., through a [URL] **or other shortcut or pointer**, which may be pre-provided with the content item).” *Id.*; *see also id.* ¶175 (a message is sent “having a link or a shortcut

¹¹ Although not required by the claim, Still also teaches an alternative message identifier embodiment that distinguishes between messages. Ex-1008 ¶8. A POSITA could have included the message identifier in addition to the unique pairing identifier, if seeking to provide a pointer to each of a series of messages from one sender, and would have been motivated to do so to provide additional flexibility to the recipient such as clicking on older messages to access them directly without having to listen to more recent messages first. Ex-1002 ¶96 n.21.

which may trigger a content request by” the recipient’s device). A POSITA thus would have recognized that Levkovitz specifies additional details and features (such as to “press or click” a link) that could be incorporated into the pointer/link taught by Still, and would have incorporated these features with Still’s system—to the extent additional capabilities were necessary—with a reasonable expectation of success. Ex-1002 ¶¶100-102.

d. Element 1[c]: triggering the stored interactive multimodal message on the mobile device of the recipient by accessing said pointer in said notification; and

Still alone or Still-Levkovitz teaches Element 1[c]. Ex-1002 ¶103.

(Ground 1) Still teaches triggering the server-stored interactive multimodal message on the recipient’s mobile device by accessing the pointer in the notification. Ex-1002 ¶104. Specifically, Still teaches that the unique pairing identifier that was assigned to the sender’s message by the bubble server (206, pink) is displayed on the recipient’s mobile device. Ex-1008 ¶28, Fig. 2 (annotated). A request from the recipient containing the unique pairing identifier is received by the bubble server (208, yellow) when the recipient uses their mobile device “to click, tap, and/or otherwise enter the unique pairing identifier.” Ex-1008 ¶30. The bubble server then streams the message to the recipient (210, yellow). Ex-1008 ¶31; *id.* ¶8 (similar disclosures using a “message identifier”). A POSITA would have understood that

the recipient accessing the pointer (e.g., unique pairing identifier) in the notification by clicking, tapping, or entering it “triggers the stored interactive multimodal message” because it causes the bubble server to stream the message to the recipient’s mobile device. Ex-1002 ¶¶105-109; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

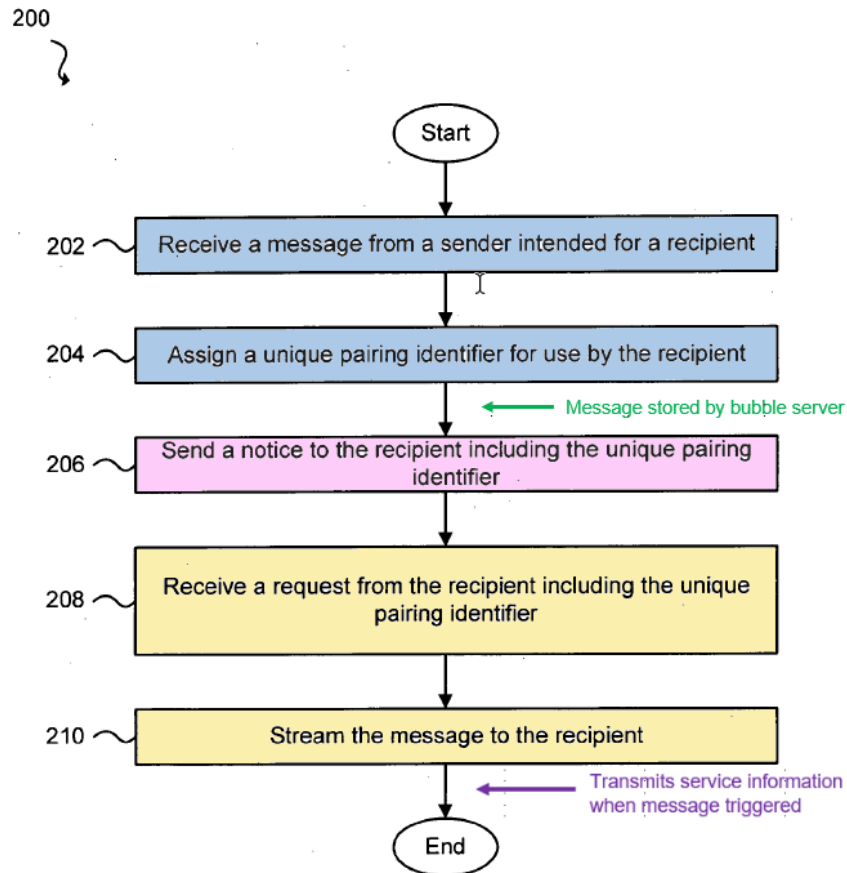


FIG. 2

(Ground 2) Levkovitz also teaches triggering a stored interactive multimodal message on the recipient’s mobile device by accessing a pointer in the notification. Ex-1009 ¶¶175, 269. Specifically, Levkovitz states that certain components of the system “may remotely, directly or indirectly trigger” the recipient’s device “to transmit a content request” by sending a message “having a link or a shortcut which

may trigger a content request by” the recipient’s device. Ex-1009 ¶175. A recipient receives “an indication that an incoming commercial content item,” advertisement, or message is received, and the recipient can “press or click” on a soft-key to be provided user-selectable operations via an input unit. Ex-1009 ¶269. The user-selectable operations may include virtually visiting, browsing, or redirecting the user to “a certain website (e.g., through a [URL] or other shortcut or pointer, which may be pre-provided with the content item).” *Id.* A POSITA thus would have recognized that Levkovitz specifies additional details and features (such as to “press or click” a link) that could be incorporated into the pointer/link taught by Still, and would have incorporated these features with Still’s system—to the extent additional capabilities were necessary—with a reasonable expectation of success. Ex-1002 ¶¶110-112.

e. Element 1[d]: transmitting service information to the mobile device of the recipient through said triggered interactive multimodal message;

Still alone or Still-Levkovitz teaches Element 1[d]. Ex-1002 ¶113.

(Ground 1) Still teaches transmitting service information to the recipient’s mobile device through the triggered message. Ex-1008 ¶45. Specifically, Still states that multimedia content “may be associated with” the message that is sent to the recipient, such as “content for ... advertising” that is “based on a demographic trait of the recipient, or the like.” *Id.* A POSITA would have understood that service-related content information encompasses advertising content that is “associated with

the message” sent to the recipient. Ex-1002 ¶¶114-116; Ex-1030, 27; Ex-1041; Ex-1043 ¶29; Ex-1001, 4:38-40 (“transmitted service information may, for example, comprise advertisements”). To the extent that PO argues “service information” requires something more specific, like certain kinds of information, such specific content would constitute non-patentable printed or descriptive material unrelated to the functioning of the substrate. *See supra* n.5.

(Ground 2) Levkovitz also teaches transmitting service information to the recipient’s mobile device through the triggered interactive multimedia message. Ex-1009 ¶170. Levkovitz teaches that a sender’s mobile device sends a message to a recipient’s mobile device; the system intercepts and modifies the message, “e.g., by adding, inserting, augmenting, appending or embedding into the message a content item stored in” the ad server; and the modified message is sent to the recipient’s mobile device. *Id.* Moreover, Levkovitz states that “a triggering event may occur in the” recipient’s mobile device such as “an incoming SMS message” being received, Ex-1009 ¶299, which causes an SMS viewer application to be automatically or manually opened or launched by the recipient’s mobile device, *id.* ¶300. The recipient “may select to view the incoming SMS message,” Ex-1009 ¶301, and the message “may be presented” along with “a content item embedded within (e.g., an advertisement)” on the mobile device display, *id.* ¶302.

A POSITA would have been motivated to implement Levkovitz's teachings of embedding advertisements in an incoming message with Still's system to provide users customized advertisements based on their content request and allow them to control what advertisements they interact with and would have had a reasonable expectation of success in doing so for the reasons explained in Section XII.A.1. Ex-1002 ¶¶117-120; Ex-1030; Ex-1033; Ex-1040.

f. Element 1[e]: whereby the interactive multimodal message triggered on the mobile device enables said recipient interaction.

Still alone or Still-Levkovitz teaches Element 1[e]. Ex-1002 ¶121. Still teaches that the interactive multimodal message triggered on the mobile device enables recipient interaction. Ex-1008 ¶26. Specifically, Still states that the recipient of the multimedia content “may call in and listen to” or view the content by “pulling” it to their mobile device. *Id.* The user may also “forward the content,” i.e., “push” it to another recipient or “call in and dedicate the content” to another recipient, “who may then receive” it. *Id.* Therefore, Still enables recipient interaction with the triggered interactive multimodal message in the same manner as the '949 Patent. Ex-1001, 5:34-39 (examples of recipient “interaction” include the recipient “forwarding the interactive multimodal message” to another recipient).

- 3. Dependent Claim 2: The method of claim 1, wherein the recipient triggers the interactive multimodal message using on[e] or more of dual-tone multi frequency dialogs, prompts in voice extensible markup language, automated speech recognition, and a hypertext transfer protocol post.**

Still alone or Still-Levkovitz teaches Claim 2. Ex-1002 ¶122.

Still teaches that the recipient triggers the interactive multimodal message using one or more of dual-tone multi frequency (DTMF) dialogs and hypertext transfer protocol (HTTP) post. Ex-1002 ¶123. For example, Still states that the content “may be accessed by several methods, including ... the web or telephone devices.” Ex-1008 ¶21; *see also id.* ¶23 (“Access to the content ... may be provided by the web, i.e., the Internet, via *HTTP*, FTP, and/or *telephone services*.”). A POSITA would have recognized that triggering the content using HTTP by clicking on the identifier would constitute an “HTTP” request such as a POST or GET request. Ex-1002 ¶124. A POSITA would also have understood that entering the unique pairing identifier manually on a telephonic keypad (as opposed to full alphanumeric) would have used DTMF tones (i.e., touch tones) to access the content, in the same way that voicemail can be accessed. Ex-1002 ¶¶125-126; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

- 4. Dependent Claim 4: The method of claim 1, wherein the interactive multimodal message is triggered on activating a link in a text message on the mobile device by the recipient.**

Still alone or Still-Levkovitz teaches Claim 4. Ex-1002 ¶127.

(Ground 1) Still teaches triggering the interactive multimodal message on activating a link in a text message on the recipient's mobile device. Ex-1008 ¶30. Specifically, Still teaches that a notice is transmitted to the recipient, which is "displayed on the recipient's mobile device ... as an incoming notice" and includes the unique pairing identifier that was assigned to the sender's message by the bubble server (206, pink). Ex-1008 ¶29, Fig. 2 (annotated). The notice includes text that advises "the recipient that a message from the sender is available for" streaming and may also describe the multimedia content so that the recipient may "determine whether to request" it. Ex-1008 ¶29. When the recipient uses their mobile device "to click, tap, and/or otherwise enter the unique pairing identifier," the pairing identifier is sent to the bubble server (208, yellow) to trigger the content. Ex-1008 ¶30. The message content on bubble server is then streamed to the recipient (210, yellow). Ex-1008 ¶31; *see also id.* ¶8 (similar disclosures using a "message identifier"). A POSITA would have understood that Still's description of clicking or tapping the unique pairing identifier is a disclosure of clicking a link to trigger the content because clicking or tapping is how a user conventionally interacts with a link. Ex-1002 ¶¶128-130 (discussing Still's provisional application (Ex-1044, 3, 6-7)).

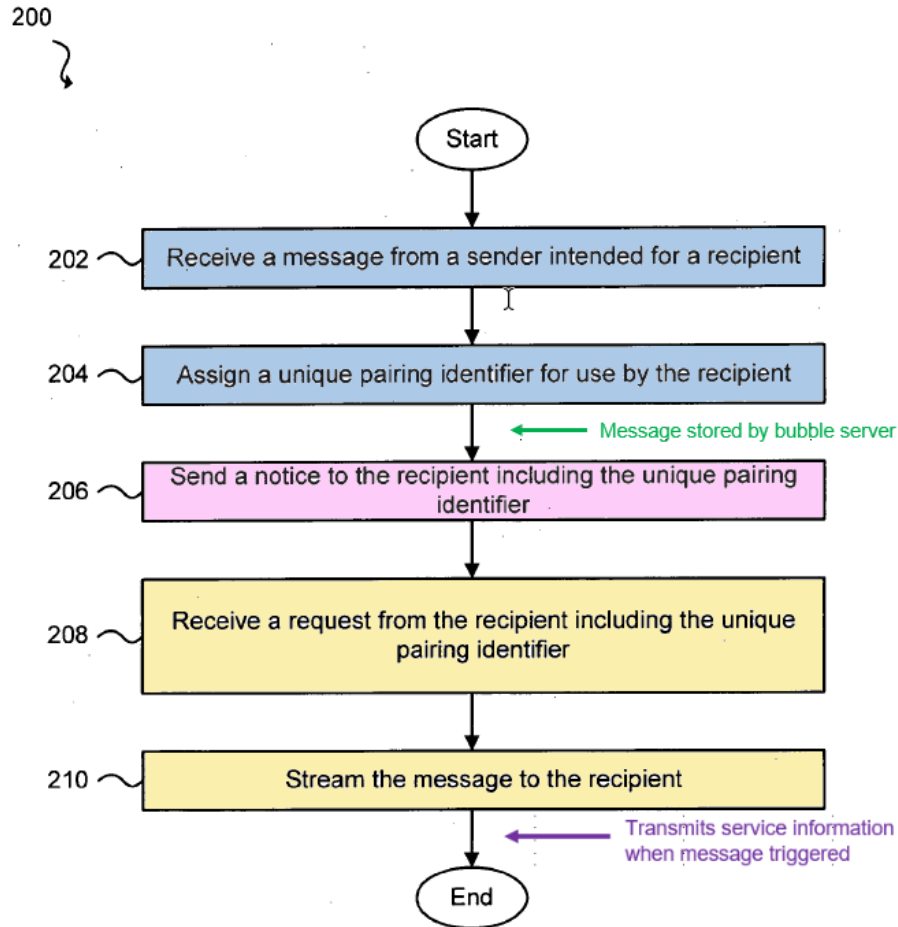


FIG. 2

Still also states that the bubble server may communicate with the recipient's device "using appropriate protocols, such as" SMS. Ex-1008 ¶20; *see also id.* ¶29 ("The notice may appear in an 'inbox' of the recipient's mobile device."). Thus, a POSITA would have understood that the "notice" with the unique pairing identifier (i.e., link) to the message may be sent to the recipient in the form of a text message. Ex-1002 ¶¶131-133; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

(Ground 2) Levkovitz also teaches triggering the interactive multimodal message on activating a link in a text message on the recipient's mobile device. Ex-

1009 ¶269. Specifically, Levkovitz teaches that certain components of the system may “trigger” the recipient’s device “to transmit a content request” by sending a message “having a link or a shortcut which may trigger a content request by” the recipient’s device. Ex-1009 ¶175; *see also id.* ¶39 (“message” includes SMS messages). A recipient receives “an indication that an incoming commercial content item,” advertisement, or message is received, and the recipient can “press or click” on a soft-key to be provided user-selectable operations via an input unit. Ex-1009 ¶269. The user-selectable operations may include virtually visiting, browsing, or redirecting the user to “a certain website (e.g., through a [URL] or other shortcut or pointer, which may be pre-provided with the content item).” *Id.* A POSITA would have understood that the recipient triggers the interactive message when they activate the link or URL in the message (which may be a text message) by pressing or clicking it to access a content item. Ex-1002 ¶134.

A POSITA would have recognized that Levkovitz specifies additional details and features (such as to “press or click” a link) that could be incorporated into the pointer/link taught by Still, and would have incorporated these features with Still’s system—to the extent additional capabilities were necessary—with a reasonable expectation of success. Ex-1002 ¶¶135-136.

5. Dependent Claim 5: The method of claim 1, wherein said transmitted service information provides the recipient with one or more options, wherein the recipient selects one of said provided options.

Still alone or Still-Levkovitz teaches Claim 5. Ex-1002 ¶137. Still alone or Still-Levkovitz teaches transmitted service information (*see* Section XII.A.2.e). *See, e.g.*, Ex-1008 ¶45; Ex-1009 ¶302.

(Ground 1) Still further teaches that the transmitted service information provides the recipient with one or more options, wherein the recipient selects one of the provided options. Ex-1002 ¶138. Specifically, the user in Still may “forward the content” to another recipient or “call in and dedicate” it to another recipient. Ex-1008 ¶26. A POSITA would have understood that these options provided to the recipient that the recipient selects from would also be applicable to advertising content that may be associated with the message that is sent to the recipient (*id.* ¶45). Ex-1002 ¶138 (discussing Still’s provisional application, Ex-1044, 3-5 (Still’s recipient can reply to an advertisement message)).

(Ground 2) Levkovitz also teaches that the transmitted service information provides the recipient with one or more options, wherein the recipient selects one of the provided options. Ex-1009, Abstract. Specifically, Levkovitz teaches that the recipient’s mobile device includes a display unit for displaying “user-selectable operations” that are “selectively associated with an advertisement embedded within

an incoming message.” *Id.* Selectable operations include calling “a destination related to the advertisement” and “storing a coupon included in the advertisement” locally for later presentation. Ex-1009 ¶67.

Moreover, Levkovitz teaches with Figure 13 an exemplary device display presenting “the incoming SMS message, followed by a textual advertisement” that includes user-selectable “options” and “back” actions (1372, 1374), which may be “associated with two, respective, keys of soft-keys of the” mobile device. Ex-1009 ¶302. At box 1350, “the user may select the ‘options’ action” and at box 1360, in response, “a menu may be presented,” displaying at least one user-selectable option, “which may be associated with the content item (e.g., the advertisement) presented in box 1370.” *Id.* ¶303. Box 1380 depicts an exemplary screen-shot of the resulting device display, including a menu with two portions: “an upper portion showing selectable options related to the incoming SMS message (e.g., reply to the sender, forward the message, or delete the message), and a lower portion showing selectable options related to the content item (e.g., the advertisement) of box 1370 (e.g., show a special offer related to the advertisement, show a map of a location related to the advertisement, call a store or cinema or another destination related to the advertisement, buy tickets or goods related to the advertisement, or the like).” *Id.*

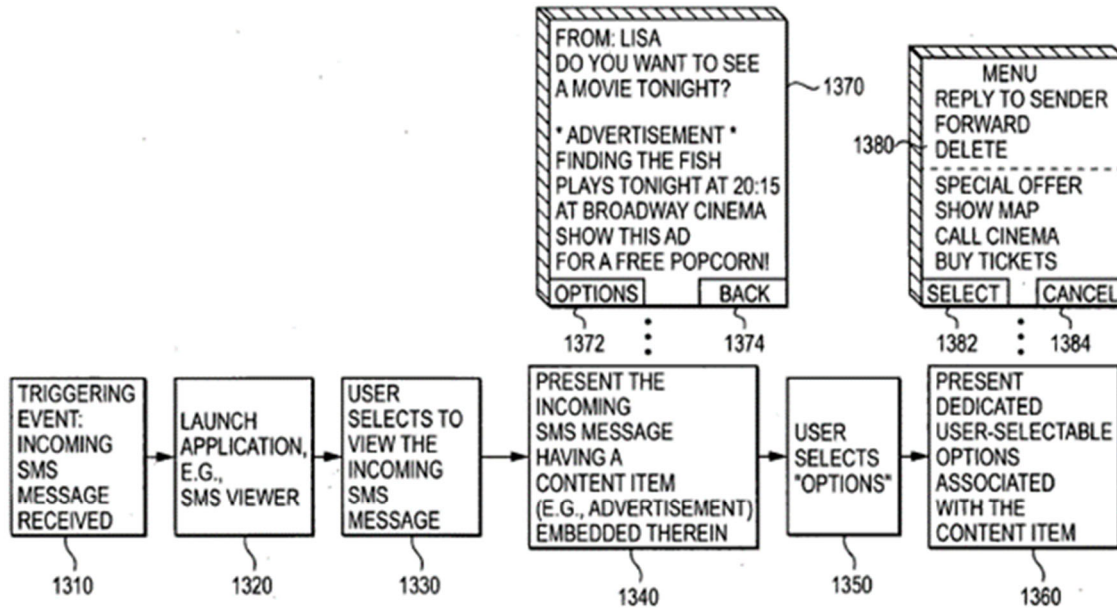


FIG. 13

A POSITA would have been motivated to implement Levkovitz's teachings of embedding advertisements in an incoming message and providing user-selectable operations that enable the recipient to interact with the advertisements (e.g., to store a coupon or buy tickets or goods relating to an advertisement) with Still's system to enable such features and had a reasonable expectation of success in doing so for the reasons explained in Section XII.A.1. Ex-1002 ¶¶139-142. Moreover, both Still and Levkovitz teach transmitting advertisements to the recipient and interaction capabilities such as forwarding and replying to content. Ex-1008 ¶¶26, 45; Ex-1009, Fig. 13 (box 1380); *see also* Ex-1044, 3-5 (Still's recipient can reply to an advertisement message). Thus, a POSITA interested in additional details on user-selectable options for interacting with advertisements in Still's system would have

looked to Levkovitz and implemented those options with Still's system. Ex-1002 ¶¶143-145; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

6. Dependent Claim 9: The method of claim 1, further comprising the step of forwarding the interactive multimodal message to a plurality of second recipients simultaneously.

Still alone or Still-Levkovitz teaches Claim 9. Ex-1002 ¶¶146-147.

Still teaches an interactive multimodal message (*see* Section XII.A.2.a). *See, e.g.*, Ex-1008 ¶¶45, 54. Still further teaches forwarding the interactive multimodal message to another recipient. Ex-1008 ¶22. Specifically, Still teaches that the mobile device can “forward a multimedia content to a recipient.” *Id.* Moreover, Still states that the recipient may “forward the content ... to a friend.” Ex-1008 ¶26. Still further explains that “[t]he content ... may be one or more forms of messages” and “may include a SMS and/or SVMS message, multimedia content, including” for example, voice messages “and so forth.” *Id.* ¶21; *see also* Ex-1044, 3.

A POSITA would have understood that as an obvious design choice the message could be forwarded to a plurality of other (i.e., second) recipients simultaneously. Ex-1002 ¶148. For example, Still already teaches that the “sender may create a notice describing a content” and send it “to one *or more* recipients” and that the multimedia content may be streamed “on a subscription basis.” Ex-1008 ¶32. A POSITA would have understood that a system that streams content to subscribers would have been able to stream content simultaneously to a plurality of subscribers,

because group text messages were known by 2009, such that it would have been obvious to a POSITA that a message could be forwarded by one recipient to a plurality of other recipients simultaneously. Ex-1002 ¶¶148-150 (discussing examples such as RealPlayer); Ex-1030, 33-34, 47; Ex-1032; Ex-1038, 97; Ex-1040, 26, 41, 90. For example, a POSITA would have understood that a well-known way to forward a message to multiple recipients was to list the multiple recipient addresses or phone numbers in the message and then press “send” (or equivalent), which would result in the message being sent to all listed recipients simultaneously. Ex-1002 ¶¶151-152 (discussing examples such as email and broadcast voicemail); Ex-1028, 2; Ex-1039; Ex-1040, 31; Ex-1042, 1. A POSITA would have known how to implement this capability as a routine design choice to enable addressing multiple recipients at once. Ex-1002 ¶152. Doing so would require nothing more than routine software components, because the concept of sending a message to multiple recipients simultaneously was well-known, and Still uses general purpose computers, such that implementing this teaching within Still’s system would have been well within the skill of a POSITA. *Id.*

B. Grounds 3-4: Challenged claims are rendered obvious by Mumick’046 alone or Mumick’046-Levkovitz

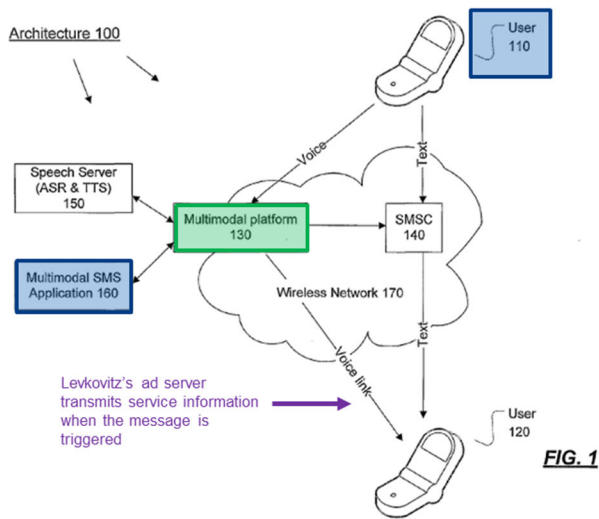
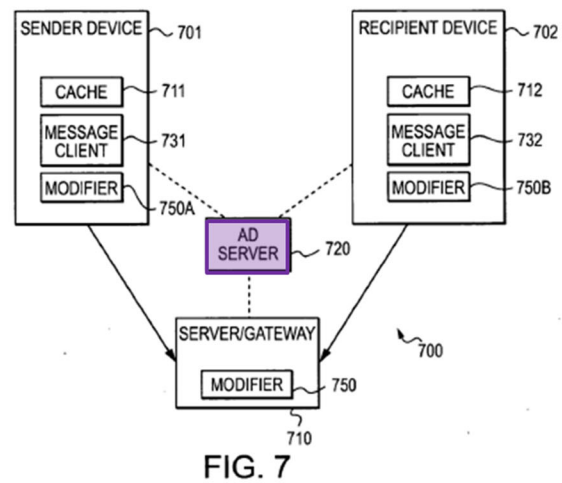
1. A POSITA would have been motivated to combine Mumick’046-Levkovitz and had a reasonable expectation of success

In addition to the reasons set forth below, a POSITA would have been motivated to combine the teachings of Mumick’046 and Levkovitz (“Mumick’046-Levkovitz”) and would have had a reasonable expectation of success in doing so. Ex-1002 ¶153. Each relates to methods for delivery of multimedia content using SMS messages that include a notification sent to a recipient that includes a pointer, which in turn links to the multimodal message stored on a server. Ex-1009 ¶¶170, 175; Ex-1010, Abstract, ¶27. The user in Mumick’046’s system creates a voice recording using a server and the voice recording is stored on the server. Ex-1010 ¶24. A text message is transmitted to the recipient, “notifying them that a voice message has been recorded and providing a link,” “which can be activated to listen to the message.” Ex-1010 ¶24. Mumick’046’s recipient may reply to the voice message by SMS. Ex-1010 ¶55. Levkovitz has similar disclosures, as discussed in Section XII.A.1. *See, e.g.*, Ex-1009 ¶¶170, 175, 240, 269. Moreover, Levkovitz states that its messages may include a SMS message, a MMS message, an IM message, and an Email message. Ex-1009 ¶39. Additionally, the advertisement content embedded into a SMS or MMS or IM or Email may include a “textual message, audio clip, video clip, image or the like.” *Id.* ¶171; *see also id.* ¶265

(“Presented content items may include, for example, textual content items, animated content items, visual or graphical content items, images, photos, video content, sound or audio content, or a combination thereof.”). These are the same types of messages and mediums disclosed by Mumick’046’s system. Ex-1002 ¶154.

A POSITA would have been motivated to implement Levkovitz’s teachings of embedding advertisements in an incoming message (and enabling recipient interaction with the same) using Levkovitz’s ad server (Fig. 7 (purple)) with Mumick’046’s system (Fig. 1 (purple)). Ex-1002 ¶155. Given that Mumick’046 already describes interactive message based services,¹² a POSITA would have looked to Levkovitz as a specific example of an interactive service to combine with Mumick’046. Ex-1002 ¶155. Levkovitz discloses that “text analysis” of text messages can be used “to selectively target advertisements to” the user such that if they receive or send a text message having the keyword “football” then “the system may modify” the text message “by selectively inserting or adding an advertisement related to that keyword.” Ex-1009 ¶222. Thus, a POSITA would have known that implementing Levkovitz’s teachings with Mumick’046’s system would result in a more customizable and targeted advertising and messages. Ex-1002 ¶155.

¹² Mumick’046 describes how SMS can be used to inter-work with instant messaging so that “[i]f an IM is sent to a mobile device, it is delivered as a SMS” and the recipient “then responds with SMS.” Ex-1010 ¶60.



A POSITA would have been motivated to combine Mumick'046-Levkovitz because they would have recognized a benefit of implementing Levkovitz's teachings of embedding advertisements in an incoming message and providing user-selectable operations with a system like Mumick'046 to provide users customized advertisements based on their content request and allow them to control what advertisements they interact with. Ex-1002 ¶156. A POSITA would also have recognized a benefit in defraying costs of the messaging service, as Levkovitz discloses (Ex-1009 ¶170), and would have been motivated to combine Levkovitz with Mumick'046 to achieve those benefits. Ex-1002 ¶156.

A POSITA would also have had a reasonable expectation of success in implementing the combined teachings of Mumick'046-Levkovitz. Ex-1002 ¶157. Mumick'046 and Levkovitz both disclose methods for enabling recipient interaction through the delivery of multimodal messages using familiar elements such as mobile

devices, SMS messaging, and servers that a POSITA would have understood are amenable to various well-understood and predictable combinations, as explained in further detail below. *Id.*; Ex-1009 ¶170; Ex-1010, ¶27; Ex-1030; Ex-1033; Ex-1040.

2. Claim 1

- a. **Element 1[pre]: A method of enabling a recipient to interact with an interactive multimodal message triggered on a mobile device of said recipient, comprising the steps of:**

Mumick'046 alone or Mumick'046-Levkovitz teaches Claim 1's preamble to the extent it is limiting. Ex-1002 ¶158. Mumick'046 teaches an interactive multimodal message triggered on a recipient's mobile device. *Id.* Specifically, Mumick'046 states that the user "creates a voice message by directly calling the multimodal platform" or "replying to a previous multimodal SMS or text SMS[]" and following prompts "to create a voice recording." Ex-1010 ¶24. After the voice "recording is completed and stored" at the multimodal platform, a text message is transmitted to the recipient, "notifying them that a voice message has been recorded and providing a link," "which can be activated to listen to the message." *Id.* Moreover, Mumick'046 discloses sending and receiving MMS messages that include "text, voice, and image." Ex-1010 ¶59; *see also id.* ¶¶57-58, 9 (disclosing a "multimodal SMS mechanism combining speech," image or video data "with standard text SMS"). Mumick'046 additionally teaches "user input and/or output devices including those capable of pickup and playback of speech and those capable

of entering and displaying text information.” Ex-1010 ¶26. A POSITA would have understood that Mumick’046’s messages with multimedia content are interactive multimodal messages because they comprise a seamless combination of graphics, text, and audio output or a combination of the same with speech, text, and touch input. Ex-1002 ¶159.

Mumick’046 also teaches a method of enabling a recipient to interact with the triggered interactive multimodal message. Ex-1002 ¶160. Specifically, Mumick’046 discloses that the recipient may “reply to a voice mail by SMS.”¹³ Ex-1010 ¶55.

b. Element 1[a]: creating said interactive multimodal message by a sender using a client application available to said sender, wherein said created interactive multimodal message is stored at a server;

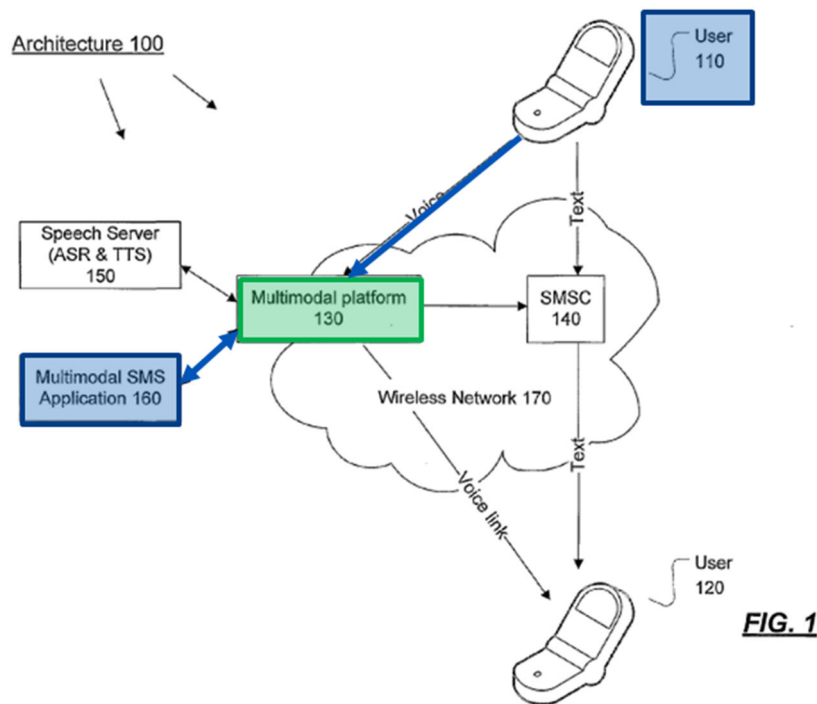
Mumick’046 alone or Mumick’946-Levkovitz teaches Element 1[a]. Ex-1002 ¶161.

(Ground 3) Mumick’046 teaches creating an interactive multimodal message (i.e., text and multimedia content). Ex-1010 ¶¶16 (“[A] multimodal SMS is created by a user device, transmitted through the network, and received by a second user device.”), 58 (The multimodal platform 130 constructs a MMS message ... by combining any text portion, or other media material, into a single MMS construct

¹³ This is how the ’949 Patent presents the interaction. *See* Ex-1001, 5:34-39 (examples of recipient “interaction” include the recipient “replying to the interactive multimodal message”).

which is then sent to the desired recipient.”), 59 (describing sending and receiving MMS messages that include “text, voice, and image”).

Mumick’046 teaches creating the interactive multimodal message “using a client application available to said sender.” Ex-1002 ¶162. First, the sender’s “text input device is used to compose a message to be sent using standard SMS technology.” Ex-1010 ¶27, Fig. 1 (blue). The user “creates a voice message” by calling the multimodal platform directly from their device or replying to a previous multimodal or text SMS and following prompts “to create a voice recording.” Ex-1010 ¶24; *see also id.* ¶37 (the user can “click[] on the phone number ... to retrieve the voice message” and while retrieving it, can “reply by voice, thereby continuing an exchange of voice messages”). In particular, Mumick’046’s multimodal SMS application 160 (blue) combines the user’s text message with “a link” to the recorded voice message utilizing “a message identifier,” which is transmitted to the recipient. Ex-1010 ¶27. A POSITA would have understood that Mumick’046’s text input device, which in turn, accesses the underlying functionality and software of the multimodal SMS application via a voice connection (or clicking a link) is a client application because it is a program present on or accessible by the sender’s mobile device that is used by a sender to create a message, such as an SMS messaging application with voice connection capabilities. Ex-1002 ¶163.



A POSITA would have understood that the client application communicates with the network server-based multimodal SMS application that accesses other network components. Ex-1002 ¶¶164-166; *see* Ex-1010, Fig. 1 (multimodal SMS application is an application connected to other network components such as speech server 150 for recording voice messages, multimodal platform 130 for storing all messages, and SMSC 140 for transmitting messages via wireless network 170); Ex-1025, 91. A POSITA would have recognized that a portion of the application necessary to create the interactive multimodal message—combining the user’s text message with a link to a recorded voice message using a message identifier and notifying the recipient—resides on the multimodal SMS application and is “available to said sender,” as Claim 1 recites. Ex-1002 ¶167.

In sum, Mumick’046 teaches “using a client application available to said sender,” that includes a client application on the sender’s device for composing a new text message and communicating with an available network-based multimodal SMS application, to add voice content, combine the user’s text message with a link to a voice message, and notify the recipient. Ex-1002 ¶¶168-169.

Although unnecessary in view of the construction of “client application available to said sender” discussed above (*see* Section X.C), a POSITA would also have understood that the details of which application components are put on the client, versus put on the server and accessed by the client, would have been a matter of routine design choice to a POSITA. Ex-1002 ¶¶170-171. As an example, a client application entirely on the sender’s device could do all the creating of the interactive multimodal message. *Id.* It could access content locally on the sender device—such as photographs or audio recordings—and assign message identifiers itself, and then communicate the entire interactive multimodal message to the multimodal SMS application, which would then forward it to recipients using standard protocols. *Id.*; *see, e.g.*, Ex-1010 ¶25 (“It should be noted that the link embedded in an SMS message can be created at the receiving device.”).

Finally, as claim limitation 1[a] requires, Mumick’046 also “teaches wherein said created interactive multimodal message is stored at a server.” Ex-1010 ¶11. Mumick’046 specifically states that “an automatic and unique identification of each

message is *stored at the multimodal platform.*” *Id.*; see also *id.* ¶24 (“the recording is completed and stored at the multimodal platform 130”).

(Ground 4) Levkovitz teaches creating an interactive multimodal message by a sender using a client application available on the sender’s mobile device for the same reasons discussed in Ground 2 (*see* Section XII.A.2.b). *See, e.g.,* Ex-1009 ¶¶240 (message client is an SMS application that composes outgoing messages and sends them to recipients), 241 (message client is installed on sender’s mobile device), Fig. 7; Ex-1002 ¶172.

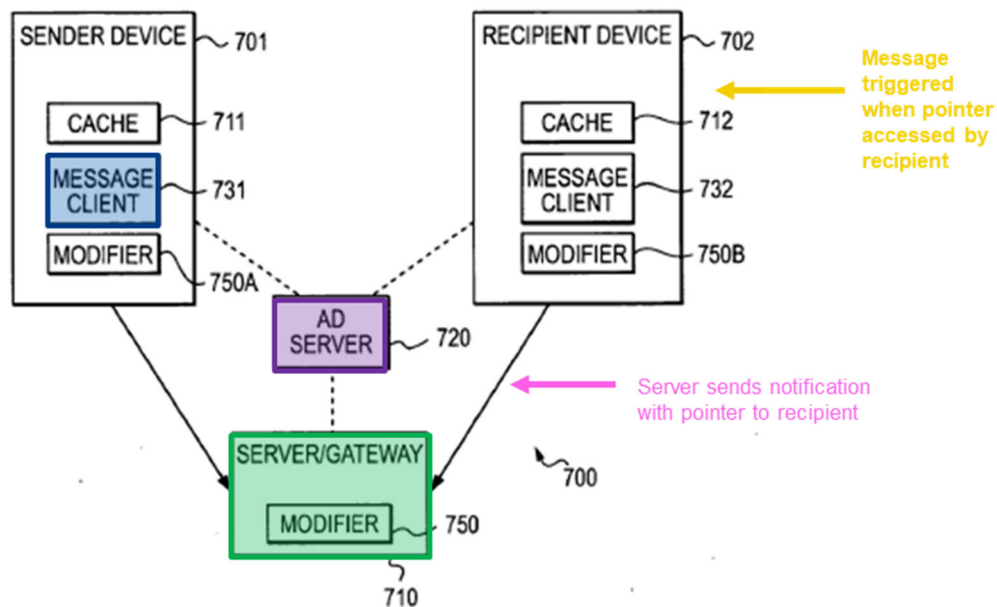


FIG. 7

A POSITA would have been motivated to implement Levkovitz’s teachings of a client application located at the mobile device (instead of partly on a server accessible by the mobile device’s application) with Mumick046’s system. Ex-1002

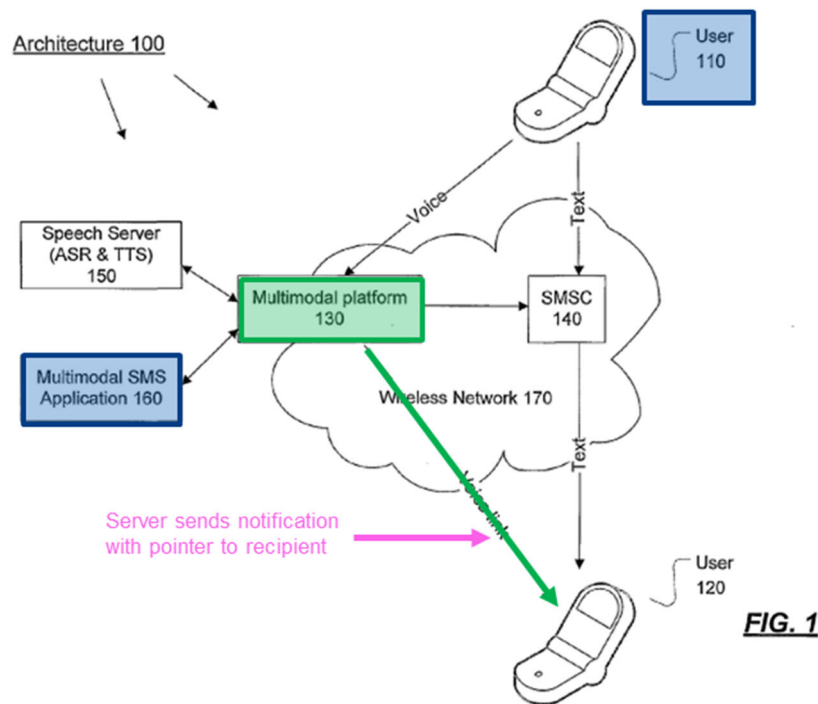
¶173. One motivation for doing so would be to have more functionality on the client mobile device such as the ability for a user to create messages in areas of limited connectivity. *Id.* Levkovitz’s client application allows “the user to selectively browse and/or view ... one or more content items that are stored” in a content repository using a browser on the device. Ex-1009 ¶262. The browser operates when the device “is online and/or ... offline,” which “allows the user to selectively browse and/or view stored content items without dependence on the operational status or location” of the device. *Id.* A POSITA would have recognized the importance of this benefit to users and been motivated to implement this functionality with Mumick’046’s system. Ex-1002 ¶¶173-175. The Mumick’046-Levkovitz combination would improve the user’s experience and save the user time. *Id.*; Ex-1045, 75.

A POSITA would have had a reasonable expectation of success in combining Mumick’046-Levkovitz because both client and server are general purpose computing systems and each have the capacity to run software applications. Ex-1002 ¶176. As such, it would be well within the skill of a POSITA to implement the functionality of a client application on any of the devices of Mumick’046 or Levkovitz. *Id.*; Ex-1030; Ex-1033; Ex-1040.

- c. Element 1[b]: sending a notification comprising a pointer to said stored interactive multimodal message to said mobile device of the recipient by said server;**

Mumick’046 alone or Mumick’046-Levkovitz teaches Element 1[b]. Ex-1002 ¶177.

(Ground 3) Mumick’046 teaches sending a notification comprising a pointer to the stored interactive multimodal message to the recipient’s mobile device by the server. Ex-1010 ¶24. Specifically, Mumick’046 teaches that after the user’s voice “recording is completed and stored” at the multimodal platform (green), a text message is transmitted to the recipient, “notifying them that a voice message has been recorded and providing a link” to the stored voice message (pink), “which can be activated to listen to the message.” *Id.* In particular, Mumick’046’s multimodal SMS application 160 (blue) combines the user’s text message with “a link” to the recorded voice message utilizing “a message identifier” such that the user can retrieve the stored voice message “through the message identifier.” Ex-1010 ¶27; *see also id.* ¶11 (essential “links are inserted” into the user’s text messages, that allow for retrieval of the message from the platform); Ex-1002 ¶178.



A POSITA would have understood that Mumick’046’s “link” and/or “message identifier” are pointers because they are links that automatically direct the recipient to the interactive message. Ex-1002 ¶¶179-181; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.¹⁴ As such, Mumick’046’s “message identifier” and “link,” which can be activated to listen to the stored message are pointers because they are used by the recipient to access the stored message. Ex-1002 ¶179; Ex-1010 ¶¶24, 27.

(Ground 4) Levkovitz also teaches sending a notification comprising a pointer to the stored interactive multimodal message to the recipient for the same reasons discussed in Ground 2 (*see* Section XII.A.2.c). *See, e.g.*, Ex-1009 ¶¶175 (a message

¹⁴ A POSITA would have understood that a “link” as used in the ’949 Patent is a mechanism to connect or “link” a user to the interactive message, including, e.g., a “text link.” Ex-1001, 4:16-18.

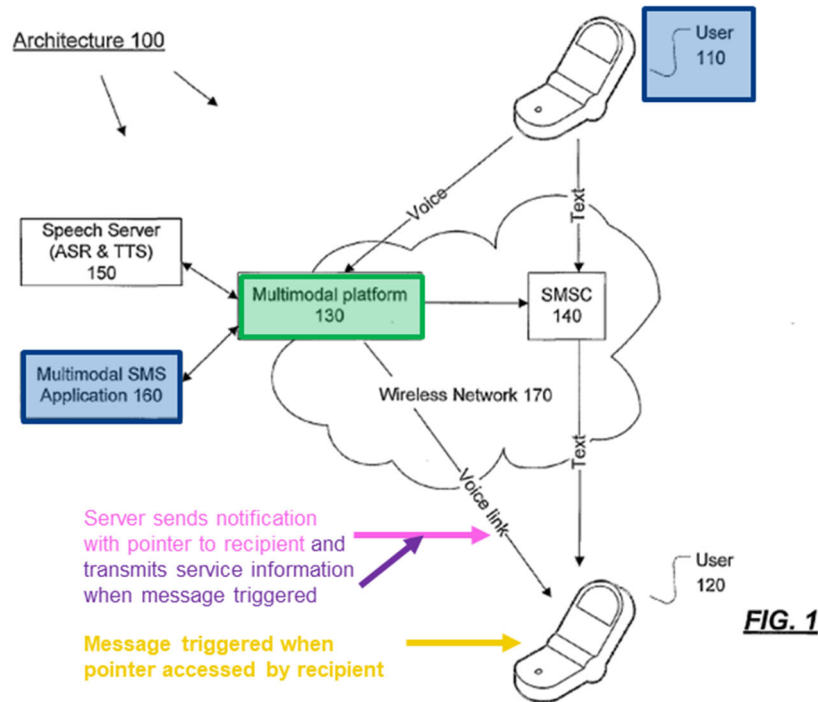
is sent “having a link or a shortcut which may trigger a content request by” the recipient’s device), 269 (recipient can select to virtually visit, browse, or redirect to “a certain website (e.g., through a [URL] or other shortcut or pointer, which may be pre-provided with the content item”). A POSITA thus would have recognized that Levkovitz specifies additional details and features (such as to “press or click” a link) that could be incorporated into the pointer/link taught by Mumick’046, and incorporated these features with Mumick’046’s system—to the extent additional specific capabilities were necessary—with a reasonable expectation of success. Ex-1002 ¶¶182-183.

d. Element 1[c]: triggering the stored interactive multimodal message on the mobile device of the recipient by accessing said pointer in said notification; and

Mumick’046 alone or Mumick’046-Levkovitz teaches Element 1[c]. Ex-1002 ¶184.

(Ground 3) Mumick’046 teaches triggering the server-stored interactive multimodal message on the recipient’s mobile device by accessing the pointer to the stored voice message (pink), “which can be activated to listen to the message” (yellow). Ex-1010 ¶24, Fig. 1 (annotated). In particular, the user can retrieve the stored voice message “through the message identifier.” Ex-1010 ¶27. For example, the user can “simply activate (‘click’) the link to access their message.” Ex-1010

¶35; *see also id.* ¶55 (“The user receives the message and clicks on the multimodal SMS link to hear the [voicemail].”); Ex-1002 ¶¶185-186.



A POSITA would have understood that the recipient accessing the pointer (i.e., link and/or message identifier) in the notification by clicking it “triggers the stored interactive multimodal message” because it allows the recipient to retrieve the message from the multimodal platform. Ex-1010 ¶11; Ex-1002 ¶¶187-189; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

(Ground 4) Levkovitz teaches this limitation for the same reasons discussed in Ground 2 (*see* Section XII.A.2.d). *See, e.g.*, Ex-1009 ¶¶175 (components of the system “trigger” the recipient’s device “to transmit a content request” by sending a message “having a link or a shortcut”), 269 (recipient can select to virtually visit,

browse, or redirect to “a certain website (e.g., through a [URL] or other shortcut or pointer, which may be pre-provided with the content item)”). A POSITA thus would have recognized that Levkovitz specifies additional details and features (such as to “press or click” a link) that could be incorporated into the pointer/link taught by Mumick’046, and would have incorporated these features with Mumick’046’s system—to the extent additional capabilities were necessary—with a reasonable expectation of success. Ex-1002 ¶¶190-192.

e. Element 1[d]: transmitting service information to the mobile device of the recipient through said triggered interactive multimodal message;

Mumick’046 alone or Mumick’046-Levkovitz teaches Element 1[d]. Ex-1002 ¶193.

(Ground 3) Mumick’046 teaches transmitting service information to the mobile device of the recipient through the triggered interactive multimodal message, because the text message transmitted to the recipient “may also contain additional content provided by the sender.” Ex-1010 ¶24. Specifically, Mumick’046 states that “additional information (other than the message and identifier)” can be included in “the body of the multimodal SMS message,” such as “information helpful in identifying the message (e.g. the first few words of the original text message).” Ex-1010 ¶63. A POSITA would have understood that service-related content information encompasses “information helpful in identifying the message” to the

recipient such as “the first few words” of the message. Ex-1002 ¶194. This is consistent with the ’949 Patent, which states that “transmitted service information may, for example, comprise advertisements, alerts, or *service content previews provided by the sender*.” Ex-1001, 4:38-40; Ex-1002 ¶194.

(Ground 4) Levkovitz also teaches transmitting service information to the mobile device of the recipient through the triggered interactive multimodal message for the same reasons discussed in Ground 2 (*see* Section XII.A.2.e). *See, e.g.*, Ex-1009 ¶¶301 (the recipient “may select to view the incoming SMS message”), 302 (the message “may be presented” along with “a content item embedded within (e.g., an advertisement)”) Ex-1002 ¶¶195-198; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

A POSITA would have been motivated to implement Levkovitz’s teachings of embedding advertisements in an incoming message with Mumick’046’s system to provide users customized advertisements based on their content request and allow them to control what advertisements they interact with and would have had a reasonable expectation of success in doing so for the reasons explained in Section XII.B.1. Ex-1002 ¶¶199-200; Ex-1030; Ex-1033; Ex-1040.

f. Element 1[e]: whereby the interactive multimodal message triggered on the mobile device enables said recipient interaction.

Mumick’046 alone or Mumick’046-Levkovitz teaches Element 1[e]. Ex-1002 ¶201.

Mumick'046 teaches that the triggered interactive multimodal message enables recipient interaction. Ex-1010 ¶37. Specifically, when “retrieving the voice message” from the multimodal platform, the recipient may “reply by voice, thereby continuing an exchange of voice messages.” *Id.* Moreover, a recipient may “reply to a voice mail by SMS.” Ex-1010 ¶55. For example, a menu may be presented to the recipient when they listen to a voicemail, which allows them “to record a message” that is then sent to the original user that sent a voicemail “as a multimodal SMS message.” *Id.* Therefore, the recipient in Mumick'046 interacts with the triggered interactive multimodal message in the same manner as the '949 Patent, which discloses that “interaction” may include “replying to the interactive multimodal message.” Ex-1001, 5:33-39; Ex-1002 ¶¶202-203.

3. Claim 2: The method of claim 1, wherein the recipient triggers the interactive multimodal message using on[e] or more of dual-tone multi frequency dialogs, prompts in voice extensible markup language, automated speech recognition, and a hypertext transfer protocol post.

Mumick'046 alone or Mumick'046-Levkovitz teaches Claim 2. Ex-1002 ¶204.

(Ground 3) Mumick'046 teaches that the recipient triggers the interactive multimodal message using at least dual-tone multi frequency (DTMF) dialogs. Ex-1002 ¶205. For example, Mumick'046 teaches that a recipient may activate the link included in the notification to access the stored voice message by clicking on

the link. Ex-1010 ¶35. Moreover, the message identifier associated with the stored voice message “can be added automatically to a text SMS message” that is sent to the recipient and the recipient can use their device to “dial[] a number within such an SMS message” to “retrieve the voice message.” Ex-1010 ¶38; *see also id.* ¶33 (a user can use “manual entry (by voice or through a touch-pad or keyboard)”). A POSITA would have understood that triggering the content by clicking on a link or dialing a number manually on a telephonic keypad (as opposed to full alphanumeric) would have used DTMF tones (i.e., touch tones) to access the content, in the same way that voicemail can be accessed. Ex-1002 ¶¶206-208; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

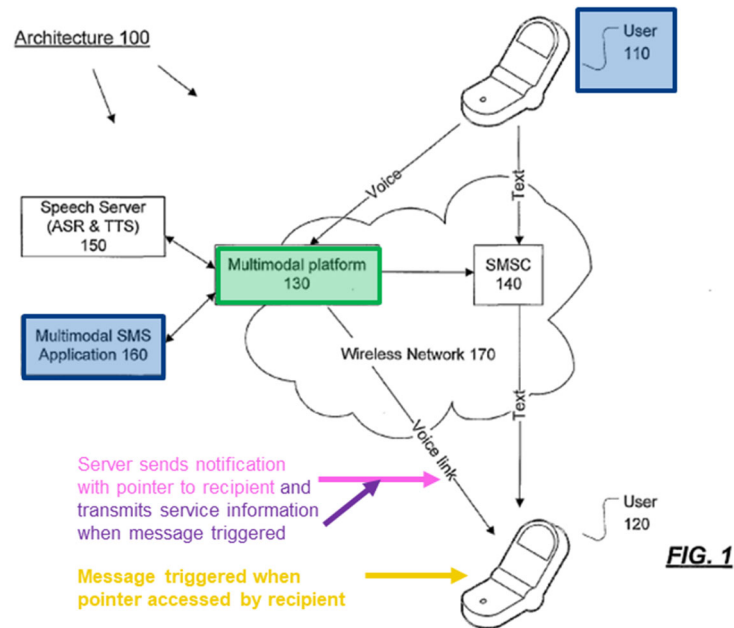
(Ground 4) To the extent that a POSITA would have desired additional implementation details, this claim is also taught by Levkovitz. Ex-1009 ¶167. Specifically, Levkovitz teaches that the user’s device 170 “may communicate with communicator 150 and/or ad server 110” (which store the content to be transmitted to the recipient) “using server communicator 177,” which “may utilize HyperText Transfer Protocol (HTTP) or a HTTP library to communicate with communicator 150 and/or ad server 110.” *Id.* A POSITA would have recognized that triggering the content at the server using HTTP would constitute an “HTTP” request such as a POST or GET request. Ex-1002 ¶209.

A POSITA would have been motivated to combine Mumick’046-Levkovitz and had a reasonable expectation of success in doing so, for the reasons discussed in Section XII.B.1. Ex-1002 ¶210.

4. Claim 4: The method of claim 1, wherein the interactive multimodal message is triggered on activating a link in a text message on the mobile device by the recipient.

Mumick’046 alone or Mumick’046-Levkovitz teaches Claim 4. Ex-1002 ¶211.

(Ground 3) Mumick’046 teaches triggering the interactive multimodal message by activating a link in a text message on the recipient’s mobile device. Ex-1002 ¶212. Its system “advantageously” provides “automatic procedures” such that the user can “simply activate (‘click’) the link to access their message.” Ex-1010 ¶35; *see also id.* ¶55 (“The user receives the message and clicks on the multimodal SMS link to hear the VM.”); Ex-1002 ¶¶213-215; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.



(Ground 4) This claim is also taught by Levkovitz for the same reasons discussed in Ground 2 (*see* Section XII.A.4). *See, e.g.,* Ex-1009 ¶¶175 (components of the system “trigger” the recipient’s device “to transmit a content request” by sending a message “having a link or a shortcut”), 39 (“message” includes SMS messages), 269 (recipient can select to virtually visit, browse, or redirect to “a certain website (e.g., through a [URL] or other shortcut or pointer, which may be pre-provided with the content item)”). A POSITA thus would have recognized that Levkovitz specifies additional details and features (such as to “press or click” a link) that could be incorporated into the pointer/link taught by Mumick’046 and would have incorporated these features with Mumick’046’s system—to the extent additional capabilities were necessary—with a reasonable expectation of success. Ex-1002 ¶¶216-218.

- 5. Claim 5: The method of claim 1, wherein said transmitted service information provides the recipient with one or more options, wherein the recipient selects one of said provided options.**

Mumick'046 alone or Mumick'046-Levkovitz teaches Claim 5. Ex-1002 ¶219. Mumick'046 alone or Mumick'046-Levkovitz teaches transmitted service information (*see* Section XII.B.2.e). *See, e.g.*, Ex-1010 ¶63; Ex-1009 ¶302.

(Ground 3) Mumick'046 further teaches that the transmitted service information provides the recipient with one or more options, wherein the recipient selects one of the provided options. Ex-1010 ¶55. Specifically, Mumick'046 states that its system “provides the ability to reply to a voice mail by SMS.” *Id.* For example, a menu may be presented to the recipient when they listen to a voicemail, which allows them “to record a message” that may then be sent to the original user that sent a voicemail “as a multimodal SMS message.” *Id.* A POSITA would have found it obvious that the SMS message sent to the user in the voicemail example that also provides a menu to the user to select an option to record a reply message could include “information helpful in identifying the message (e.g. the first few words of the original text message)” (i.e., transmitted service information). Ex-1002 ¶220. The motivation for including a content preview with a voicemail message, similar to the motivation disclosed by Mumick'046 for SMS messages, would be to allow

the system “to distinguish various multimodal SMS messages received by a user.”
Id.; Ex-1010 ¶63.

(Ground 4) This claim is also taught by Levkovitz for the same reasons discussed in Ground 2 (*see* Section XII.A.5). *See, e.g.*, Ex-1009, Abstract (the recipient’s mobile device includes a display unit for displaying “user-selectable operations” that are “selectively associated with an advertisement embedded within an incoming message”), ¶¶67 (selectable options related to an advertisement include “storing a coupon included in the advertisement”), 303 (“show a special offer related to the advertisement, show a map of a location related to the advertisement, call a store or cinema or another destination related to the advertisement, buy tickets or goods related to the advertisement, or the like”), Fig. 13; Ex-1002 ¶¶221-223.

A POSITA would have been motivated to implement Levkovitz’s teachings of embedding advertisements in an incoming message and providing user-selectable operations that enable the recipient to interact with the advertisements (e.g., to store a coupon or buy tickets or goods relating to an advertisement) with Mumick’046’s system to enable such features and had a reasonable expectation of success in doing so for the reasons explained in Section XII.B.1. Ex-1002 ¶¶224-227; Ex-1030, 27; Ex-1041; Ex-1043 ¶29.

6. Claim 9: The method of claim 1, further comprising the step of forwarding the interactive multimodal message to a plurality of second recipients simultaneously.

Mumick’046 alone or Mumick’046-Levkovitz teaches Claim 9. Ex-1002 ¶228.

(Ground 3) Mumick’046 teaches sending the interactive multimodal message to a plurality of second recipients simultaneously. Ex-1002 ¶229. Specifically, Mumick’046 teaches that multimodal SMS messages may “be sent to a group or a mailing list as desired,” which is “stored in the network ... or the user device or any combination of the two.” Ex-1010 ¶53. Moreover, Mumick’046 states that when the provided address is received by the multimodal platform, it is “used to send the multimodal SMS message to the desired recipient (or list of recipients).” Ex-1010 ¶62. A POSITA would have understood that Mumick’046’s ability to send multimodal SMS messages to a list of recipients meets this claim because forwarding is an obvious extension of initial addressing. Ex-1002 ¶¶230-231 (discussing well-known forwarding functionality of email and voicemail systems); Ex-1028, 2; Ex-1030, 33, 47; Ex-1038, 97; Ex-1040, 26, 41, 90; Ex-1042, 1. Specifically, a POSITA would have understood that sending a message to multiple recipient addresses or phone numbers would result in the message being sent to all listed recipients simultaneously. Ex-1002 ¶230. A POSITA would have known how to implement this capability as a routine design choice to enable addressing multiple recipients at

once. Ex-1002 ¶231. Doing so would require nothing more than routine software components because the concept of sending a message to multiple recipients simultaneously was well-known, and Mumick’046 uses general purpose computers, such that implementing this teaching within Mumick’046’s system would have been well within the skill of a POSITA. *Id.*

(Ground 4) To the extent that a POSITA would have desired additional implementation details, Levkovitz teaches forwarding an interactive multimodal message to a plurality of second recipients simultaneously. Ex-1002 ¶232. Specifically, Levkovitz teaches that the user “may be presented with a set of operations” to choose from including to “forward the content item and/or the incoming message and/or a portion thereof (e.g., to another wireless communication device or to another recipient).” Ex-1009 ¶269. Moreover, Levkovitz teaches that its network handler communicates “in parallel with multiple devices.” Ex-1009 ¶138. Levkovitz also states that multiple ports are “included in communicator 150, to allow parallel or substantially simultaneous handling of multiple content requests.” Ex-1009 ¶140; *see also id.* ¶141 (“content requests ... may be processed ... in parallel or substantially simultaneously”). Group text messages were known by 2009 such that it would have been obvious to a POSITA that a message could be forwarded by one recipient to a plurality of other recipients simultaneously. Ex-1002 ¶233. For example, a POSITA would have understood that a well-known way to forward a

message to multiple recipients was to list the multiple recipient addresses or phone numbers in the message and then press “send” (or equivalent), which would result in the message being sent to all listed recipients simultaneously. *Id.* A POSITA would have known how to implement this capability as a routine design choice to enable addressing multiple recipients at once. Ex-1002 ¶¶234-237. Doing so would require nothing more than routine software components because the concept of sending a message to multiple recipients simultaneously was well-known, and Levkovitz uses general purpose computers, such that implementing this teaching within Levkovitz’s system would have been well within the skill of a POSITA. *Id.*; Ex-1032; Ex-1030, 34; Ex-1039; Ex-1040, 31.

A POSITA would have been motivated to combine Mumick’046-Levkovitz and had a reasonable expectation of success in doing so, for the reasons discussed in Section XII.B.1. Ex-1002 ¶¶238-241; Ex-1030; Ex-1033; Ex-1040.

XIII. THE BOARD SHOULD NOT USE ITS DISCRETION TO DENY INSTITUTION UNDER *FINTIV*

The Board should decline any request by PO to exercise discretion to deny institution under 35 U.S.C. §314(a). While Director Vidal’s June 21, 2022 Guidance made clear that “*Fintiv* is limited to facts of that case,” for completeness, Petitioner addresses the factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11

(PTAB Mar. 20, 2020) (precedential). As explained below, the six factors set out in *Fintiv* do not justify denying institution.

As an initial matter, there is no litigation currently pending against Co-petitioner Google. The '949 Patent is asserted against Co-petitioner Samsung but not Co-petitioner Google. It is also asserted against non-party TCL in the *TCL* litigation, which is currently stayed. Accordingly, none of the *Fintiv* factors that depend on actions or activities of a petitioner in a co-pending litigation apply in any respect to Google. When each of these factors is weighed against Co-petitioner Google, they strongly weigh against denial. Accordingly, the Board should decline to exercise its discretion under 35 U.S.C. §314(a).

The **first *Fintiv* factor** applied against Co-petitioner Samsung alone is neutral here because Samsung has not yet moved to stay the district court proceedings pending IPR. Samsung may seek to stay the proceedings at a later date, and Petitioner will seek leave to submit a Preliminary Reply to address any post-filing developments in this regard, as necessary. Regardless, the PTAB will not infer how the district court would rule should a stay be requested. *See, e.g., Hulu LLC v. SITO Mobile R&D IP, LLC et al.*, IPR2021-00298, Paper 11 at 10-11 (PTAB May 19, 2021). Additionally, the *TCL* litigation involving the '949 Patent *is* stayed pending service of TCL under the Hague Convention, which will likely occur around February 2024. Ex-1022. Accordingly, this factor is neutral as to the *Samsung*

litigation. And in view of the lengthy stay in the *TCL* litigation, this factor weighs against denial.

For the **second *Fintiv* factor** applied against Co-petitioner Samsung alone, the district court has set a date to begin jury selection of October 28, 2024, approximately a year in the future. Even assuming that this date set about a year in the future holds, its timing does not tip in favor of denying the petition in this case. *See, e.g., Apple Inc. v. Koss Corp.*, IPR2021-00305, Paper 14 at 13 (PTAB June 3, 2021). Further, Samsung filed a Rule 12(c) motion for judgment on the pleadings under 35 U.S.C. §101 on September 20, 2023 (*Samsung Electronics Co., Ltd. et al.*, 2:22-cv-00462, D.I. 42 (E.D. Tex. Sept. 20, 2023)) and a motion to transfer on October 13, 2023 (*id.* at D.I. 46 (Oct. 13, 2023) (filed under seal)). The estimated trial date may therefore get extended, if the case is not dismissed entirely. Petitioner will notify the Board of any Court orders regarding the motion for judgment and motion to transfer, and expects to request a preliminary reply to address *Fintiv* based on subsequent developments. In addition, given the pending stay in the *TCL* litigation, the timing of trial with respect to *TCL* cannot be predicted at this time but is likely to occur after a final decision here. As such, the *Samsung* trial date weighs against denial.

The **third *Fintiv* factor** applied against Co-petitioner Samsung alone, weighs strongly against denial. There has been very little activity in the case. Claim

construction briefing has not yet begun. No depositions have yet been taken and expert discovery has not begun. There have been no substantive orders in the case, and the most cost intensive period in the district court case will likely occur around or after the institution decision. This alone weighs against denial. *See, e.g., Hulu*, Paper 11 at 13 (“We agree with Petitioner that the district court proceeding remains at the early stages, and a significant portion of work still remains to be done in the district court proceeding.”); *Skechers U.S.A., Inc. v. Nike, Inc.*, IPR2021-00160, Paper 10 at 12-13 (PTAB May 19, 2021) (“[N]either party has informed us that the District Court has undertaken a Markman hearing or entered a claim construction order. ... [T]his factor weighs against exercising our discretion.”). Moreover, there have been no development in the *TCL* litigation, which is stayed. This factor thus weighs against denial.

The **fourth *Fintiv* factor** also weighs against denial. The *Samsung* litigation is in the early stages and the *TCL* litigation is in its infancy and stayed. Co-petitioner Google is not a party to either litigation, so this IPR is thus the only forum in which Google can present its invalidity challenge. This factor thus weighs against denial.

On the **fifth *Fintiv* factor**, the Board should give little weight to the fact that Co-petitioner Samsung and PO are the same parties as in one of the relevant district court proceedings. Here, Co-petitioner Google and the defendants (Samsung and non-party TCL) in the parallel litigations are not the same parties. Moreover,

Petitioner Samsung is not a party to the *TCL* litigation. And Co-petitioner Google is not a party to either litigation. Therefore, this factor weighs against discretionary denial.

This petition presents “compelling merits” under the **sixth *Fintiv* factor**, which further weigh against discretionary denial. Where the Board “determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fintiv*.” USPTO Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022). The merits of the Petition are especially compelling here. For example, two petition references, Still and/or Mumick’046, each alone render obvious all elements of the challenged claims. To the extent that Still or Mumick’046 do not teach a particular limitation, it would have been obvious to a POSITA to combine Still-Levkovitz and Mumick’046-Levkovitz to achieve those limitations.

Taken together, holistically, the *Fintiv/NHK* factors strongly weigh against denial.

XIV. CONCLUSION

For the reasons above, Petitioner requests institution of IPR for the challenged claims of the '949 Patent based on each of the grounds specified in this Petition.

Respectfully Submitted,

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Ben Haber (Reg. No. 67,129)

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner certifies that this petition includes 13,931 words, as measured by Microsoft Word, exclusive of the table of contents, mandatory notices under § 42.8, certificates of service, word count, and exhibits.

CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e)(1))

The undersigned hereby certifies that the above document was served on December 5, 2023, by filing this document through the Patent Trial and Appeal Board P-TACTS System, as well as delivering a copy via express mail upon the following attorneys of record for the Patent Owner and Petitioner:

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