IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

MULTIMODAL MEDIA LLC,	)	Case No. 2:22-cv-00462-JRG-RSP
Plaintiff,	)	**JURY TRIAL DEMANDED**
v.	)	
SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC.,	)	
Defendants.	)	

PLAINTIFF'S DISCLOSURES OF ASSERTED CLAIMS
AND INFRINGEMENT CONTENTIONS

Plaintiff Multimodal Media LLC ("Multimodal" or "Plaintiff") hereby makes the following infringement disclosures under the Patent Local Rules with respect to United States Patent Nos. 7,929,949 ("'949 Patent"), 8,107,978 (the "'978 Patent"), 9,185,227 (the "'227 Patent"), and 10,552,030 (the "'030 Patent") (collectively, "Multimodal Patents" or "Asserted Patents"). Multimodal's investigation is ongoing, and discovery is in its preliminary stages. Accordingly, these disclosures are based on information available to Multimodal at this time. Multimodal reserves the right to supplement this disclosure after further discovery from Defendants and non-parties, particularly documents and other discovery regarding Defendants' Accused Products. Multimodal also reserves the right to assert additional claims of the Asserted Patents, accuse different products, or find alternative literal and/or equivalent infringing elements in Defendants' products.

I. DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS PURSUANT TO LOCAL PATENT RULE 3-1

A. ASSERTED CLAIMS

1. Accused Products

Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Samsung" or "Defendants") have infringed and/or continues to infringe one or more of the following claims of the Multimodal Patents in connection with the Accused Products set forth below:

- Claims 1, 2, 4, 5, and 9 of the '949 Patent;
- Claims 10-14 of the '978 Patent;
- Claims 1-3, 5, 8-13, 15, and 17-19 of the '227 Patent;
- Claims 1, 2, 6-9, 13, and 14 of the '030 Patent.

Multimodal reserves the right to seek leave of the court to add, delete, substitute, or otherwise amend this list of asserted claims should further discovery, the Court's claim construction, or other circumstances so merit.

B. ACCUSED INSTRUMENTALITIES

1. Accused Products

(a) '949, '978, '227, and '030 Patents

Multimodal is currently aware that all Samsung products comprising Android OS based mobile phones and tablets, including the Galaxy S21 Ultra 5G, Galaxy S10, Galaxy S10+, Galaxy A50, Galaxy A51, Galaxy S9, Galaxy Note10+, Galaxy Note9, Galaxy S10e, Galaxy S9+, Galaxy Note10, Galaxy A71, Galaxy A20, Galaxy A10, Galaxy A30, Galaxy A70, Galaxy S10 5G, Galaxy A7 (2018), Galaxy A30s, Galaxy A10s, Galaxy A20s, Galaxy A50s, Galaxy J6, Galaxy A01, Galaxy A80, Galaxy M20, Galaxy A40, Galaxy M30s, Galaxy A6 (2018), Galaxy M30, Galaxy

Note10+ 5G, Galaxy A90 5G, Galaxy Note10 5G, Galaxy A20e, Galaxy M40, Galaxy A10e, Galaxy Fold, Galaxy A70s, Galaxy A60, Galaxy M10s, Galaxy Fold 5G, Galaxy Xcover 4s, Galaxy S20 FE 5G, Galaxy A12, Galaxy S20, Galaxy Note20 Ultra 5G, Galaxy S20 Ultra 5G, Galaxy A21s, Galaxy A31, Galaxy Note20, Galaxy S20+, Galaxy A11, Galaxy M31, Galaxy S20 FE, Galaxy S20 5G, Galaxy Z Fold2 5G, Galaxy M51, Galaxy M21, Galaxy A02s, Galaxy S20 Ultra, Galaxy S20+ 5G, Galaxy Note10 Lite, Galaxy M11, Galaxy Note20 Ultra, Galaxy A21, Galaxy S10 Lite, Galaxy A42 5G, Galaxy Z Flip, Galaxy M31s, Galaxy Note20 5G, Galaxy A01 Core, Galaxy A51 5G, Galaxy A71 5G, Galaxy M01, Galaxy A41, Galaxy F41, Galaxy M01 Core, Galaxy Xcover Pro, Galaxy Z Flip 5G, Galaxy M01s, Galaxy A Quantum, Galaxy M21s, Galaxy A71 5G UW, Galaxy A51 5G UW, Galaxy S20 5G UW, Galaxy M31 Prime, Galaxy S21 5G, Galaxy A32, Galaxy A52, Galaxy A03, Galaxy A52s 5G, Galaxy A03s, Galaxy A03 Core, Galaxy A22, Galaxy S21+ 5G, Galaxy A72, Galaxy A22 5G, Galaxy A32 5G, Galaxy A13 5G, Galaxy M32, Galaxy M52 5G, Galaxy A02, Galaxy Z Flip3 5G, Galaxy A52 5G, Galaxy M12, Galaxy Z Fold3 5G, Galaxy F22, Galaxy F62, Galaxy M02, Galaxy M32 5G, Galaxy Xcover 5, Galaxy M62, Galaxy F12, Galaxy M02s, Galaxy M22, Galaxy A12 Nacho, Galaxy F42 5G, Galaxy M42 5G, Galaxy Quantum 2, Galaxy M21 2021, Galaxy F02s, Galaxy F52 5G, Galaxy A13, Galaxy S21 FE 5G, Galaxy S22 Ultra 5G, Galaxy A23, Galaxy A53 5G, Galaxy A73 5G, Galaxy S22 5G, Galaxy A04, Galaxy A33 5G, Galaxy A04s, Galaxy A23 5G, Galaxy A04e, Galaxy M33, Galaxy Z Fold4, Galaxy S22+ 5G, Galaxy Z Flip4, Galaxy F23, Galaxy F13, Galaxy M53, Galaxy M13, Galaxy M23, Galaxy M04, Galaxy Xcover6 Pro, Galaxy M13 5G, Galaxy A13 (SM-A137), Galaxy S20 FE 2022, Galaxy A54, Galaxy S23 Ultra, Galaxy A34, Galaxy A14, Galaxy S23, Galaxy A24 4G, Galaxy A14 5G, Galaxy S23+, Galaxy M14, Galaxy M54, Galaxy F14, Galaxy F04, Galaxy Tab A8 10.5 (2021), Galaxy Tab A7 Lite, Galaxy Tab S8, Galaxy Tab S6 Lite, Galaxy

Tab S7 FE, Galaxy Tab S8 Ultra, Galaxy Tab S6 Lite (2022), Galaxy Tab A7 10.4 (2020), Galaxy Tab S7, Galaxy Tab S8+, Galaxy Tab A 10.1 (2019), Galaxy Tab S9 Ultra, Galaxy Tab A 8.0 (2019), Galaxy Tab S6, Galaxy Tab S7+, Galaxy Tab S5e, Galaxy Tab A7 10.4 (2022), Galaxy Tab Active4 Pro, Galaxy Tab S4 10.5, Galaxy Tab Active3, Galaxy Tab A 8.0 & S Pen (2019), Galaxy Tab A 10.5, Galaxy Tab A 8.4 (2020), and the Galaxy Tab S6 5G, infringe at least one claim of the ’949, ’978, ’227, and ’030 patents.

2. Claim Charts

Claim charts identifying a location of every element of every asserted claim of the Multimodal Patents within the Accused Products are attached hereto as Appendices A-D. Multimodal believes that the Accused Products cited in the claim charts are representative of all versions of the Accused Products.

Multimodal reserves the right to amend these claim charts, as well as other information contained in this document and the Appendices attached hereto, to incorporate new information identified after these contentions were served or learned during the course of discovery including, but not limited to, information that is not publicly available or readily discernible without discovery. Multimodal further reserves the right to amend these claim charts, as well as other information contained in this document and the Appendices attached hereto, pursuant to Patent Local Rules 3-1(g) and 3-6.

C. LITERAL INFRINGEMENT AND DOCTRINE OF EQUIVALENTS

Multimodal asserts that, under the proper construction of the asserted claims and their claim terms, the limitations of the asserted claims of the Multimodal Patents are literally present in the Accused Products as set forth in the claim charts attached hereto as Appendices A–D. Multimodal contends that any and all elements found not to be literally infringed are infringed

under the doctrine of equivalents because the differences between the claimed inventions and the Accused Products, if any, are insubstantial. Multimodal contends that Defendants have directly infringed, and/or continues to directly infringe the asserted claims by making, using, offering for sale, selling, and importing into the United States the Accused Products. Multimodal also contends that Defendants indirectly infringe by contributing to and/or inducing others (*e.g.*, Defendants' network operators, server operators, Samsung's customers, and end-users) to directly infringe those claims by making or using the Accused Products. In addition, Multimodal contends that Defendants directly infringe to the extent that activities of third parties may be legally attributable to Defendants. Multimodal contends that Defendants induce infringement of the Multimodal Patents by others (*e.g.*, end-users of the Accused Products and Defendants' customers) by inducing others to make or use the Accused Products with the knowledge that this making or using directly infringes the Multimodal Patents or, in the alternative, with the belief that there was a high probability that others infringe the Multimodal Patents, but while remaining willfully blind to the infringement.

Pursuant to Patent Local Rule 3-6(a)(1), Multimodal reserves the right to amend its Infringement Contentions as to literal infringement or infringement under the doctrine of equivalents, e.g., in light of the Court's claim construction.

D. PRIORITY DATES

Each of the asserted claims of the '949 patent has a priority date (*i.e.*, earliest invention date) at least as early as February 3, 2009, with diligent reduction to practice at least through its February 3, 2009 filing date.

Each of the asserted claims of the '978 patent has a priority date (*i.e.*, earliest invention date) at least as early as April 25, 2007, with diligent reduction to practice at least through its

March 27, 2008 filing date. Each claim further is entitled to the priority date of its earliest application, Indian Patent Application No. 871/CHE/2007, with a filing date of April 25, 2007.

Each of the asserted claims of the ’227 patent has a priority date (*i.e.*, earliest invention date) at least early as April 22, 2012 (*see* produced inventor emails), with diligent reduction to practice at least through its December 12, 2013 filing date. Each claim further is entitled to a priority date no later than its earliest application, U.S. Provisional Patent Application No. 61/737,274, with a filing date of December 14, 2012.

Each of the asserted claims of the ’030 patent has a priority date (*i.e.*, earliest invention date) at least as early as October 15, 2012, with diligent reduction to practice at least through its October 11, 2013 filing date. Each claim further is entitled to the priority date of its earliest application, U.S. Provisional Patent Application No. 61/713,635, with a filing date of October 15, 2012.

Multimodal makes this disclosure without prejudice to its right to prove an earlier date of invention.

II. PRODUCTION OF DOCUMENTS PURSUANT TO PATENT LOCAL RULE 3-2

Multimodal is producing or making available for inspection documents that are in Multimodal’s possession, custody, or control, as set forth in Patent Local Rule 3-2(a):

None

Plaintiff is not in possession, custody, or control of any documents responsive to P.R. 3-2(b). Plaintiff states that such documents are in the possession of Kirusa, Inc. or Multimodal Media LLC.

Multimodal is producing or making available for inspection documents that are in Multimodal’s possession, custody, or control, as set forth in Patent Local Rule 3-2(c):

- MULTIMODAL-PATENTS-FH_0000001 – MULTIMODAL-PATENTS-FH_0000814

Multimodal is producing or making available for inspection documents that are cited in the attached claim charts:

- MULTIMODAL-SAMSUNG_0000001 - MULTIMODAL-SAMSUNG_0000348

Dated: May 30, 2023

Respectfully submitted,

/s/ Alfred R. Fabricant

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ATTORNEYS FOR PLAINTIFF, MULTIMODAL MEDIA LLC

CERTIFICATE OF SERVICE

I hereby certify that on May 30, 2023, a true and correct copy of the above and foregoing document and appendices has been served by email on all counsel of record.

/s/ *Alfred R. Fabricant*
Alfred R. Fabricant

MULTIMODAL 3-2 PRODUCTION INDEX

3-2(a)

None.

3-2(b)

Plaintiff is not in possession, custody, or control of any documents responsive to P.R. 3-2(b). Plaintiff states that such documents are in the possession of Kirusa, Inc. or Multimodal Media LLC.

3-2(c)

Bates Start	Bates End
MULTIMODAL-PATENTS-FH 0000001	MULTIMODAL-PATENTS-FH 0000814

Public Documents Listed in Infringement Charts

Bates Start	Bates End
MULTIMODAL-SAMSUNG 0000001	MULTIMODAL-SAMSUNG 0000348

Appendix A - Claim Chart for US Patent No. 7,929,949 Against Accused Samsung Galaxy S21 Ultra 5G

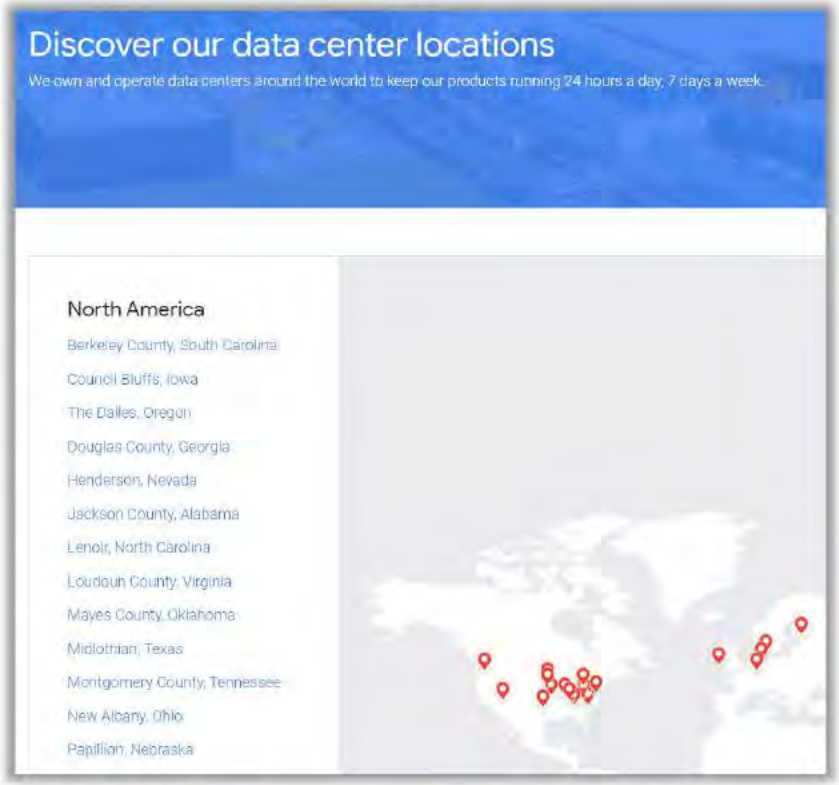
In these Infringement Contentions, Multimodal Media LLC ("Multimodal") contends that at least the following claims of U.S. Patent No. 7,929,949 ("'949 patent") identified below are infringed by Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. ("Defendants" or "Samsung") devices. Multimodal does not concede that any claims of the '949 patent that are not listed below are not infringed by the identified products. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Multimodal from citing or relying on additional documents, information, source code, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Samsung's products, internal documentation, source code, and/or testimony from relevant witnesses may more fully and accurately describe the infringing features of its accused products. Accordingly, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions once such additional information is made available to Multimodal. Furthermore, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions: as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Defendants, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

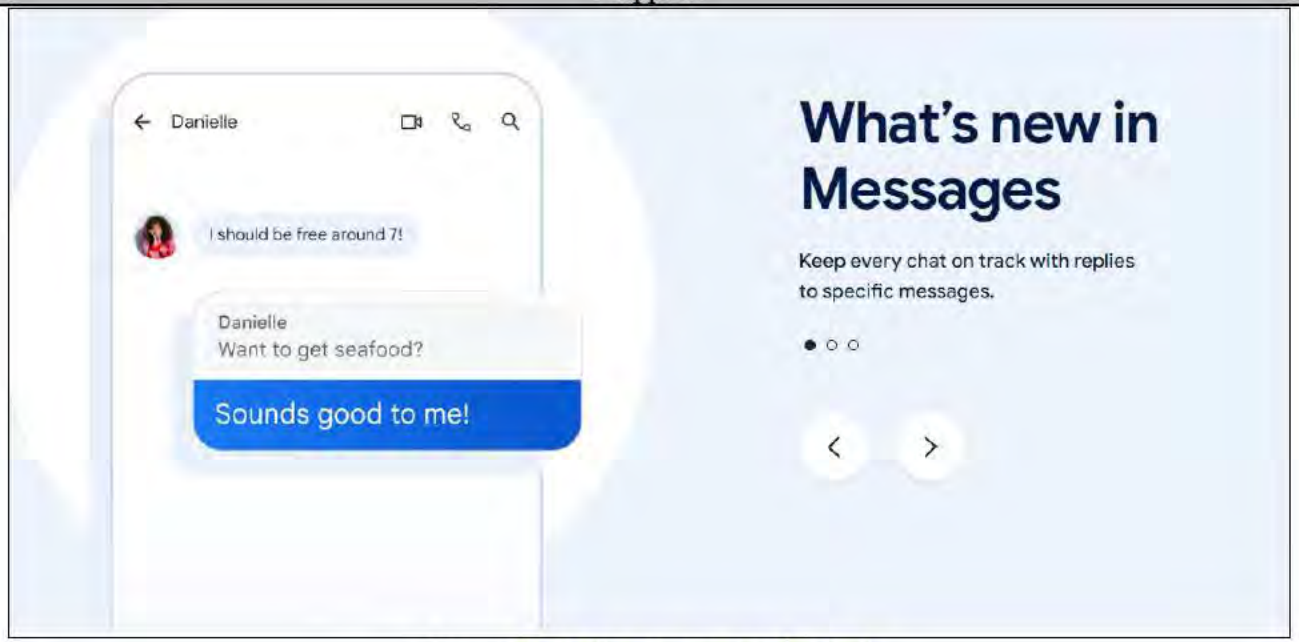
Representativeness: The Samsung Galaxy S21 Ultra 5G phone depicted in this chart is believed to be representative of other Samsung mobile devices that operate on the Android OS v.10 or later, including the Galaxy S10, Galaxy S10+, Galaxy A50, Galaxy A51, Galaxy S9, Galaxy Note10+, Galaxy Note9, Galaxy S10e, Galaxy S9+, Galaxy Note10, Galaxy A71, Galaxy A20, Galaxy A10, Galaxy A30, Galaxy A70, Galaxy S10 5G, Galaxy A7 (2018), Galaxy A30s, Galaxy A10s, Galaxy A20s, Galaxy A50s, Galaxy J6, Galaxy A01, Galaxy A80, Galaxy M20, Galaxy A40, Galaxy M30s, Galaxy A6 (2018), Galaxy M30, Galaxy Note10+ 5G, Galaxy A90 5G, Galaxy Note10 5G, Galaxy A20e, Galaxy M40, Galaxy A10e, Galaxy Fold, Galaxy A70s, Galaxy A60, Galaxy M10s, Galaxy Fold 5G, Galaxy Xcover 4s, Galaxy S20 FE 5G, Galaxy A12, Galaxy S20, Galaxy Note20 Ultra 5G, Galaxy S20 Ultra 5G, Galaxy A21s, Galaxy A31, Galaxy Note20, Galaxy S20+, Galaxy A11, Galaxy M31, Galaxy S20 FE, Galaxy S20 5G, Galaxy Z Fold2 5G, Galaxy M51, Galaxy M21, Galaxy A02s, Galaxy S20 Ultra, Galaxy S20+ 5G, Galaxy Note10 Lite, Galaxy M11, Galaxy Note20 Ultra, Galaxy A21, Galaxy S10 Lite, Galaxy A42 5G, Galaxy Z Flip, Galaxy M31s, Galaxy Note20 5G, Galaxy A01 Core, Galaxy A51 5G, Galaxy A71 5G, Galaxy M01, Galaxy A41, Galaxy F41, Galaxy M01 Core, Galaxy Xcover Pro, Galaxy Z Flip 5G, Galaxy M01s, Galaxy A Quantum, Galaxy M21s, Galaxy A71 5G UW, Galaxy A51 5G UW, Galaxy S20 5G UW, Galaxy M31 Prime, Galaxy S21 5G, Galaxy A32, Galaxy A52, Galaxy A03, Galaxy A52s 5G, Galaxy A03s, Galaxy A03 Core, Galaxy A22, Galaxy S21+ 5G, Galaxy A72, Galaxy A22 5G, Galaxy A32 5G, Galaxy A13 5G, Galaxy M32, Galaxy M52 5G, Galaxy A02, Galaxy Z Flip3 5G, Galaxy A52 5G, Galaxy M12, Galaxy Z Fold3 5G, Galaxy F22, Galaxy F62, Galaxy M02, Galaxy M32 5G, Galaxy Xcover 5, Galaxy M62, Galaxy F12, Galaxy M02s, Galaxy M22, Galaxy A12 Nacho, Galaxy F42 5G, Galaxy M42 5G, Galaxy Quantum 2, Galaxy M21 2021, Galaxy F02s, Galaxy F52 5G, Galaxy A13, Galaxy S21 FE 5G, Galaxy S22 Ultra 5G, Galaxy A23, Galaxy A53 5G, Galaxy A73 5G, Galaxy S22 5G, Galaxy A04, Galaxy A33 5G, Galaxy A04s, Galaxy A23 5G, Galaxy A04e, Galaxy M33, Galaxy Z Fold4, Galaxy S22+ 5G, Galaxy Z Flip4, Galaxy F23, Galaxy F13, Galaxy M53, Galaxy M13, Galaxy M23, Galaxy M04, Galaxy Xcover6 Pro, Galaxy M13 5G, Galaxy A13 (SM-A137), Galaxy S20 FE 2022, Galaxy A54, Galaxy S23 Ultra, Galaxy A34, Galaxy A14, Galaxy S23, Galaxy A24 4G, Galaxy A14 5G, Galaxy S23+, Galaxy M14, Galaxy M54, Galaxy F14, Galaxy F04, Galaxy Tab A8 10.5 (2021), Galaxy Tab A7 Lite, Galaxy Tab S8, Galaxy Tab S6 Lite, Galaxy Tab S7 FE, Galaxy Tab S8 Ultra, Galaxy Tab S6 Lite (2022), Galaxy Tab A7 10.4 (2020), Galaxy Tab S7, Galaxy Tab S8+, Galaxy Tab A 10.1 (2019), Galaxy Tab S9 Ultra, Galaxy Tab A 8.0 (2019), Galaxy Tab S6, Galaxy Tab S7+, Galaxy Tab S5e, Galaxy Tab A7 10.4 (2022), Galaxy Tab Active4 Pro, Galaxy Tab S4 10.5, Galaxy Tab Active3, Galaxy Tab A 8.0 & S Pen (2019), Galaxy Tab A 10.5, Galaxy Tab A 8.4 (2020), and Galaxy Tab S6 5G (the "Accused Products"). Based on publicly available information, Multimodal believes that the Samsung Galaxy S21 depicted herein and other Samsung mobile phones that operate on the Android OS share substantially the same structure and functionality with respect to the components

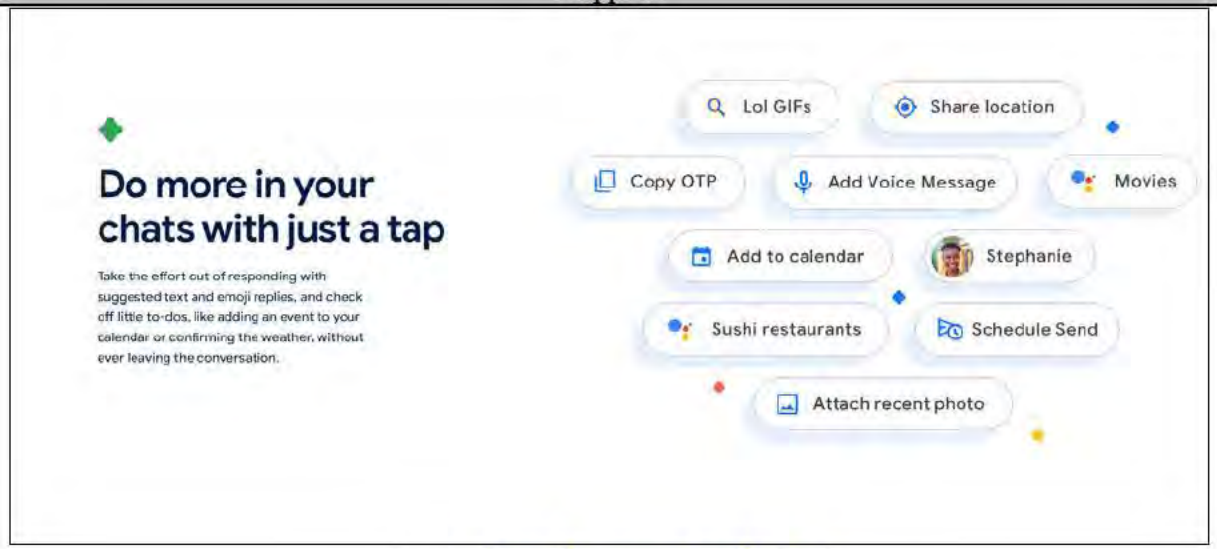
which are relevant to infringement. Should discovery yield documents or information demonstrating that Defendants sell other infringing devices, Multimodal reserves the right to amend its infringement contentions to include a chart mapping the claims of the '949 Patent to the structure and function of the newly discovered devices.

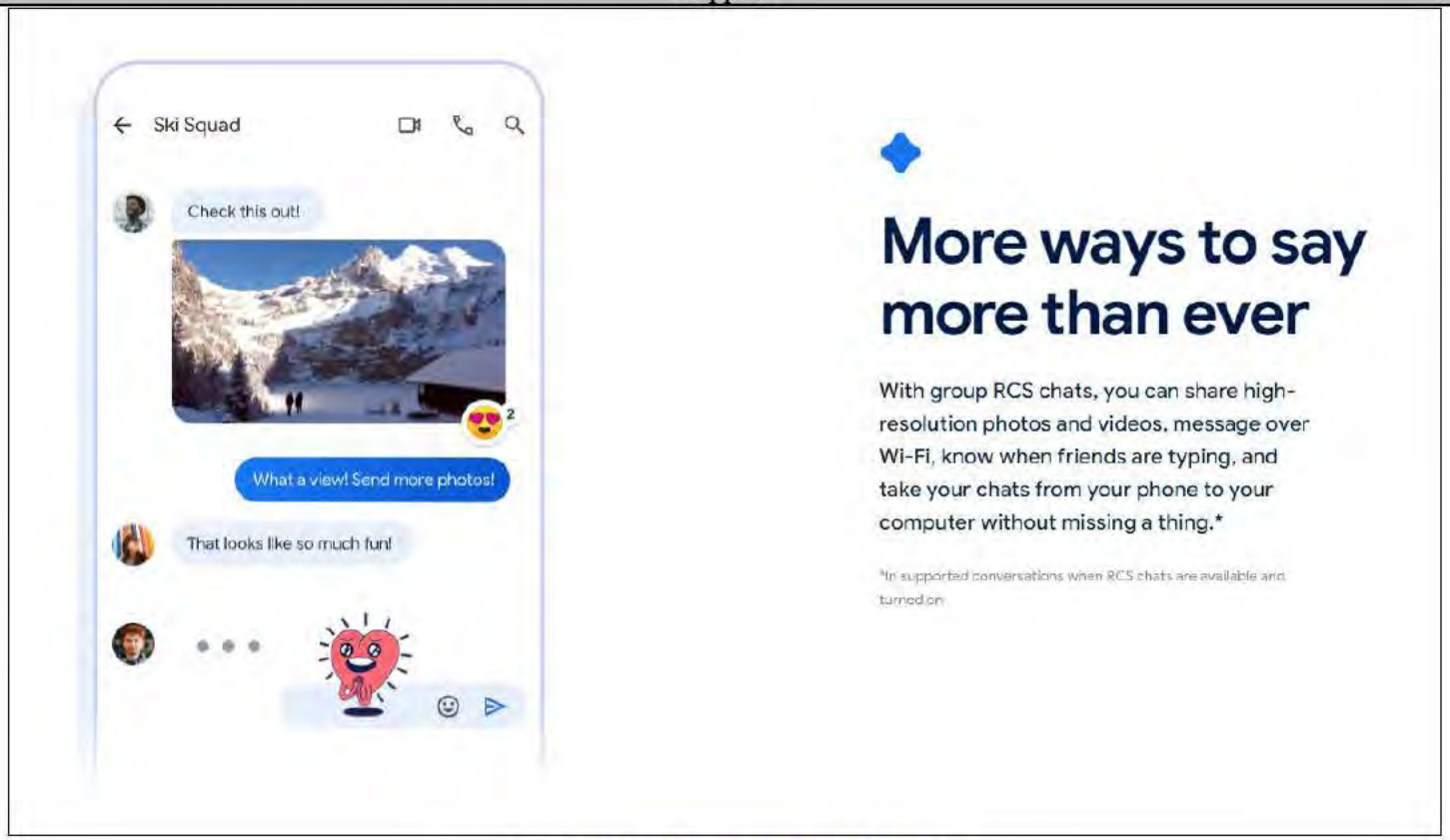
Plaintiff contends that users of the Accused Products, including Samsung itself during testing and qualification of the Accused Products, perform each step of the claimed method. Alternatively, backend servers, under the direction and control of the Samsung handsets, perform certain steps of the claimed method. Samsung and its users derive benefit from their use of the infringing method by: (i) saving bandwidth in the initial notification by using a pointer to point to the multimodal message that is stored on a server; (ii) increasing convenience to the user by enabling the sender's multimodal message to be quickly received; and (iii) allowing the method to operate in situations in which it would not otherwise be able to operate such as when the user does not have a data connection.

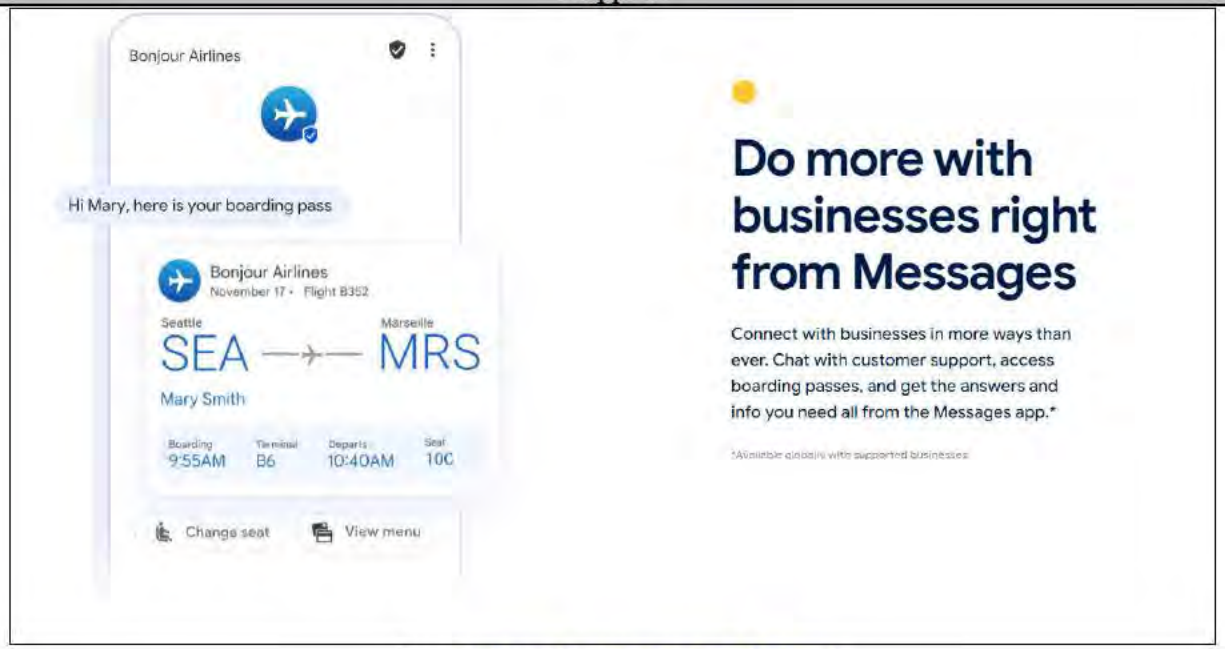
Claim	Support
[1P] A method of enabling a recipient to interact with an interactive multimodal message triggered on a mobile device of said recipient, comprising the steps of: [1A] creating said interactive multimodal message by a sender using a client application available to said sender, wherein said created	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs a method of enabling a recipient to interact with an interactive multimodal message triggered on a mobile device of said recipient, comprising the step of 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. For example, the user of the sending device causes the Accused Products, Android-based mobile devices, to send messages having multiple modes and interactive content. For example, the user causes the Accused Products to create interactive multimodal messages in the Google Messages application, which is a heavily featured and built-in app of the Android platform. Messages are stored at one or more servers, including Google servers. For example, Google has servers for storing data, transmitting data, and providing service for Android Messages, Google Maps, and other Google communication applications.

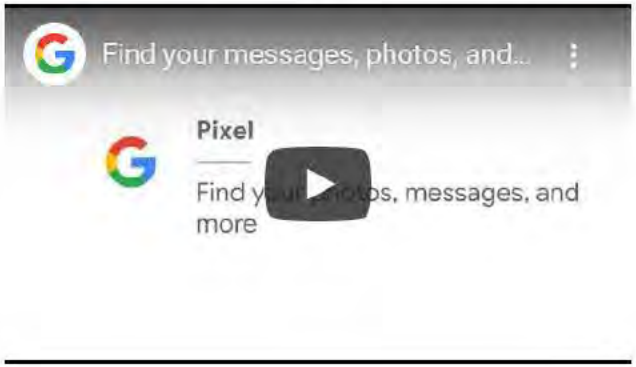
Claim	Support
interactive multimodal message is stored at a server;	 Source: https://www.google.com/about/datacenters/locations/

Claim	Support
	 Source: https://messages.google.com/

Claim	Support
	 Source: https://messages.google.com/

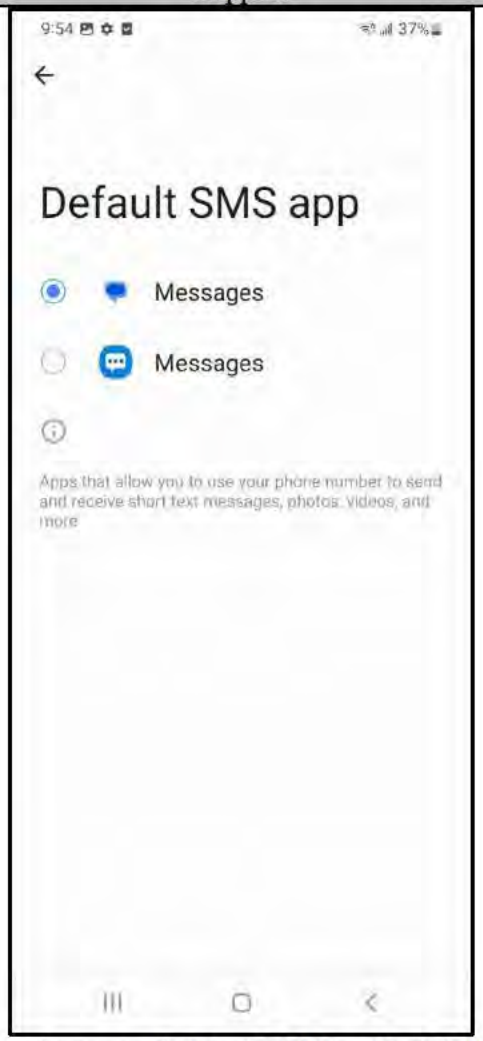
Claim	Support
	 Source: https://messages.google.com/

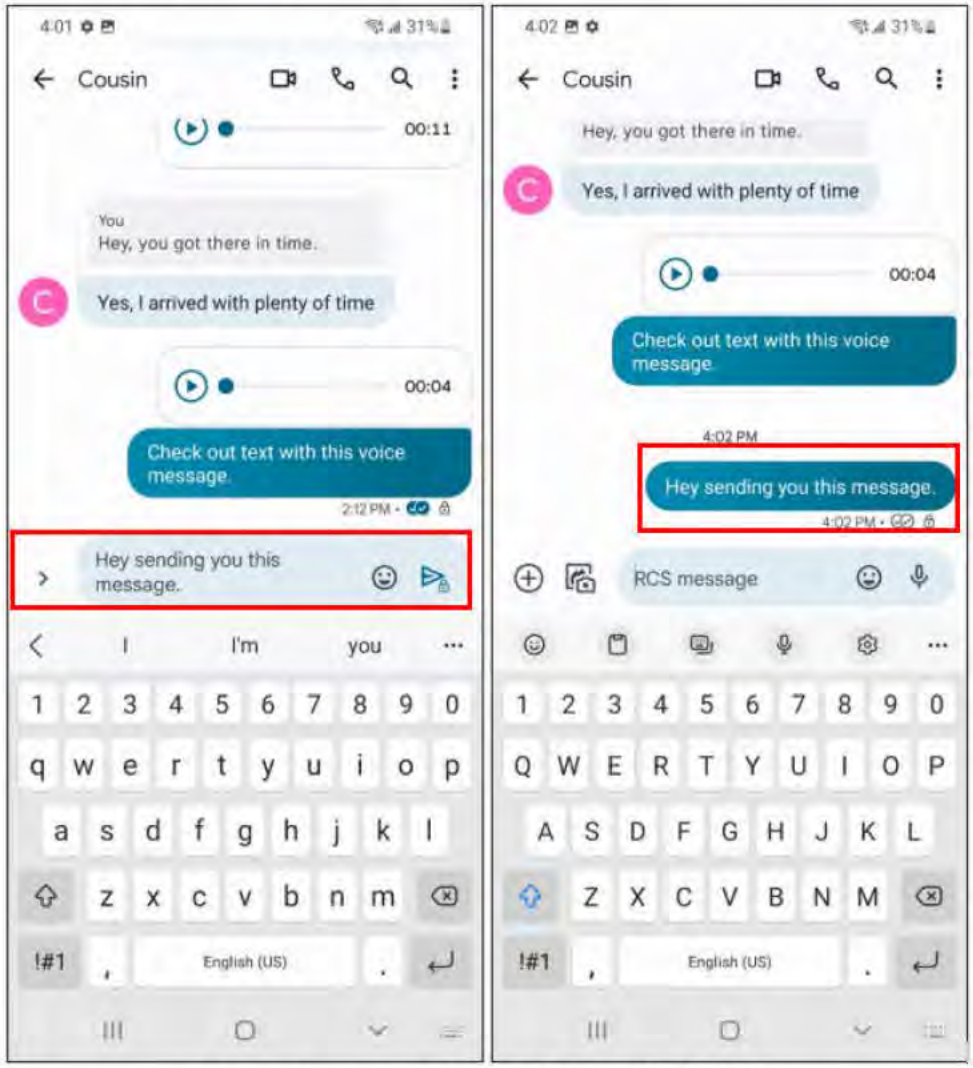
Claim	Support
	 Source: https://messages.google.com/

Claim	Support
	Send photos, videos, or voice messages in Messages You can send and receive photos, videos, or audio files as multimedia messages (MMS) in Messages. Notes: • On devices running Android 6.0 and up, you'll need to give Messages permission to send or get files. Learn about app permissions. • Some of these steps work only on Android 6.0 and up. Learn how to check your Android version. 

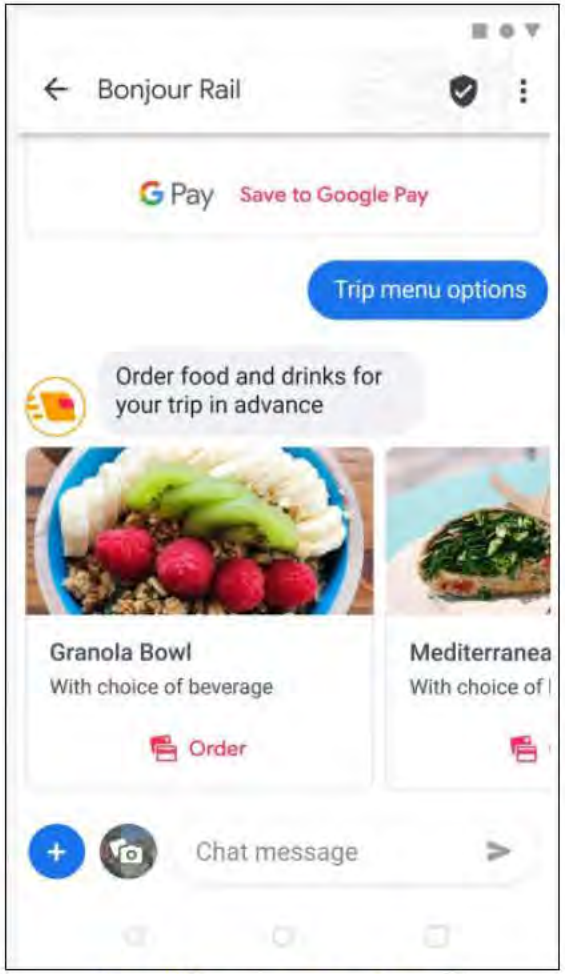
Claim	Support
	Send photos, videos, or voice messages in Messages Messages lets you send and receive photos, videos, audio files, or GIFs as multimedia over MMS. **Important:** • Some steps only work on Android 6.0 and up. Learn how to check your Android version. • To send or receive files, grant permission to Messages. Control your app permissions. **Send photos, videos, files, or GIFs** 1. Open the Messages app . 2. Open or start a conversation. 3. Tap Attach . 4. Select a file. 5. Tap Send . **Tip:** Photos or recordings that you take in Android Messages aren't saved on your device.

Claim	Support
	Send voice messages 1. Open the Messages app. 2. Open or start a conversation. 3. Press and hold Mic. 4. Record your message. 5. Tap Send. To cancel a voice message, swipe left on the chat or close the message. **Send your location** 1. Open the Messages app. 2. Open or start a conversation. 3. Tap Attach. > Location > Send. Source: https://support.google.com/messages/answer/6159880?hl=en Accused products such as Samsung Galaxy S21 Ultra 5G provides users with an option to select Google messages as a default messaging application. Further, as per information and belief, the latest Samsung devices such as the Galaxy S23 series have Google Messages as the default messaging platform.

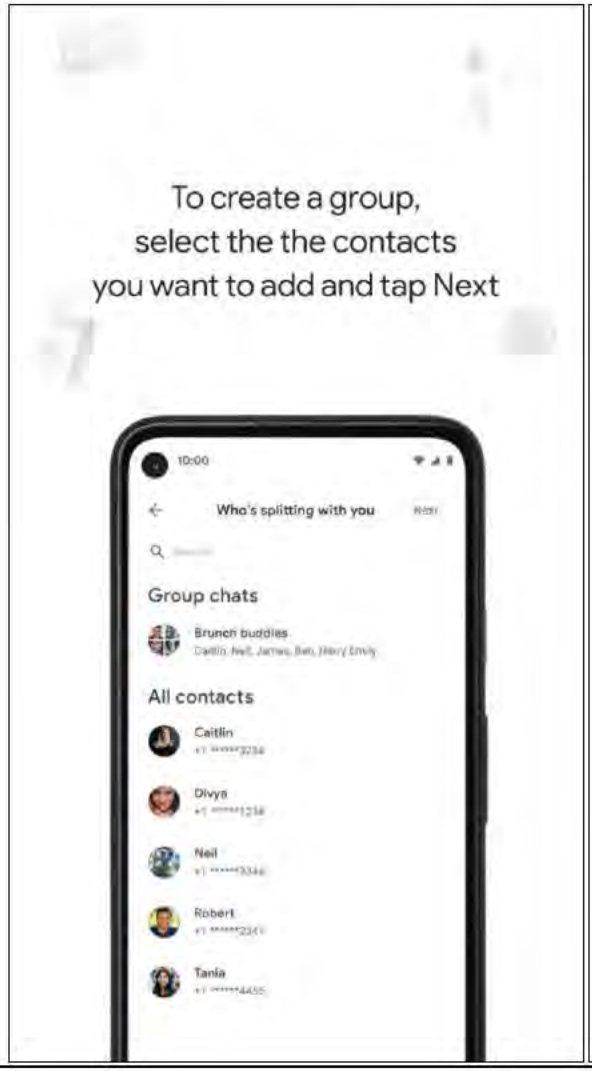
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/2023 The following images demonstrate the creation of different interactive multimodal messages on the sender's client application that are sent to the recipient mobile device. The recipient's mobile device automatically interacts with the messages on the mobile device.

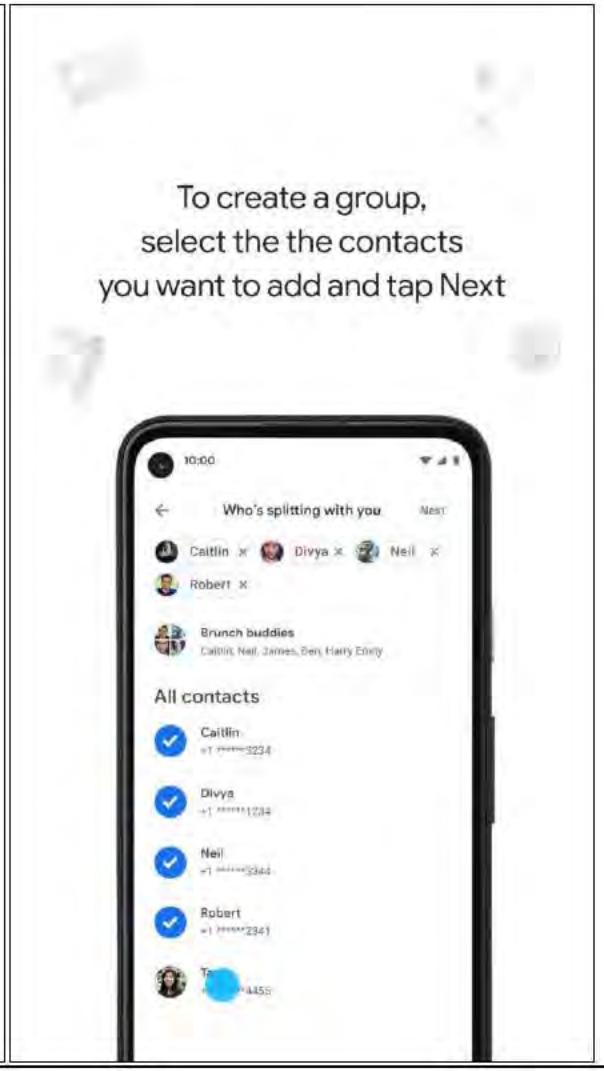
Claim	Support
	The following image shows a message creation on the sender's client application. Recipient's device automatically provides notification when the message is delivered and when it is read.  Source: Samsung Galaxy S21 Ultra 5G 05/25/23

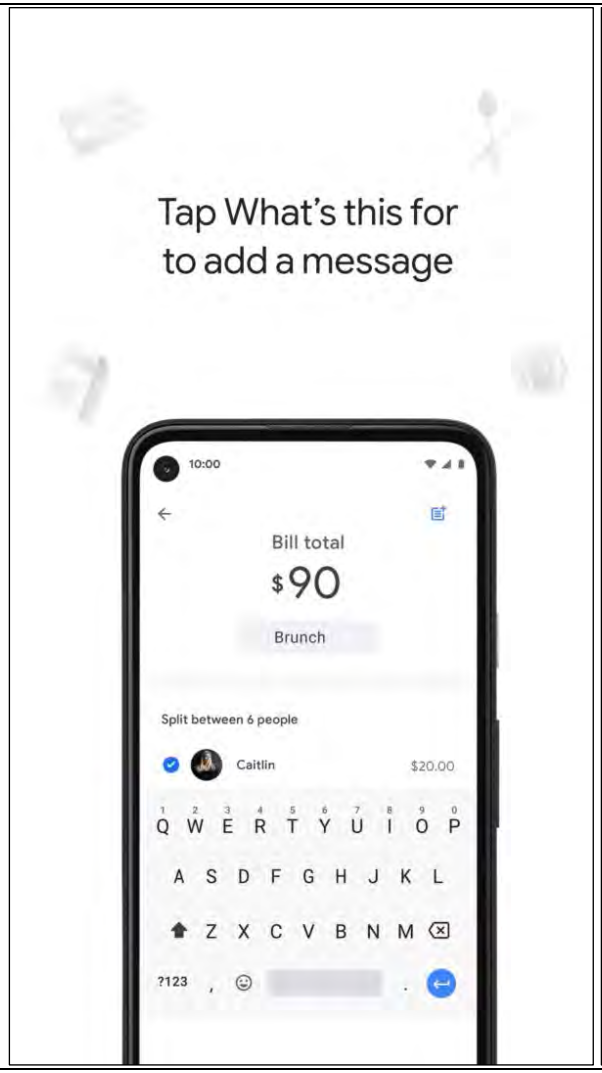
Claim	Support
	RCS chats by Google FAQ What devices work with RCS chats? What are RCS chats? How do I turn on RCS chats? How do I know if my message was sent? Messages tells you when your message has been sent, received, and read through the icons next to your message: **Important:** These icons won't show on SMS or MMS messages. • Timer : Your message is being sent. • Single check : Your message has been sent. • Double check : Your message has been delivered. • Color-filled double check : Your message has been read. https://support.google.com/messages/answer/9487020?hl=en&ref_topic=9459217#zippy=%2Chow-do-i-know-if-my-message-was-sent

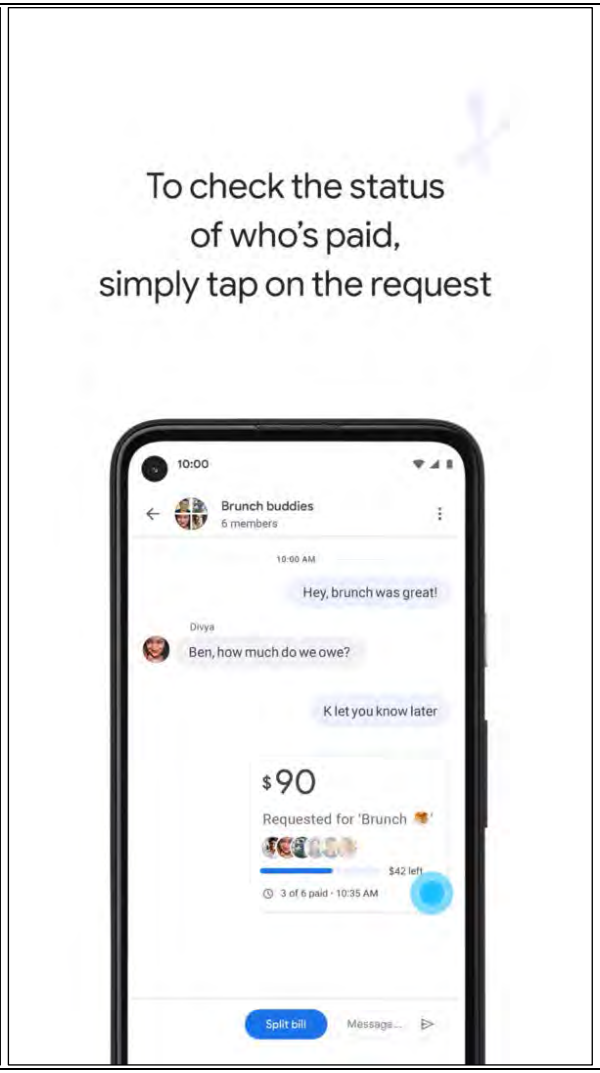
Claim	Support
	The following image shows a message created on the sender's client application enabling a user to interact with the message and select a service.  https://messages.google.com/

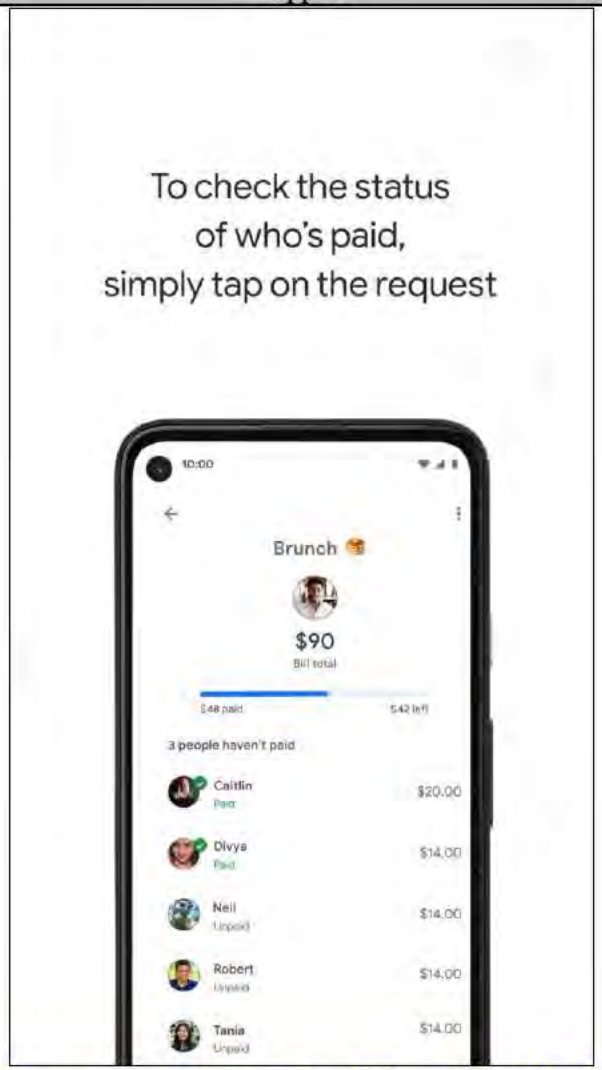
Claim	Support
	Group messages can be used to split a check between group members. The following images show message creation and interaction.

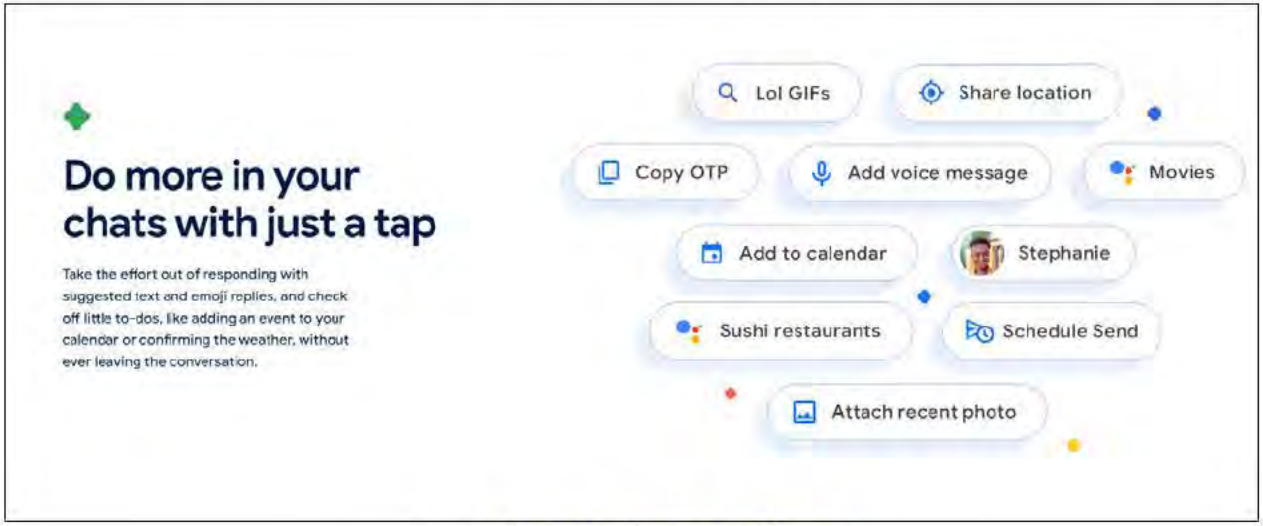


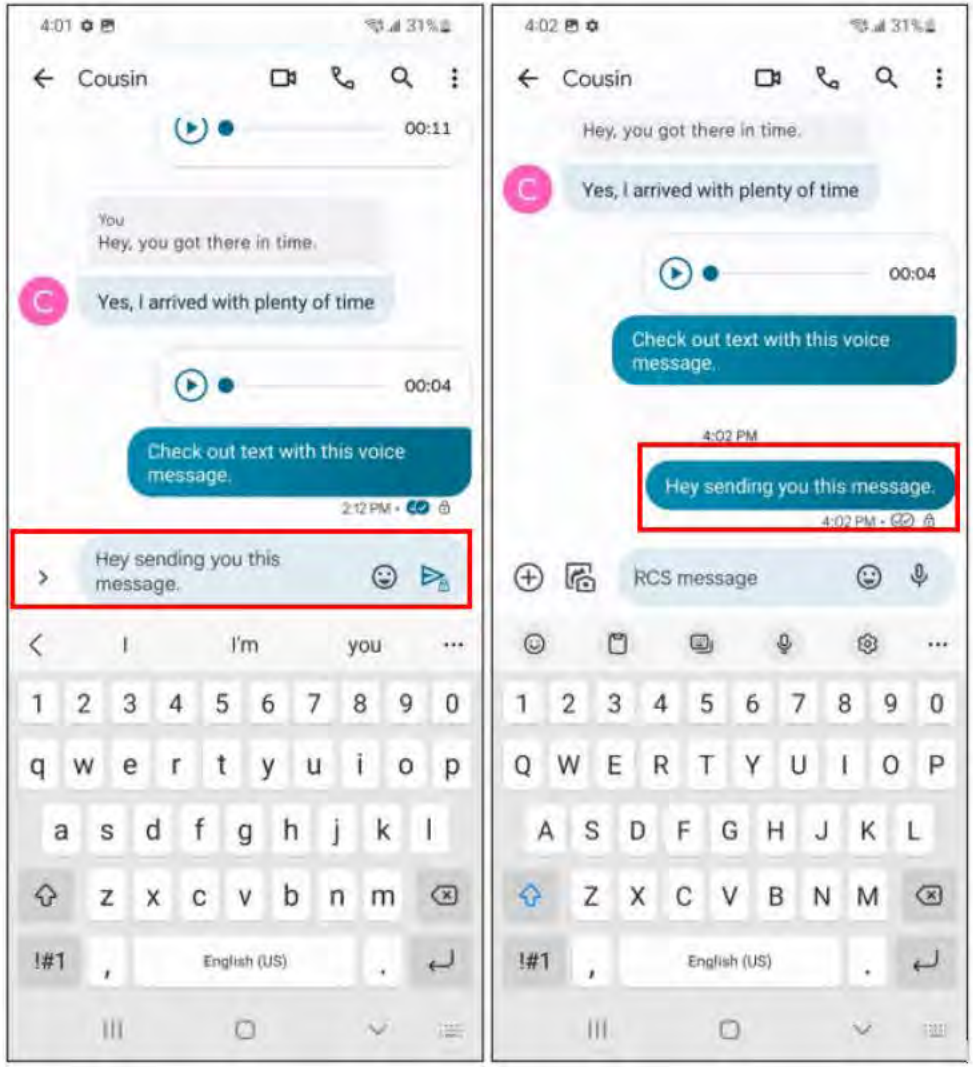


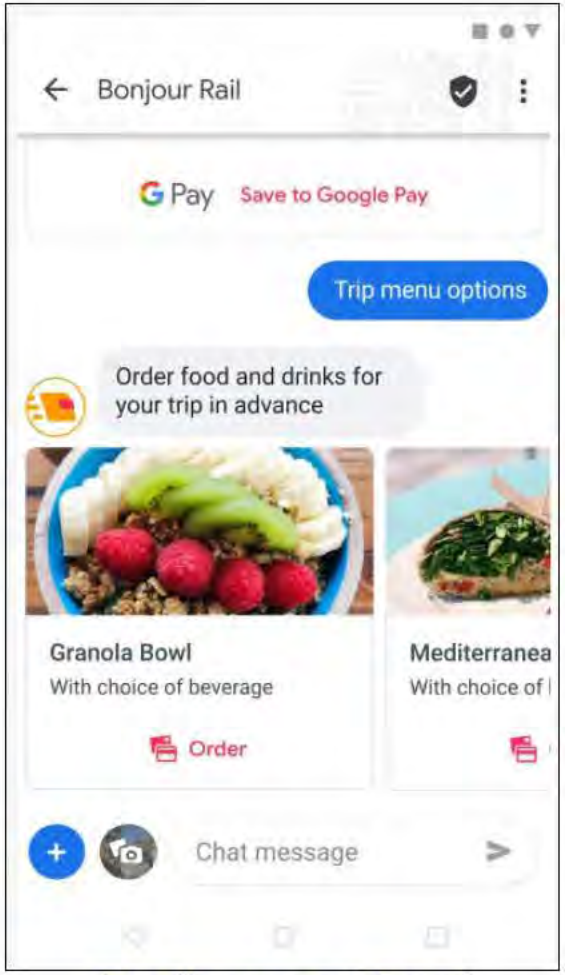

Tap What's this for
to add a message
10:00
Bill total
$90
Brunch
Split between 6 people
Caitlin
$20.00

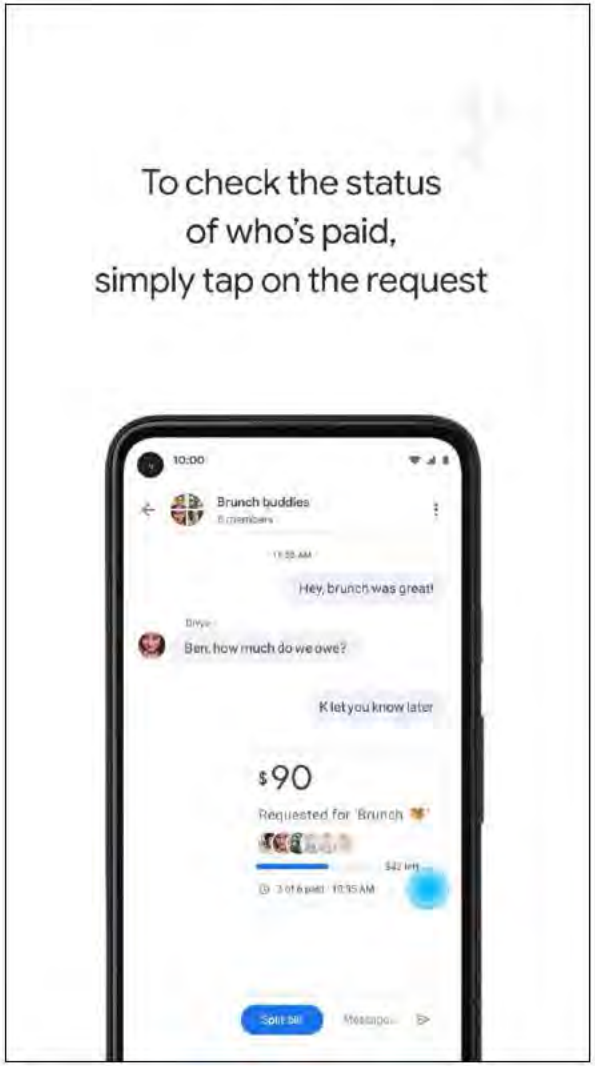
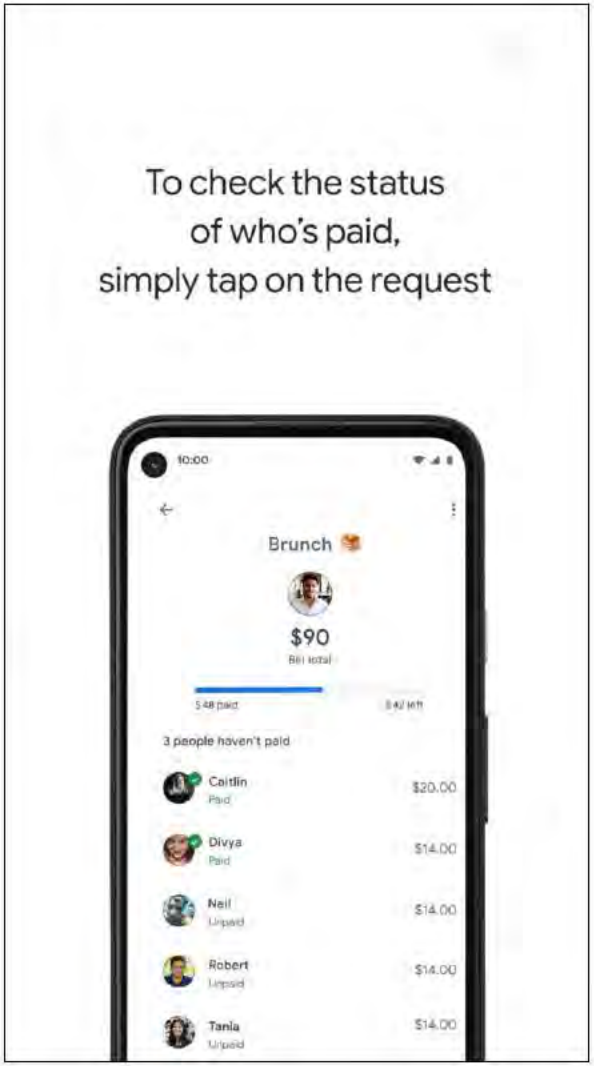

To check the status
of who's paid,
simply tap on the request
10:00
Brunch buddies
6 members
Hey, brunch was great!
Divya
Ben, how much do we owe?
K let you know later
$90
Requested for 'Brunch
$42 left
3 of 6 paid · 10:35 AM
Split bill
Message...

Claim	Support
	 https://www.youtube.com/watch?v=mfUd8DkILcQ Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses.

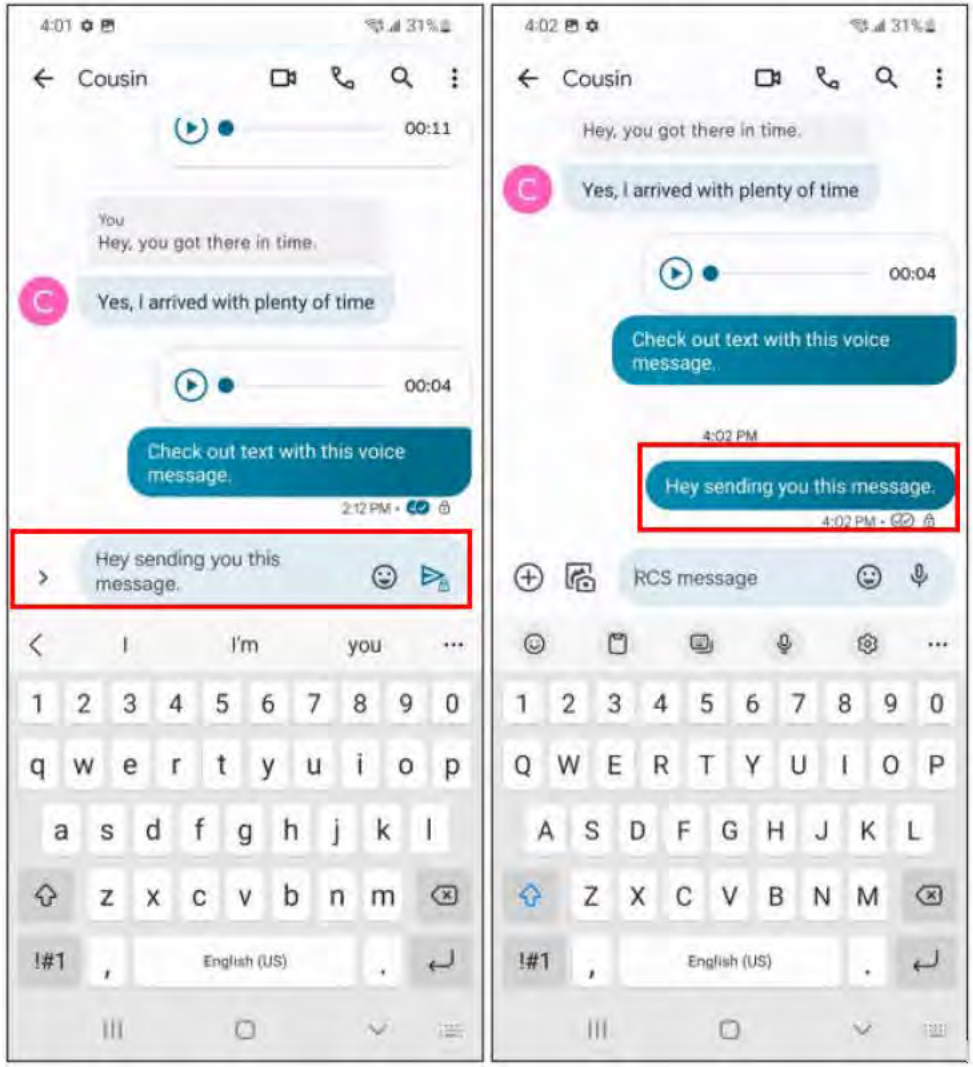
Claim	Support
	Plaintiff reserves the right to supplement after inspection of relevant source code.
[1B] sending a notification comprising a pointer to said stored interactive multimodal message to said mobile device of the recipient by said server;	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs the step of sending a notification comprising a pointer to said stored interactive multimodal message to said mobile device of the recipient by said server. For example, the user of the sending device causes the Accused Products to automatically send audio notifications with pointers to service content. For example, the user of the sending device causes the server, for example Google servers, to automatically send notifications.  Source: https://messages.google.com/

Claim	Support
	A pointer enables the message to automatically be individually marked as delivered and read.  Source: Samsung Galaxy S21 Ultra 5G 05/25/23

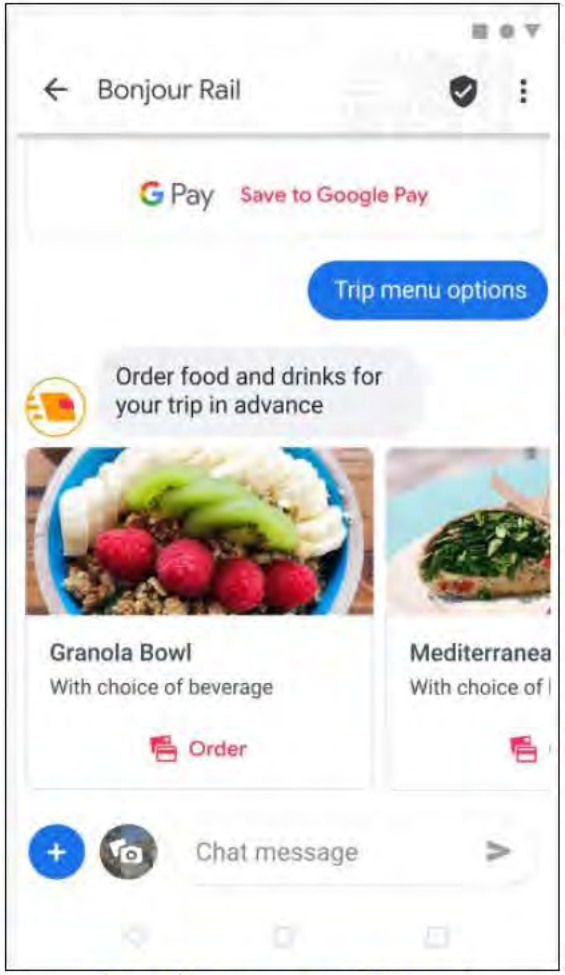
Claim	Support
	A pointer enables interaction with the message and the service.  https://messages.google.com/

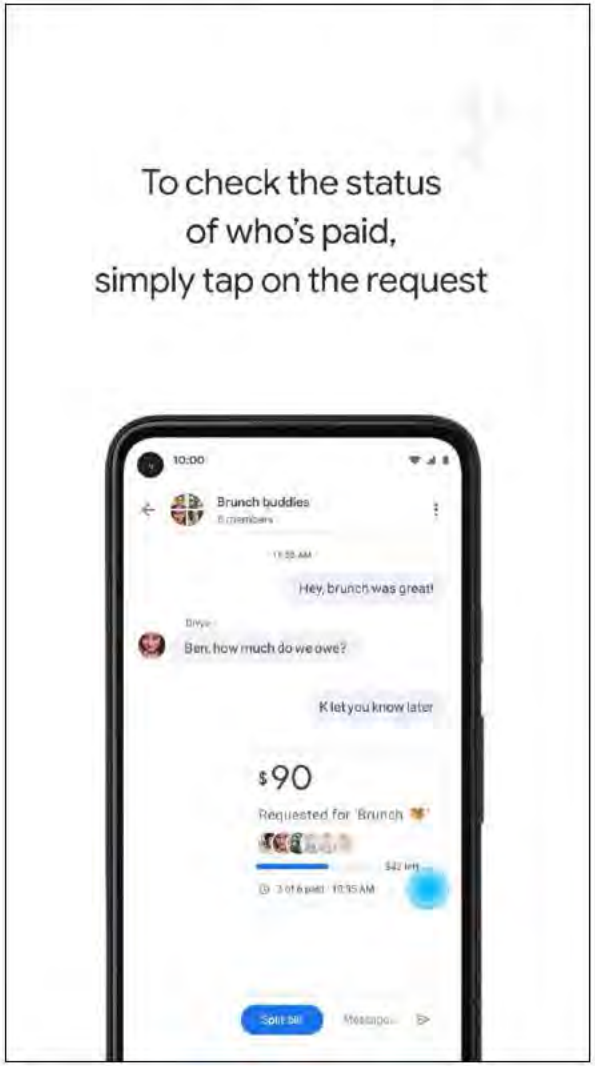
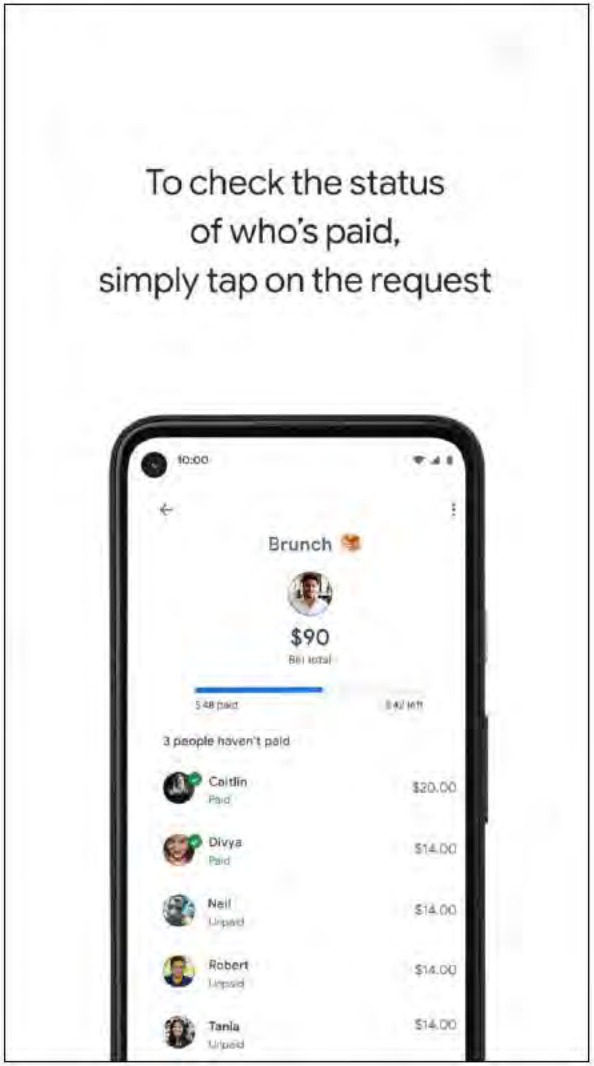
Claim	Support
	A pointer enables payment and automatic notificaiton of payment.   https://www.youtube.com/watch?v=mfUd8DkILcQ

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1C] triggering the stored interactive multimodal message on the mobile device of the recipient by accessing said pointer in said notification; and	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs the step of triggering the stored interactive multimodal message on the mobile device of the recipient by accessing said pointer in said notification. For example, the user of the sending device causes the Accused Products to automatically trigger the stored message when the recipient device accesses the pointer stored files and service content. For example, on information and belief, when the recipient device is connected on Google Message Chat via a Wi-Fi connection, files received through Google Messages Chat are automatically downloaded. Using mobile data, the recipient can opt to automatically download files received through Google Messages Chat. *See* [1A] and [1B].

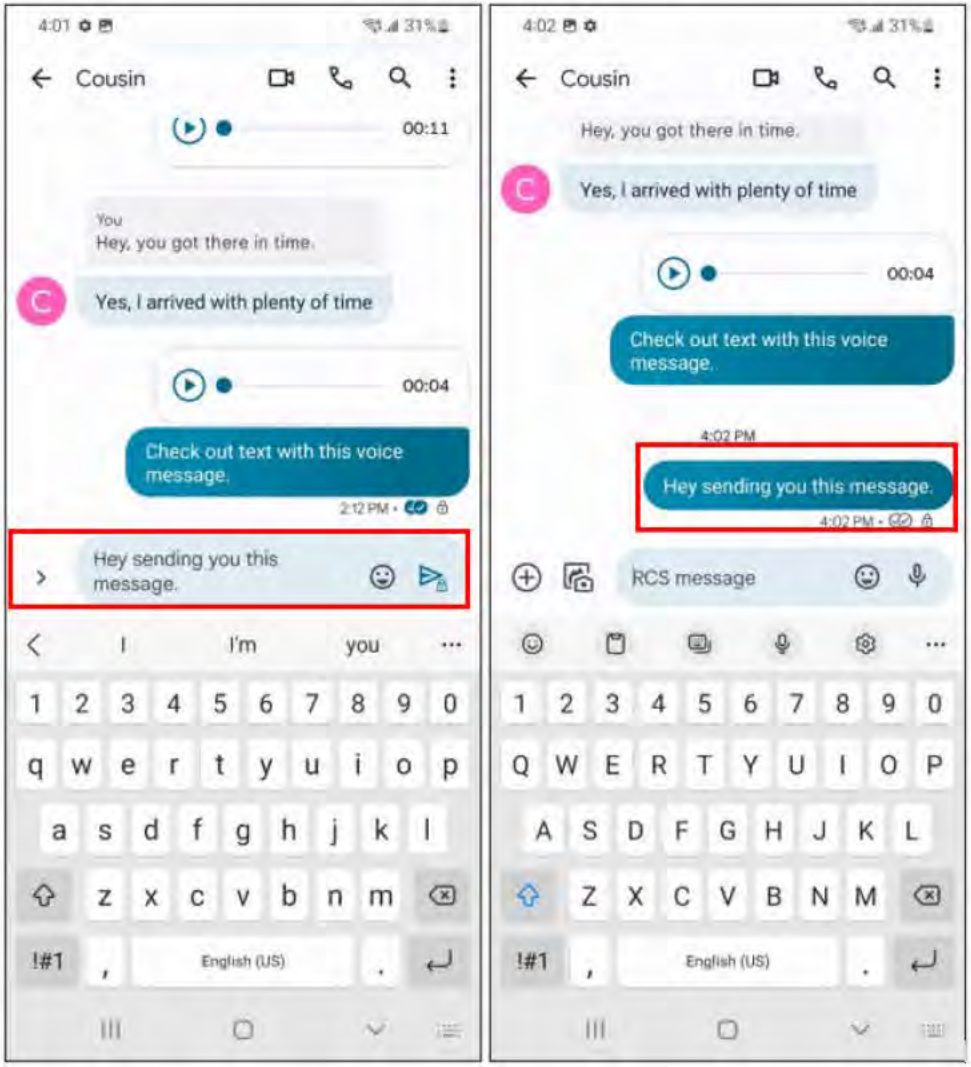
Claim	Support
	The message is automatically triggered on the recipient's device by the pointer when the message is delivered and read.  Source: Samsung Galaxy S21 Ultra 5G 05/25/23

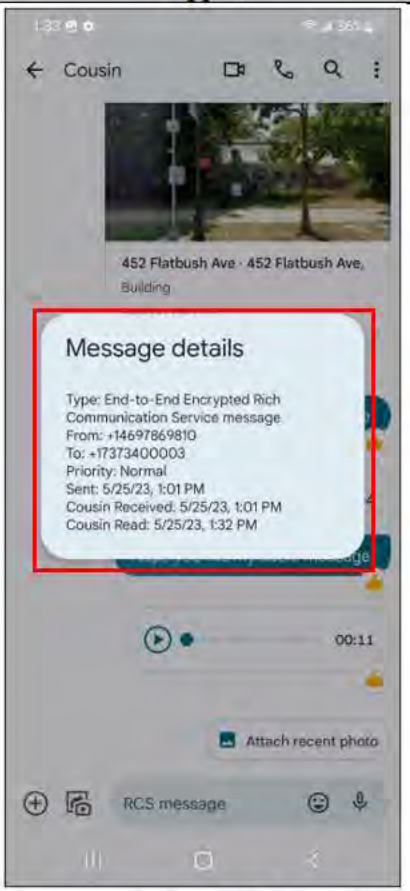
Claim	Support
	RCS chats by Google FAQ What devices work with RCS chats? What are RCS chats? How do I turn on RCS chats? How do I know if my message was sent? Messages tells you when your message has been sent, received, and read through the icons next to your message: **Important:** These icons won't show on SMS or MMS messages. • Timer : Your message is being sent. • Single check : Your message has been sent. • Double check : Your message has been delivered. • Color-filled double check : Your message has been read. https://support.google.com/messages/answer/9487020?hl=en&ref_topic=9459217#zippy=%2Chow-do-i-know-if-my-message-was-sent

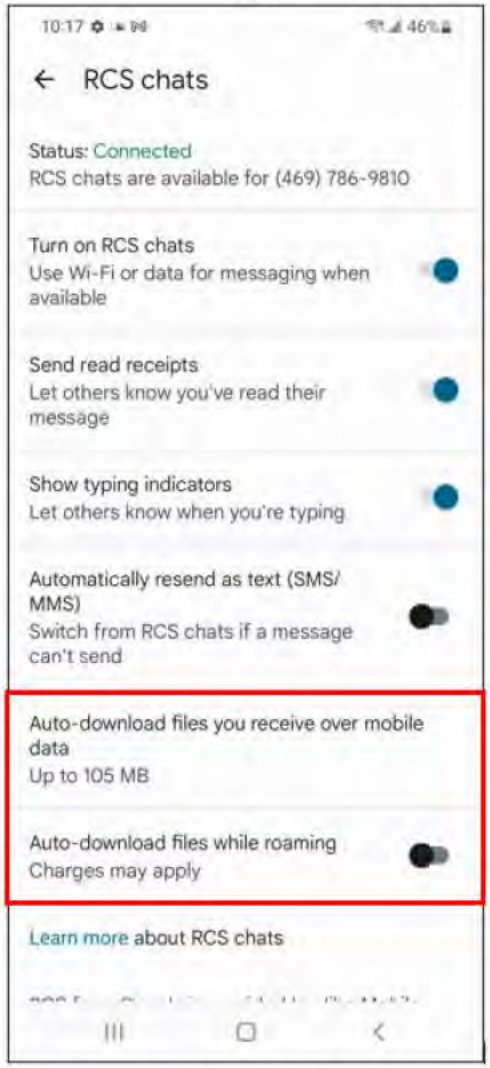
Claim	Support
	The message is automatically triggered upon downloading the message.  https://messages.google.com/

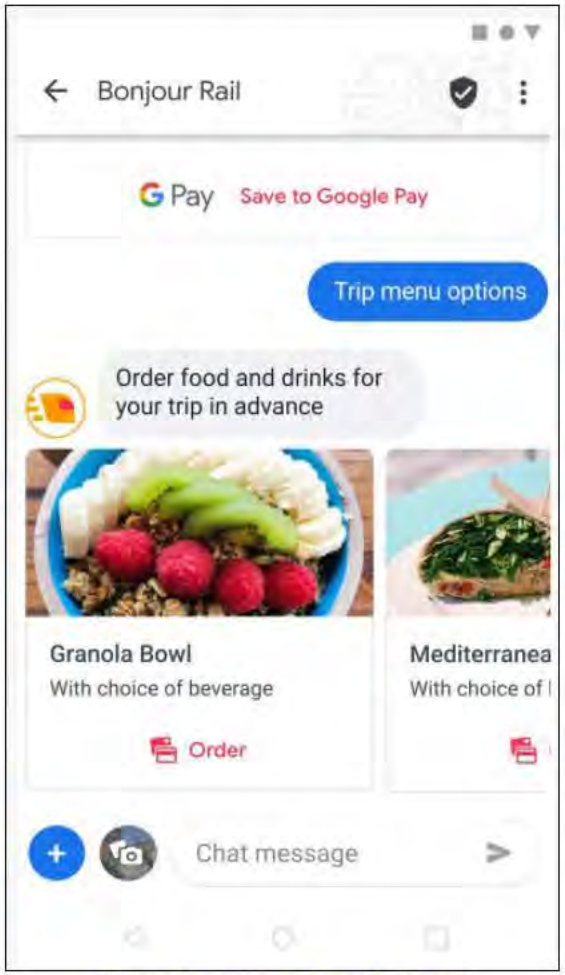
Claim	Support
	The message is automatically triggered as payments are made.   https://www.youtube.com/watch?v=mfUd8DkILcQ

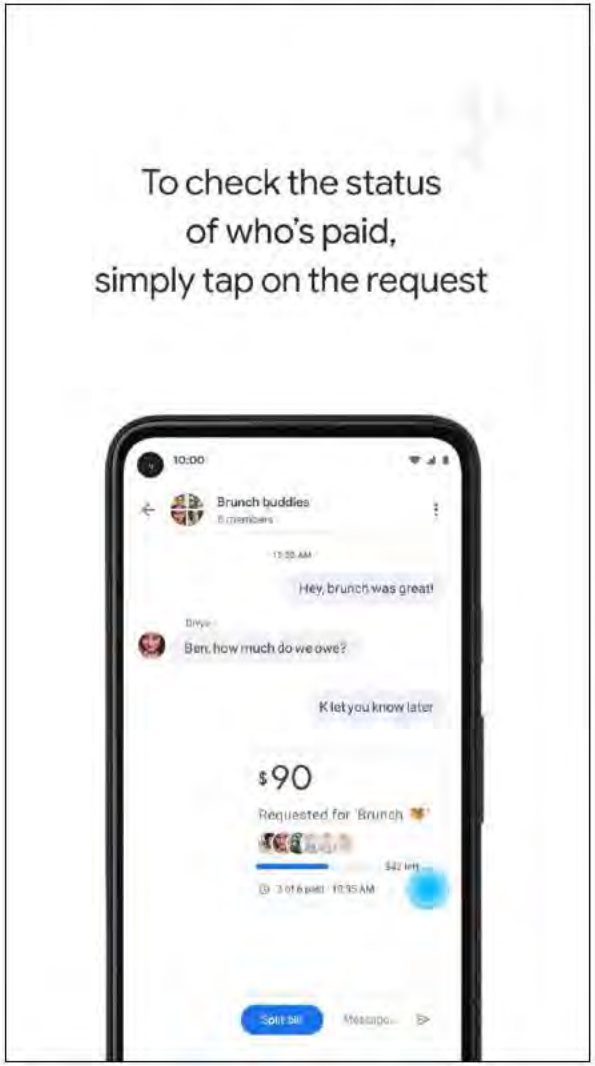
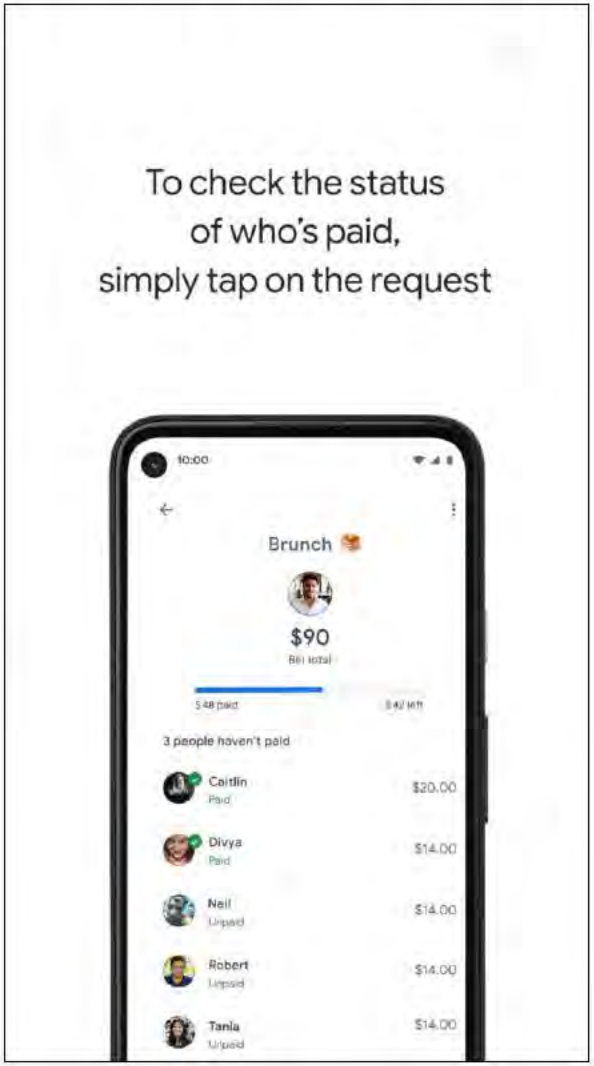
Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1D] transmitting service information to the mobile device of the recipient through said triggered interactive multimodal message;	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs the step of transmitting service information to the mobile device of the recipient through said triggered interactive multimodal message. For example, when the recipient device automatically downloads content, the user of the sending device causes the Accused Devices (via the content server) to automatically transmit service information (e.g., advertisements, alerts, the stored audio file, image previews) to the mobile device of the recipient through said triggered interactive multimodal message (e.g., through the accessed pointer in the triggered interactive multimodal message). *See* [1A], [1B] and [1C].

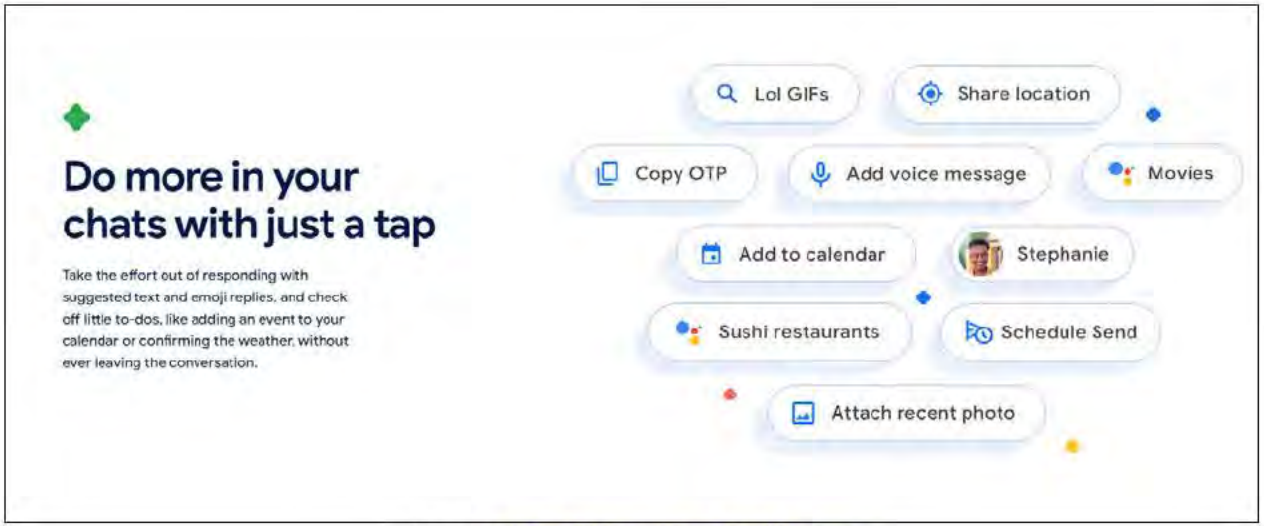
Claim	Support
	Service information can be sent within the triggered interactive multimodal message.  Source: Samsung Galaxy S21 Ultra 5G 05/25/23

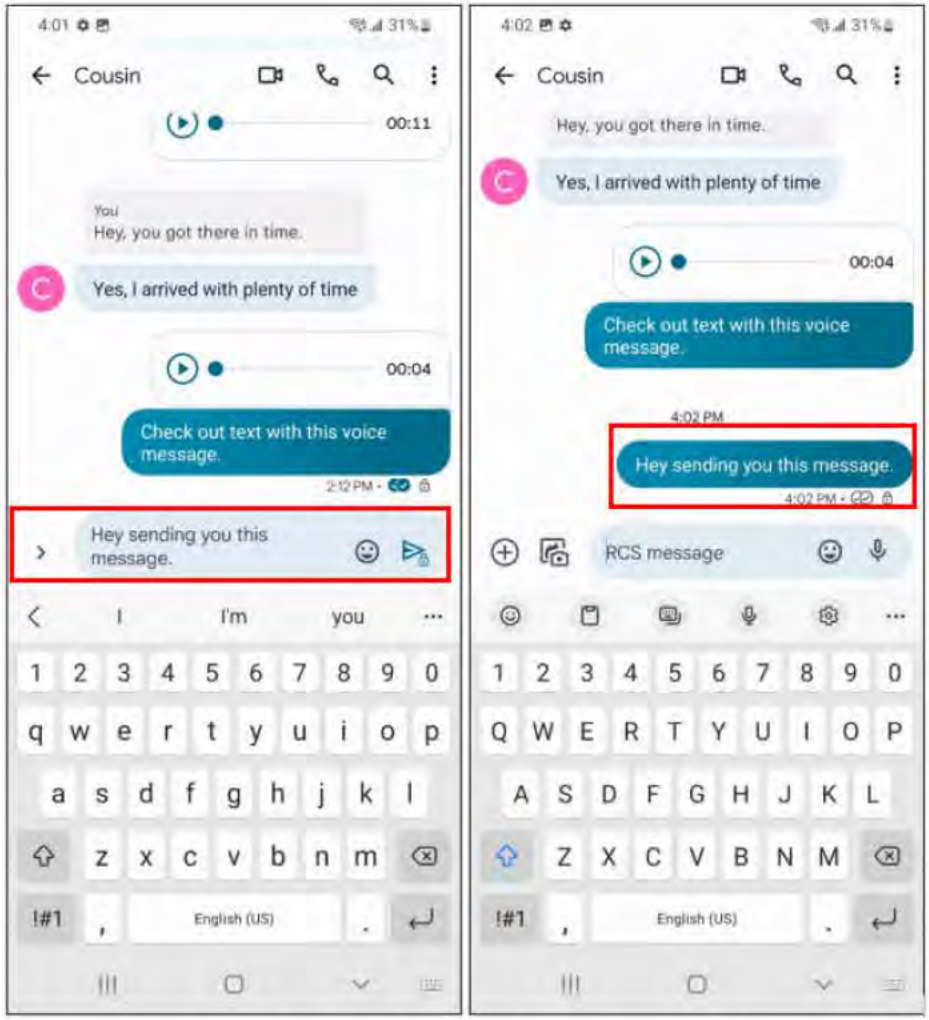
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/25/23

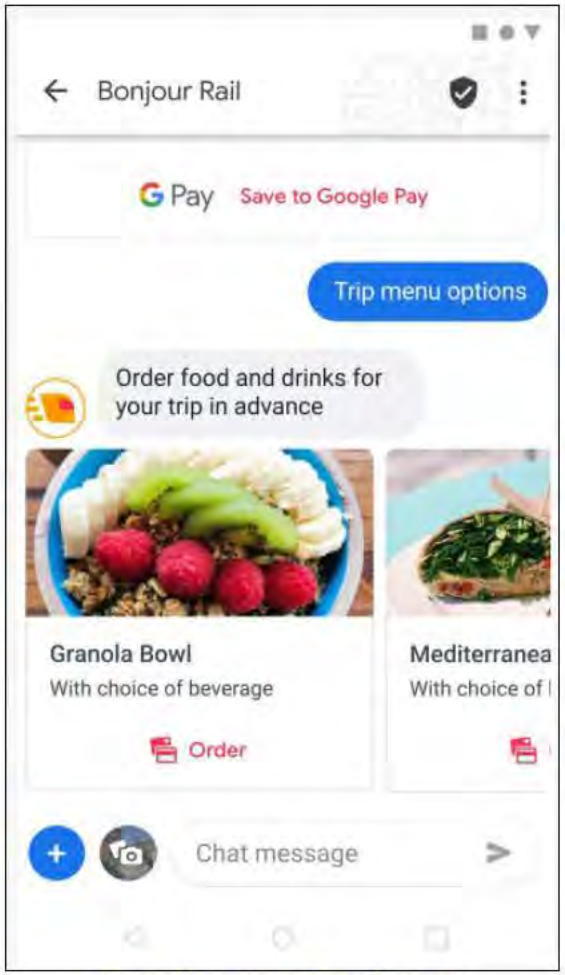
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/25/23 Service information is automatically downloaded after the triggered by the recipient's device.

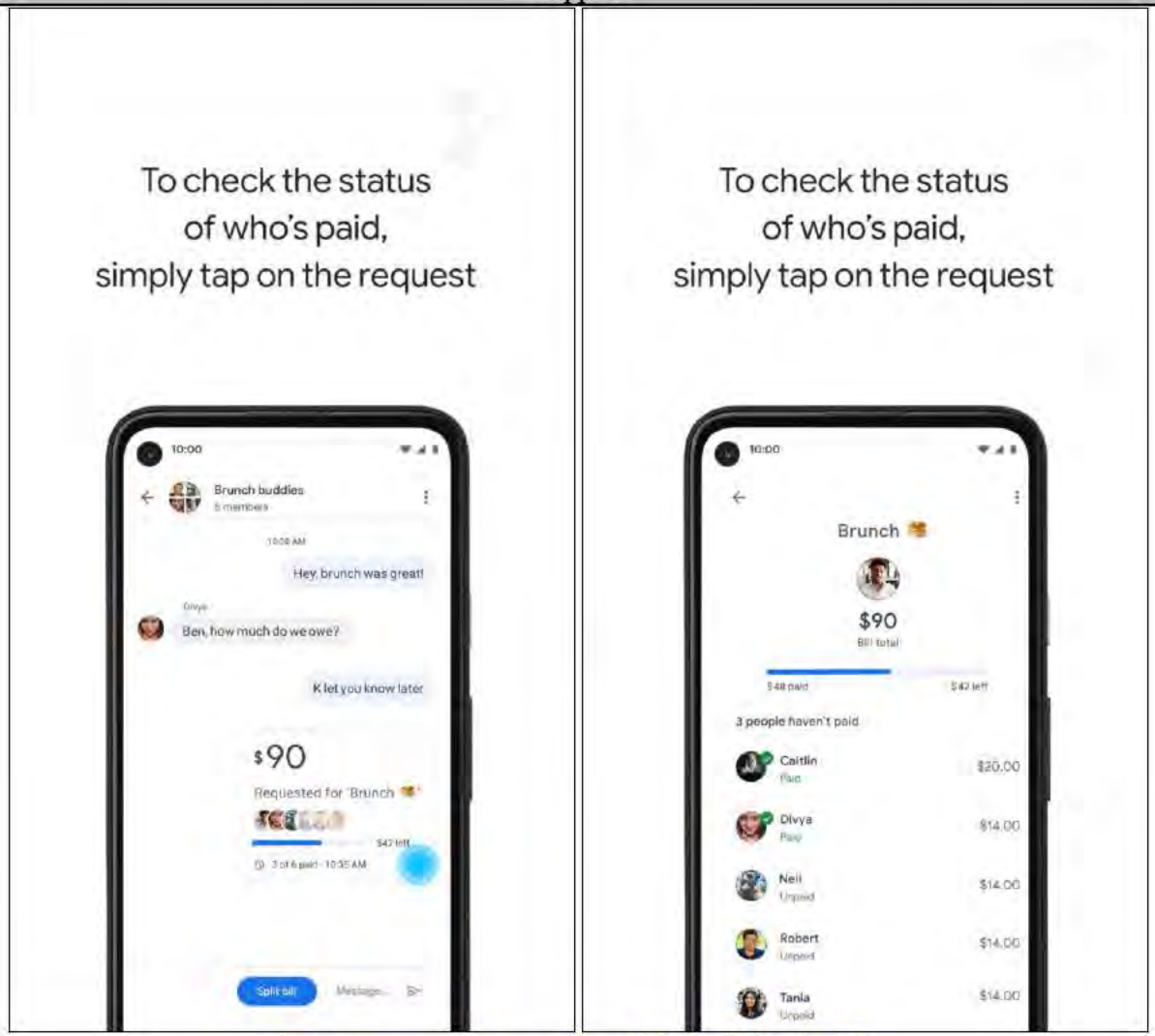
Claim	Support
	 https://messages.google.com/

Claim	Support
	Service information, such as payment updates, is automatically downloaded after the triggered by the recipient's device.   https://www.youtube.com/watch?v=mfUd8DkILcQ

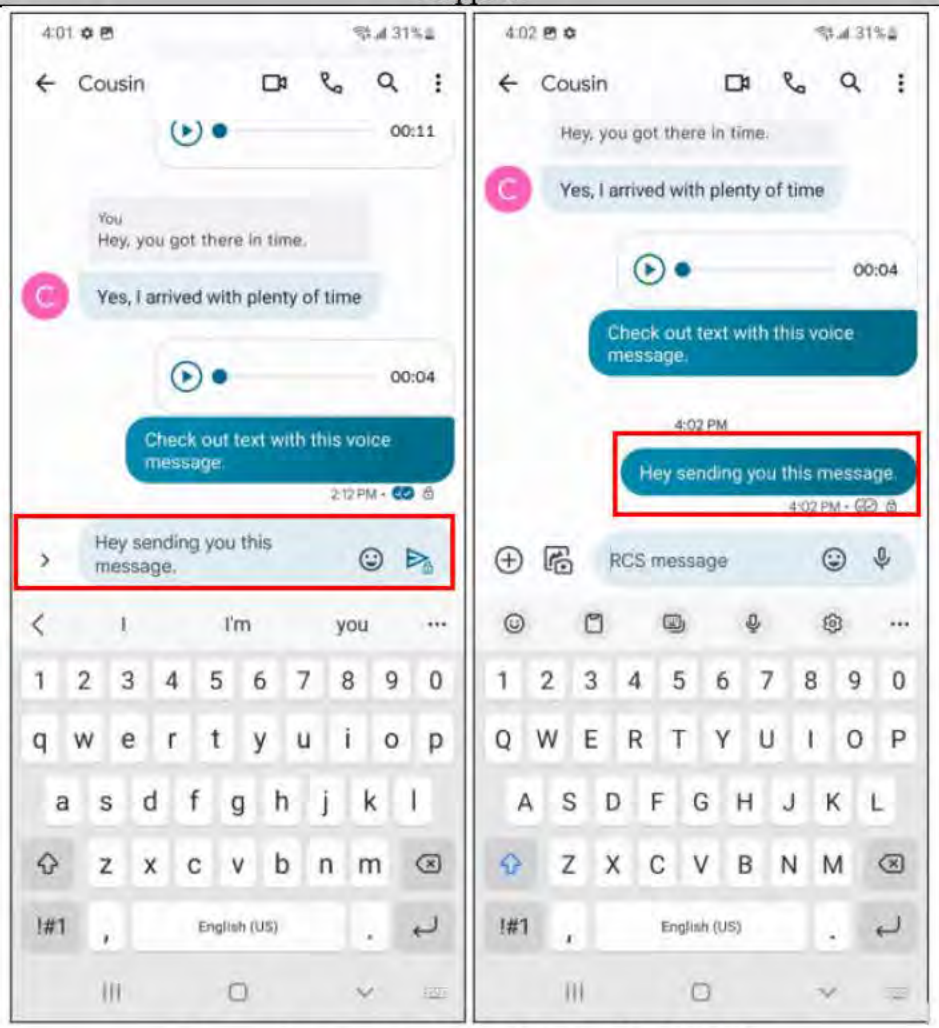
Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1E] whereby the interactive multimodal message triggered on the mobile device enables said recipient interaction.	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs a method whereby the interactive multimodal message triggered on the mobile device enables said recipient interaction. For example, the user of the sending device causes the recipient's device to automatically trigger the interactive multimodal message (e.g., to auto-download files) using a hypertext transfer protocol post. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code. *See* [1C].  Source: https://messages.google.com/

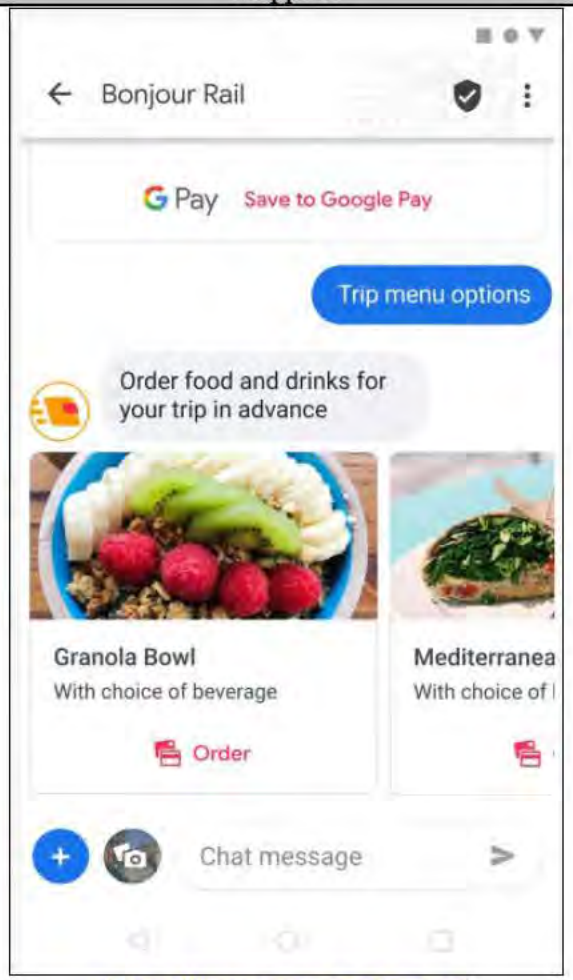
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/25/23

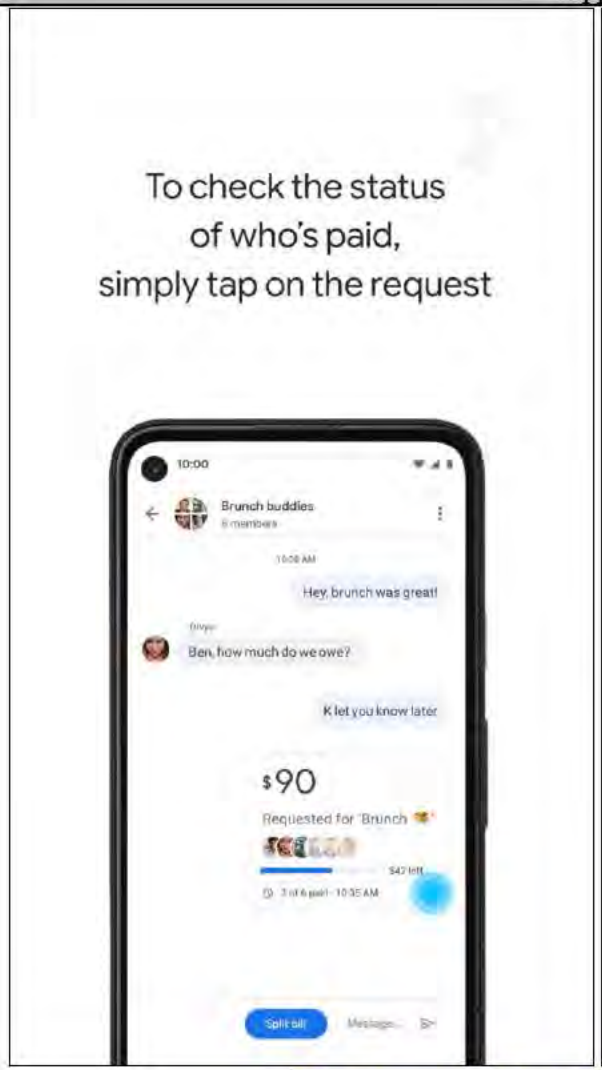
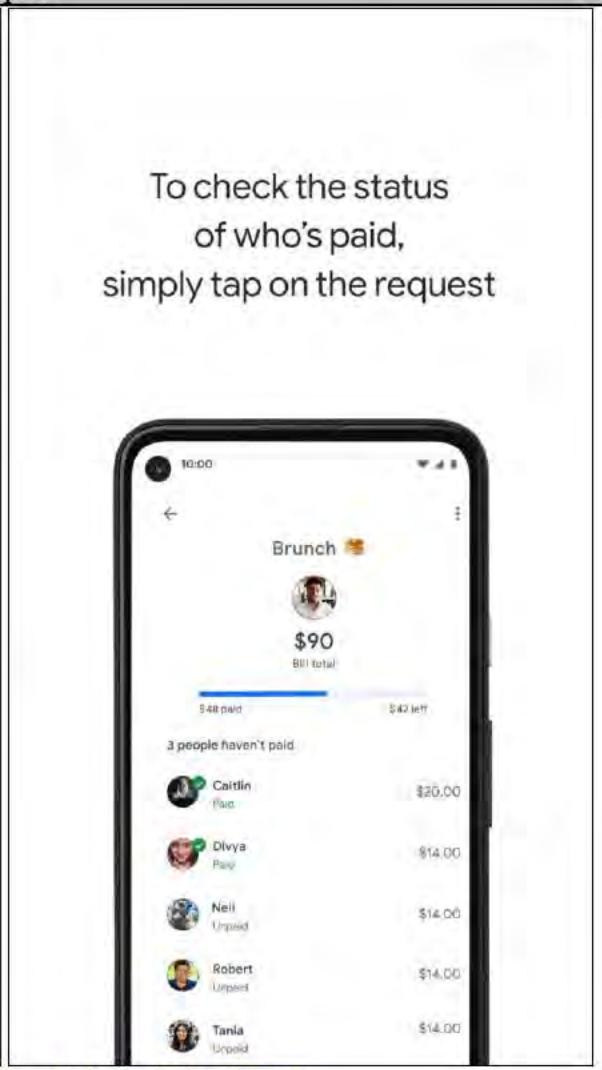
Claim	Support
	 https://messages.google.com/

Claim	Support
	 https://www.youtube.com/watch?v=mfUd8DkILcQ Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses.

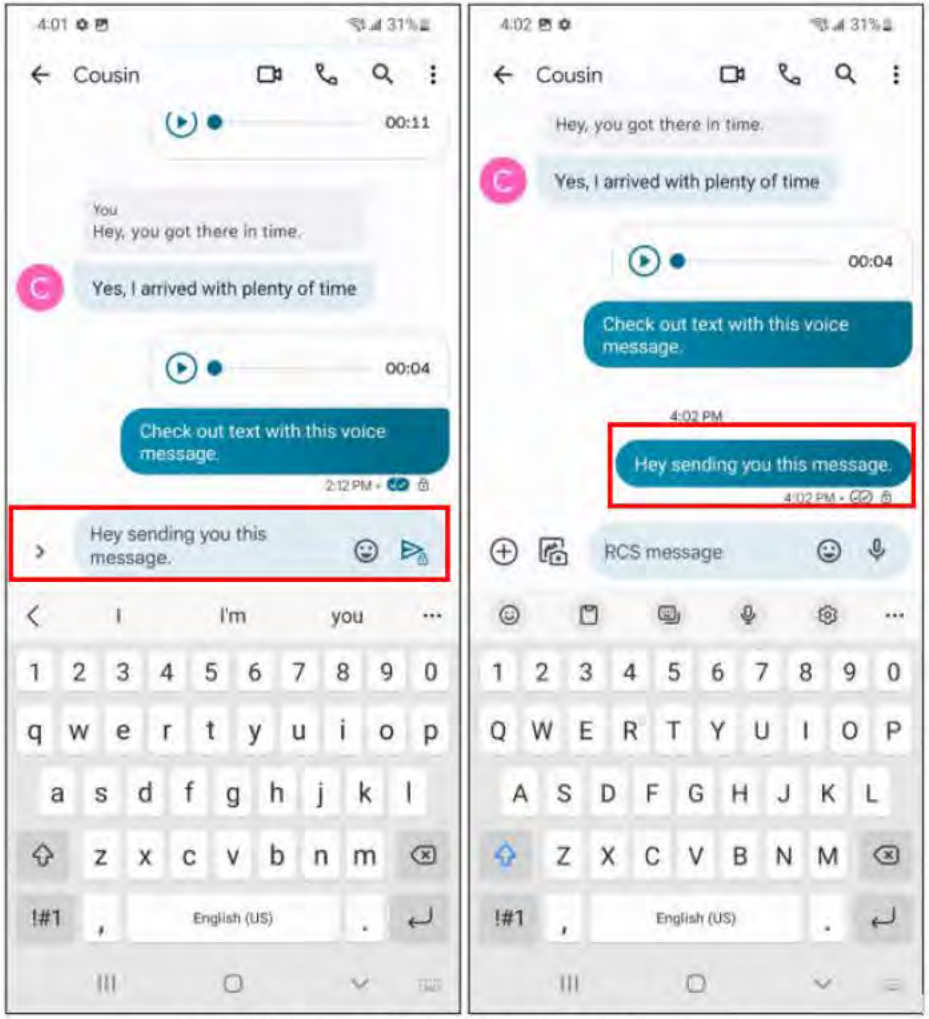
Claim	Support
	Plaintiff reserves the right to supplement after inspection of relevant source code.
[2] The method of claim 1, wherein the recipient triggers the interactive multimodal message using on or more of dual-tone multi frequency dialogs, prompts in voice extensible markup language, automated speech recognition, and a hypertext transfer protocol post.	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs the method of claim 1, wherein the recipient triggers the interactive multimodal message using on or more of dual-tone multi frequency dialogs, prompts in voice extensible markup language, automated speech recognition, and a hypertext transfer protocol post. *See* claim 1. For each of the examples, on information and belief, the recipient device automatically triggers the multimodal message using a hypertext transfer protocol.

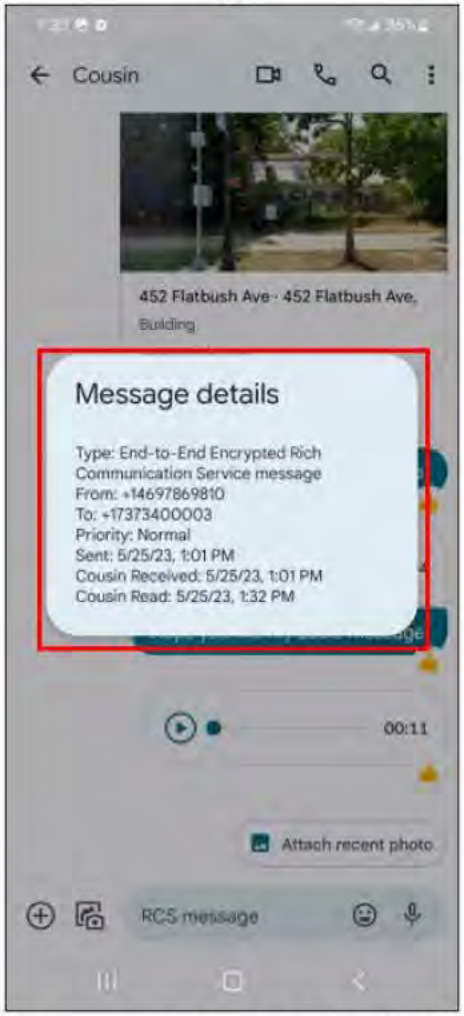
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/25/23

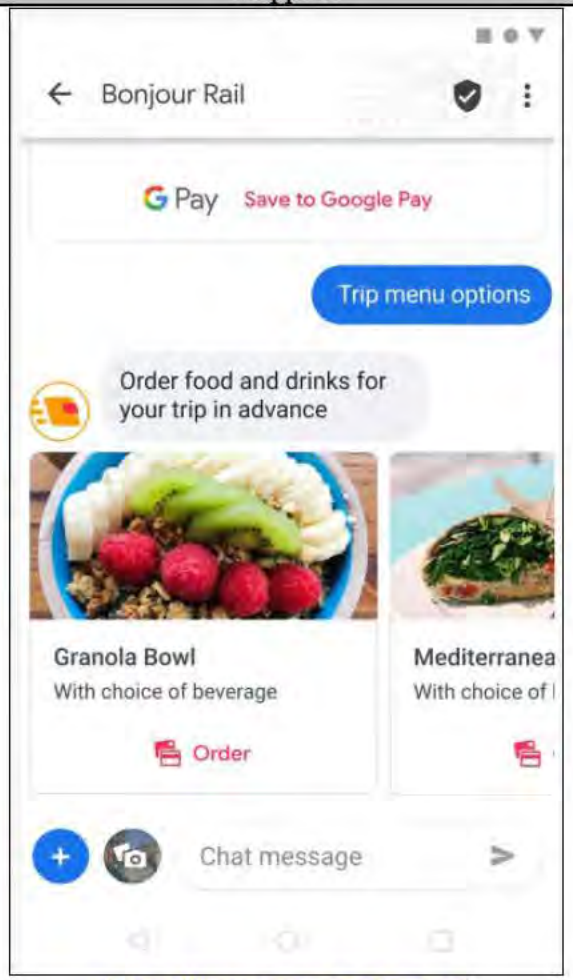
Claim	Support
	 https://messages.google.com/

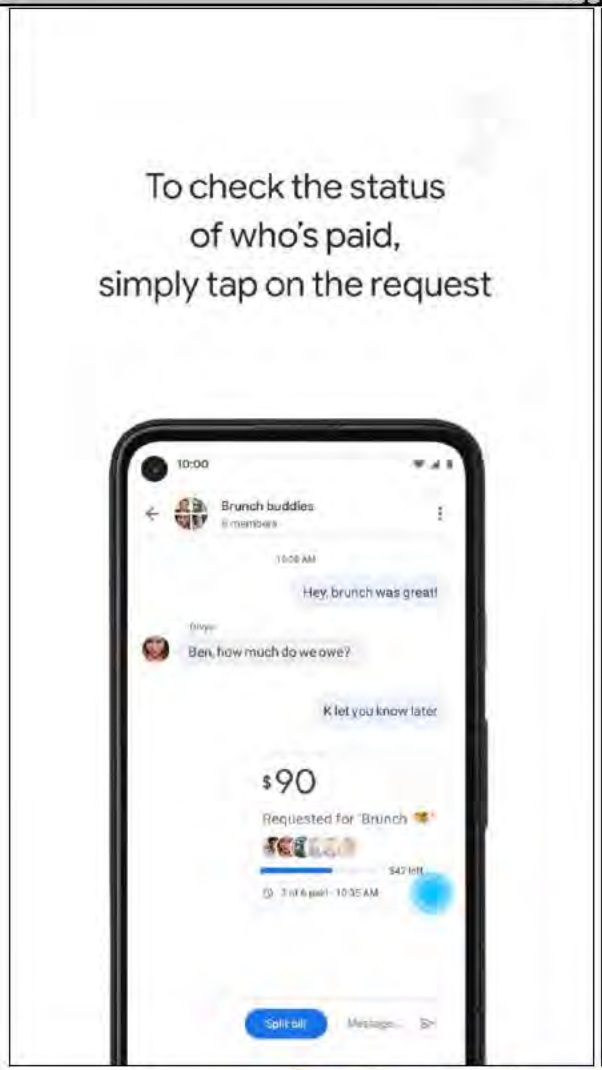
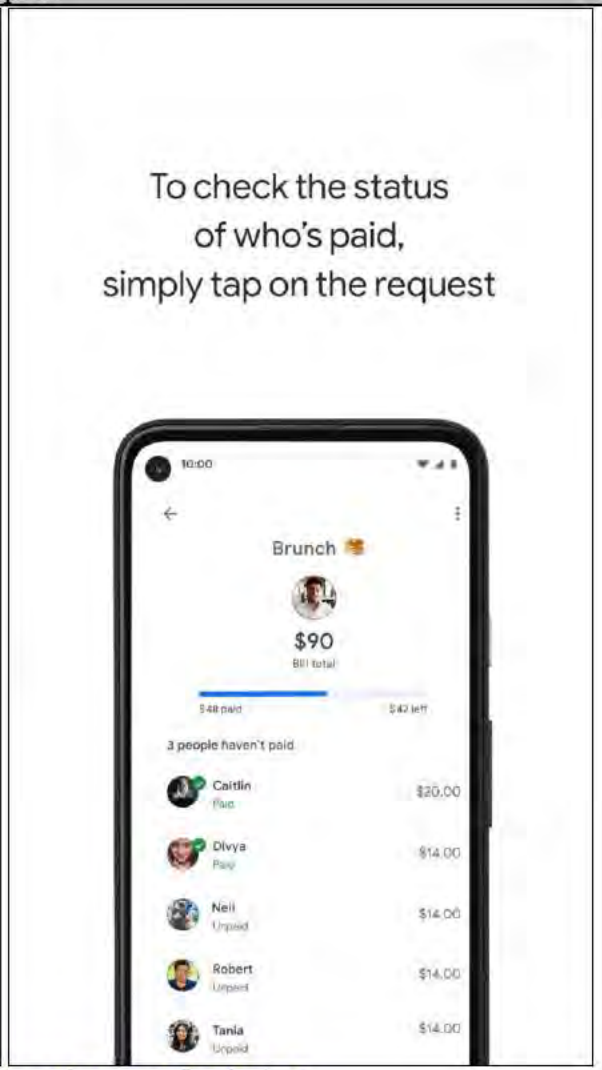
Claim	Support
	  https://www.youtube.com/watch?v=mfUd8DkILcQ

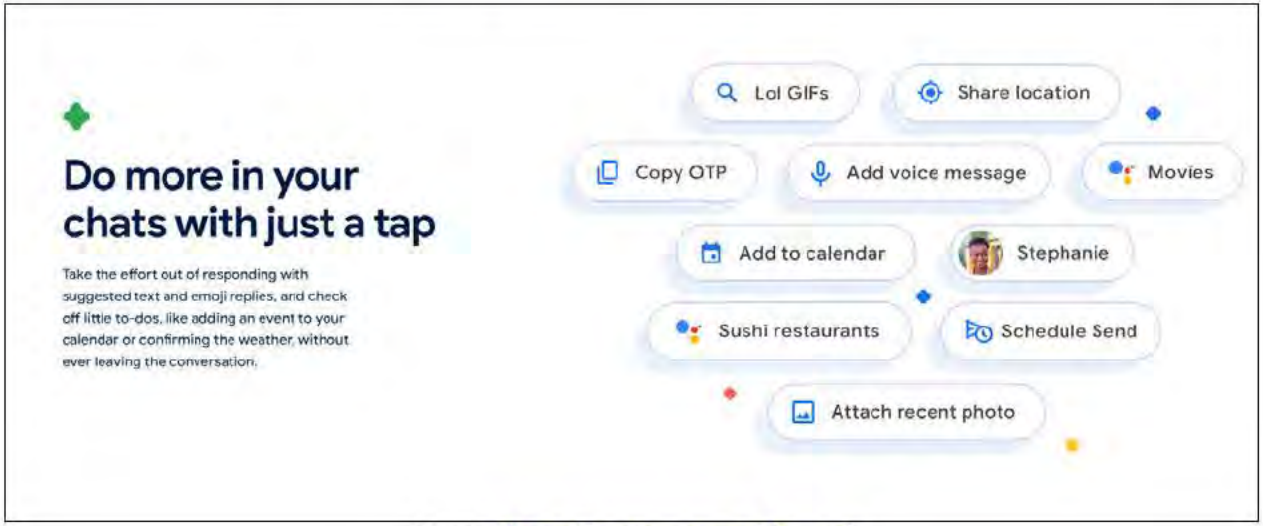
Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[4] The method 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.	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs 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. *See* claim 1. For example, the user of the sending device causes the recipient device to automatically trigger a multimodal message by activating a link in a text message (e.g., to automatically download files).

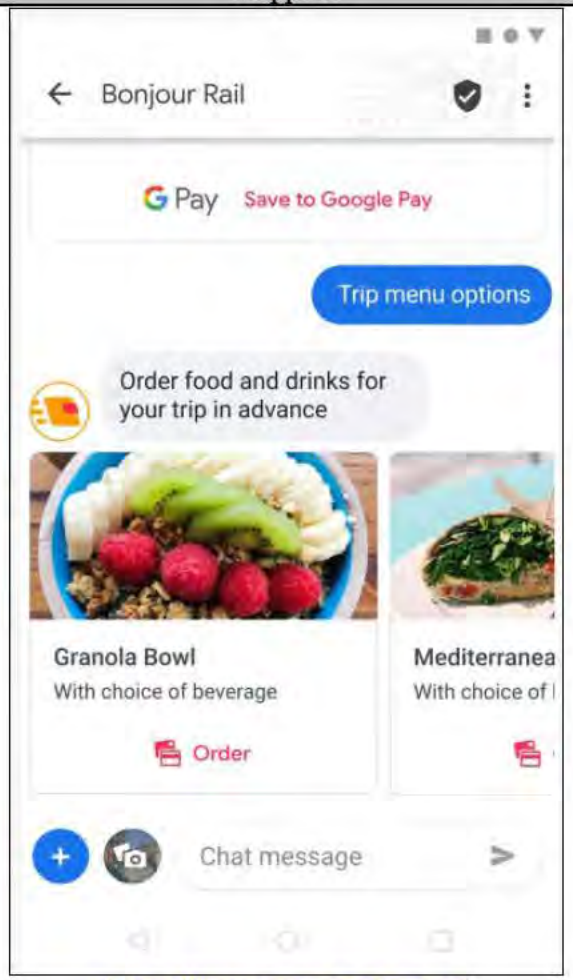
Claim	Support
	For example, the message is automatically marked as delivered when received by the recipient's device.  Source: Samsung Galaxy S21 Ultra 5G 05/25/23

Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/25/23

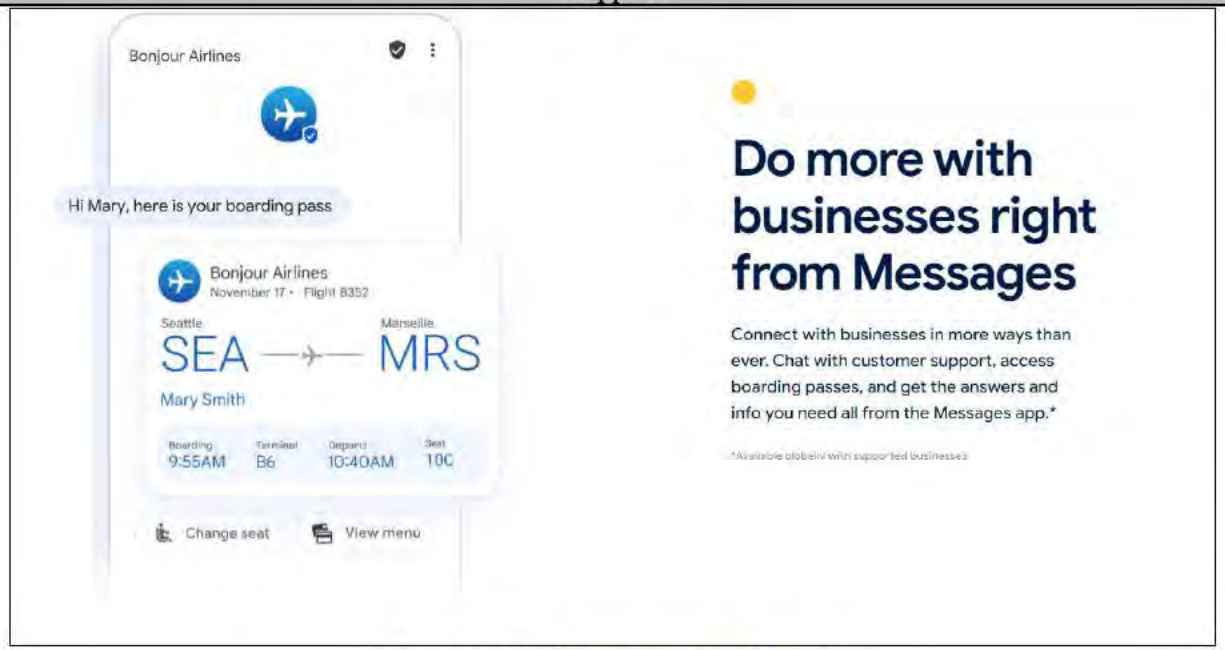
Claim	Support
	 https://messages.google.com/

Claim	Support
	  https://www.youtube.com/watch?v=mfUd8DkILcQ

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[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.	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs 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. *See* claim 1. For example, when messages are triggered by recipients and service information is transmitted, the recipient may, for example, read the message with a read receipt, order food, make a payment, react to a message, access a ticket, listen to an audio message, listen to a music link, and access location sharing.  Source: https://messages.google.com/

Claim	Support
	 https://messages.google.com/

Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/25/23

Claim	Support
	 Source: https://messages.google.com/

Claim	Support
	Send photos, videos, or voice messages in Messages Messages lets you send and receive photos, videos, audio files, or GIFs as multimedia over MMS. **Important:** • Some steps only work on Android 6.0 and up. Learn how to check your Android version. • To send or receive files, grant permission to Messages. Control your app permissions. **Send photos, videos, files, or GIFs** 1. Open the Messages app . 2. Open or start a conversation. 3. Tap Attach . 4. Select a file. 5. Tap Send . **Tip:** Photos or recordings that you take in Android Messages aren't saved on your device.

Claim	Support
	Send voice messages 1. Open the Messages app. 2. Open or start a conversation. 3. Press and hold Mic. 4. Record your message. 5. Tap Send. To cancel a voice message, swipe left on the chat or close the message. **Send your location** 1. Open the Messages app. 2. Open or start a conversation. 3. Tap Attach. > Location > Send. Source: https://support.google.com/messages/answer/6159880?hl=en Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[9] The method of claim 1, further comprising the step of forwarding the interactive multimodal	Each accused Samsung device, including the Galaxy S21 Ultra 5G performs the method of claim 1, further comprising the step of forwarding the interactive multimodal message to a plurality of second recipients simultaneously. *See* claim 1. For example, the user of the sending device causes the Accused Products to forward interactive multimodal messages in the Messages application to multiple other users simultaneously.

Claim	Support
message to a plurality of second recipients simultaneously.	 Source: Samsung Galaxy S21 Ultra 5G

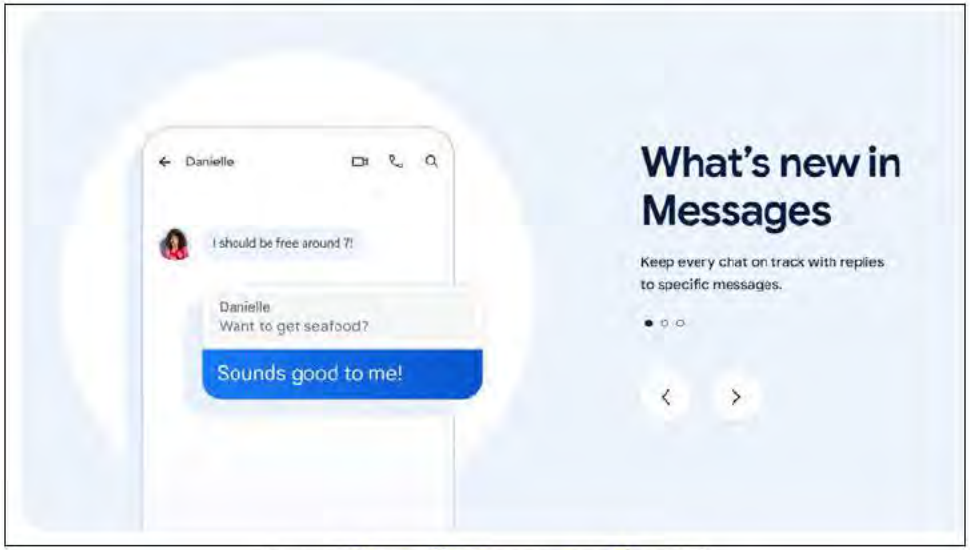
Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

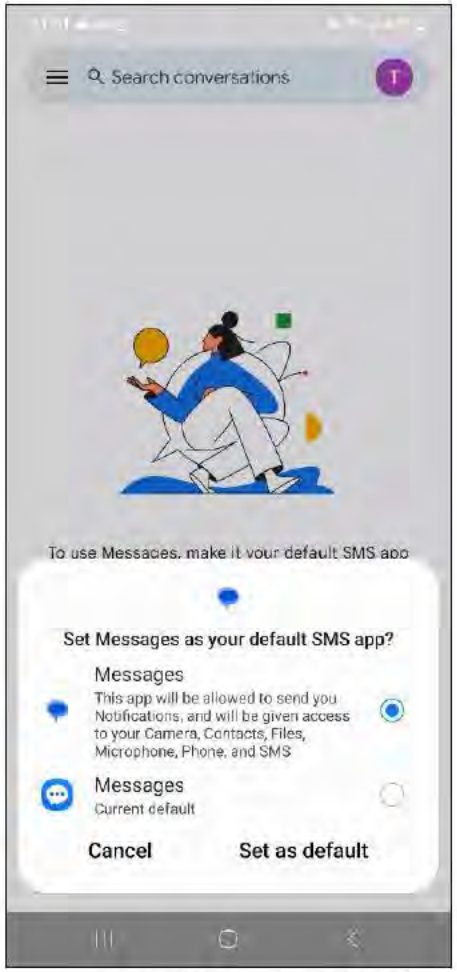
Appendix B - Claim Chart for US Patent No. 8,107,978 Against Accused Samsung Galaxy S22+

In these Infringement Contentions, Multimodal Media LLC ("Multimodal") contends that at least the following claims of U.S. Patent No. 8,107,978 ("'978 patent") identified below are infringed by Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. ("Defendants" or "Samsung") devices. Multimodal does not concede that any claims of the '978 patent that are not listed below are not infringed by the identified products. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Multimodal from citing or relying on additional documents, information, source code, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Samsung's products, internal documentation, source code, and/or testimony from relevant witnesses may more fully and accurately describe the infringing features of its accused products. Accordingly, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions once such additional information is made available to Multimodal. Furthermore, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions: as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Defendants, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

Representativeness: The Samsung Galaxy S21 Ultra 5G phone depicted in this chart is believed to be representative of other Samsung mobile devices that operate on the Android OS v.10 or later, including the Galaxy S10, Galaxy S10+, Galaxy A50, Galaxy A51, Galaxy S9, Galaxy Note10+, Galaxy Note9, Galaxy S10e, Galaxy S9+, Galaxy Note10, Galaxy A71, Galaxy A20, Galaxy A10, Galaxy A30, Galaxy A70, Galaxy S10 5G, Galaxy A7 (2018), Galaxy A30s, Galaxy A10s, Galaxy A20s, Galaxy A50s, Galaxy J6, Galaxy A01, Galaxy A80, Galaxy M20, Galaxy A40, Galaxy M30s, Galaxy A6 (2018), Galaxy M30, Galaxy Note10+ 5G, Galaxy A90 5G, Galaxy Note10 5G, Galaxy A20e, Galaxy M40, Galaxy A10e, Galaxy Fold, Galaxy A70s, Galaxy A60, Galaxy M10s, Galaxy Fold 5G, Galaxy Xcover 4s, Galaxy S20 FE 5G, Galaxy A12, Galaxy S20, Galaxy Note20 Ultra 5G, Galaxy S20 Ultra 5G, Galaxy A21s, Galaxy A31, Galaxy Note20, Galaxy S20+, Galaxy A11, Galaxy M31, Galaxy S20 FE, Galaxy S20 5G, Galaxy Z Fold2 5G, Galaxy M51, Galaxy M21, Galaxy A02s, Galaxy S20 Ultra, Galaxy S20+ 5G, Galaxy Note10 Lite, Galaxy M11, Galaxy Note20 Ultra, Galaxy A21, Galaxy S10 Lite, Galaxy A42 5G, Galaxy Z Flip, Galaxy M31s, Galaxy Note20 5G, Galaxy A01 Core, Galaxy A51 5G, Galaxy A71 5G, Galaxy M01, Galaxy A41, Galaxy F41, Galaxy M01 Core, Galaxy Xcover Pro, Galaxy Z Flip 5G, Galaxy M01s, Galaxy A Quantum, Galaxy M21s, Galaxy A71 5G UW, Galaxy A51 5G UW, Galaxy S20 5G UW, Galaxy M31 Prime, Galaxy S21 5G, Galaxy A32, Galaxy A52, Galaxy A03, Galaxy A52s 5G, Galaxy A03s, Galaxy A03 Core, Galaxy A22, Galaxy S21+ 5G, Galaxy A72, Galaxy A22 5G, Galaxy A32 5G, Galaxy A13 5G, Galaxy M32, Galaxy M52 5G, Galaxy A02, Galaxy Z Flip3 5G, Galaxy A52 5G, Galaxy M12, Galaxy Z Fold3 5G, Galaxy F22, Galaxy F62, Galaxy M02, Galaxy M32 5G, Galaxy Xcover 5, Galaxy M62, Galaxy F12, Galaxy M02s, Galaxy M22, Galaxy A12 Nacho, Galaxy F42 5G, Galaxy M42 5G, Galaxy Quantum 2, Galaxy M21 2021, Galaxy F02s, Galaxy F52 5G, Galaxy A13, Galaxy S21 FE 5G, Galaxy S22 Ultra 5G, Galaxy A23, Galaxy A53 5G, Galaxy A73 5G, Galaxy S22 5G, Galaxy A04, Galaxy A33 5G, Galaxy A04s, Galaxy A23 5G, Galaxy A04e, Galaxy M33, Galaxy Z Fold4, Galaxy S22+ 5G, Galaxy Z Flip4, Galaxy F23, Galaxy F13, Galaxy M53, Galaxy M13, Galaxy M23, Galaxy M04, Galaxy Xcover6 Pro, Galaxy M13 5G, Galaxy A13 (SM-A137), Galaxy S20 FE 2022, Galaxy A54, Galaxy S23 Ultra, Galaxy A34, Galaxy A14, Galaxy S23, Galaxy A24 4G, Galaxy A14 5G, Galaxy S23+, Galaxy M14, Galaxy M54, Galaxy F14, Galaxy F04, Galaxy Tab A8 10.5 (2021), Galaxy Tab A7 Lite, Galaxy Tab S8, Galaxy Tab S6 Lite, Galaxy Tab S7 FE, Galaxy Tab S8 Ultra, Galaxy Tab S6 Lite (2022), Galaxy Tab A7 10.4 (2020), Galaxy Tab S7, Galaxy Tab S8+, Galaxy Tab A 10.1 (2019), Galaxy Tab S9 Ultra, Galaxy Tab A 8.0 (2019), Galaxy Tab S6, Galaxy Tab S7+, Galaxy Tab S5e, Galaxy Tab A7 10.4 (2022), Galaxy Tab Active4 Pro, Galaxy Tab S4 10.5, Galaxy Tab Active3, Galaxy Tab A 8.0 & S Pen (2019), Galaxy Tab A 10.5, Galaxy Tab A 8.4 (2020), and Galaxy Tab S6 5G (the "Accused Products"). Based on publicly available information, Multimodal believes that the Samsung Galaxy S21 depicted herein and other Samsung mobile phones that operate on the Android OS share substantially the same structure and functionality with respect to the components

which are relevant to infringement. Should discovery yield documents or information demonstrating that Defendants sell other infringing devices, Multimodal reserves the right to amend its infringement contentions to include a chart mapping the claims of the '978 Patent to the structure and function of the newly discovered devices.

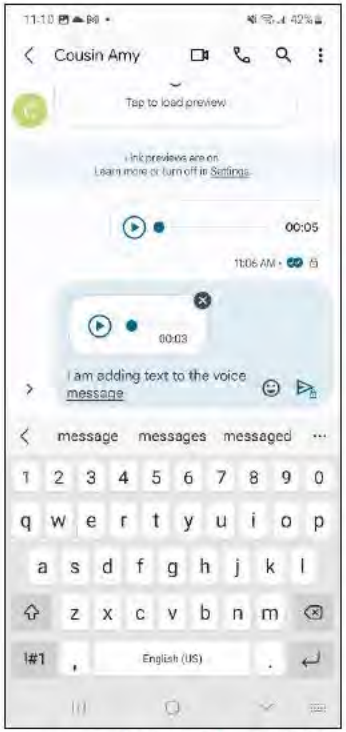
Claim	Support
10[P]. A system for voice short message service messaging, comprising: 10[A]. a client application on a mobile device, wherein said client application integrates voice content to a text message created by a user using methods of recipient addressing as used by text short message service messaging;	Each accused Samsung device, including the Galaxy S22+, includes a system for voice short message service messaging, comprising a client application on a mobile device, wherein said client application integrates voice content to a text message created by a user using methods of recipient addressing as used by text short message service messaging. Samsung directly infringes this claim by making, using, selling, offering for sale, and/or importing accused products into the United States. Samsung also indirectly infringes this claim by inducing others, including customers, to make and use the claimed system. For example, the user of the mobile device causes the Accused Products, Android-based mobile devices, to send messages having multiple modes and interactive content. For example, the user of the mobile device causes the Accused Products to create interactive multimodal messages in the Google Messages application, which is a heavily featured and built-in app of the Android platform.  Source: https://messages.google.com/

Claim	Support
	Users are asked to set a default messaging application. Below is an example of a user selecting the Google Messages App as the default application. As an additional note, the latest Samsung Galaxy S23 Series has set the messages by Google to default.  Source: Galaxy S22+ 05/25/23

Claim	Support
	Users then can record and send audio messages and text messages to users, both those saved in a contacts list and by direct address (phone number, email, etc.). On the Galaxy S22+, this is done by speaking while holding the microphone button next to the text input bar, and then including a text and/or graphics message associated with the audio. Source: Galaxy S22+ 05/25/23

Claim	Support
	 Source: Galaxy S22+ 05/25/23

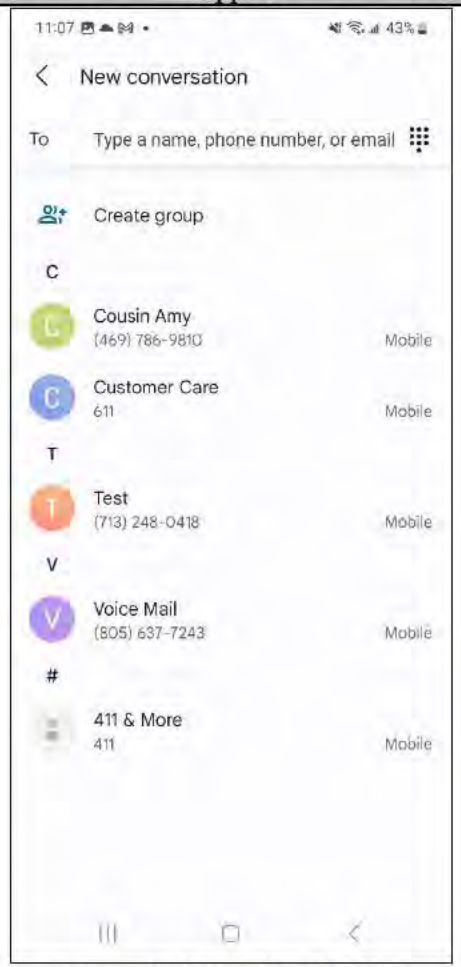
Claim	Support
	 Source: Galaxy S22+ 05/25/23

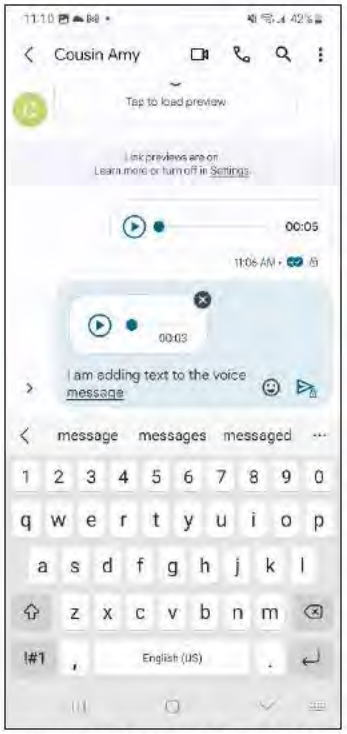
Claim	Support
	Along with the use of a microphone, users can also add text, thereby allowing the combination of text and voice in the same message, as seen below.  Source: Galaxy S22+ 05/25/23 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
10[B]. a memory storage means on said mobile device for storing a list of addresses of recipients;	Each accused Samsung device, including the Galaxy S22+, includes a memory storage means on said mobile device for storing a list of addresses of recipients. For example, the user of the mobile device causes the Accused Products to store a list of addresses of recipients. For example, the Galaxy S22+ includes at least 128GB storage as well as 8GB RAM memory. Network & Connectivity 5G 5G Non-Standalone (NSA), Standalone (SA), Sub6 / mmWave LTE Enhanced 4x4 MIMO, Up to 7CA, LTE Cat.20 Up to 2.0Gbps Download / Up to 200Mbps Upload Wi-Fi Wi-Fi 802.11 a/b/g/n/ac/ax 2.4G+5GHz+6GHz, HE160, MIMO, 1024-QAM Up to 2.4Gbps Download / Up to 2.4Gbps Upload Bluetooth Bluetooth® v 5.2, USB type-C, NFC, Location(GPS, Galileo, Glonass, BeiDou) Ultra Wide Band *Requires optimal connection. Actual speed may vary depending on country, carrier and user environment. *The bandwidths supported by the device may vary depending on the region or service provider. *Download and upload speeds reaching up to 2.4Gbps only available with Wi-Fi 6E. Wi-Fi 6E only supported on Galaxy S22 Ultra and S22+. Galaxy S22 has Wi-Fi 6. *Galileo and BeiDou coverage may be limited. BeiDou may not be available for certain countries. *Ultra Wide Band is only available on Galaxy S22 Ultra and S22+. AP 4nm 64-bit Octa-Core Processor * 2.80GHz (Maximum Clock Speed) + 2.5GHz + 1.8GHz 4nm 64-bit Octa-Core Processor * 2.99GHz (Maximum Clock Speed) + 2.4GHz + 1.7GHz *May vary depending on country and carrier.

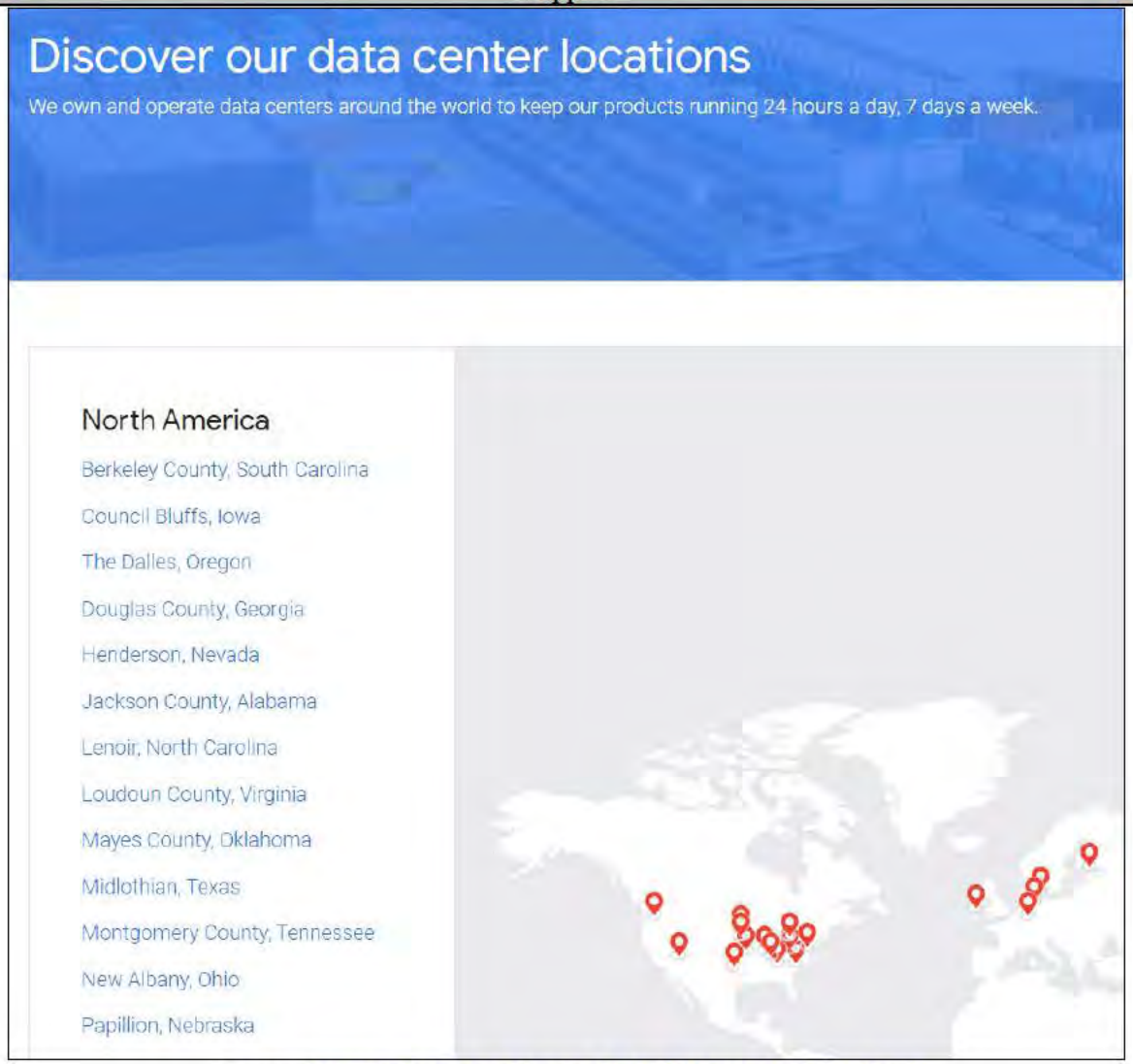
Claim	Support
	Memory **Galaxy S22** 8GB RAM (LPDDR5) with 256GB internal storage 8GB RAM (LPDDR5) with 128GB internal storage **Galaxy S22 Ultra** 12GB RAM (LPDDR5) with 1TB internal storage 12GB RAM (LPDDR5) with 512GB internal storage 12GB RAM (LPDDR5) with 256GB internal storage 8GB RAM (LPDDR5) with 128GB internal storage *Galaxy S22 Ultra 1TB storage option available only on Samsung.com. *Actual storage space may vary by country, model, file size and format. **Galaxy S22+** 8GB RAM (LPDDR5) with 256GB internal storage 8GB RAM (LPDDR5) with 128GB internal storage Source: https://www.samsung.com/global/galaxy/galaxy-s22-ultra/specs/ For example, the Accused Products, including the Galaxy S22+ include storage for an address list. Below are the instructions included in the product manual for adding contacts to the address list (contacts list).

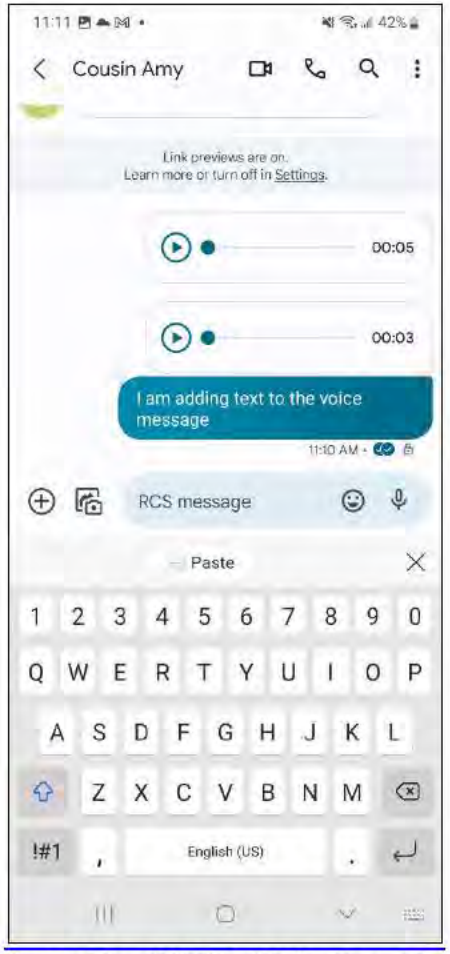
Claim	Support
	Create a contact 1. From **Contacts**, tap **Create contact**. 2. Enter details for the contact, and then tap **Save**. **Edit a contact** When editing a contact, you can tap a field and change or delete information, or you can add more fields to the contact's list of information. 1. From **Contacts**, tap a contact. 2. Tap **Edit**. 3. Tap any of the fields to add, change, or delete information. 4. Tap **Save**. **Favorites** When you mark contacts as favorites, they are grouped at the top of your contact list and easily accessible from other apps. 1. From **Contacts**, tap a contact. 2. Tap **Favorites** to mark the contact as a favorite. • To remove the contact from Favorites, tap **Favorites**. **Share a contact** Share a contact with others by using various sharing methods and services. 1. From **Contacts**, tap a contact. 2. Tap **Share**. 3. Tap either **vCard file (VCF)** or **Text**. 4. Choose a sharing method and follow the prompts. **TIP** When viewing a contact, tap **More** > **QR code** to quickly share the information with friends or family. The QR code automatically updates when you change the contact information fields. Source: Galaxy S22+ User Manual, p. 86.

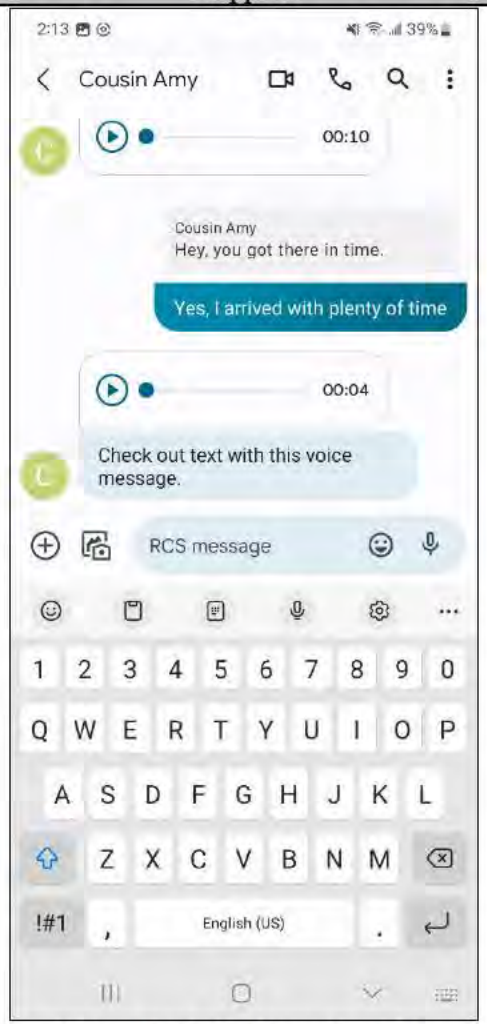
Claim	Support
	 Source: Galaxy S22+ 05/25/23 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

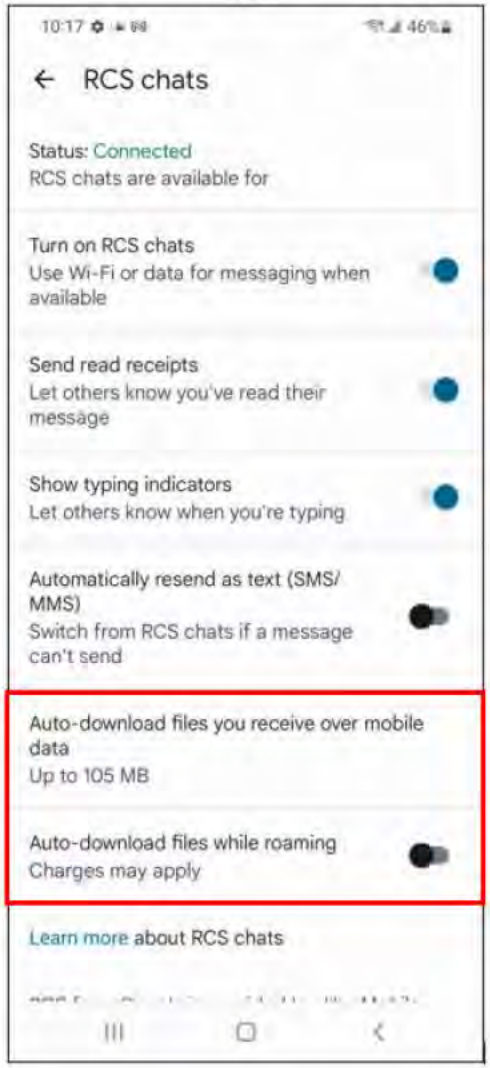
Claim	Support
10[C]. a user interface on the mobile device for said user to input voice messages and text messages; and	Each accused Samsung device, including the Galaxy S22+, includes a user interface on the mobile device for said user to input voice messages and text messages. *See* claim 10[A]. For example, the Accused Products, including the Galaxy S22+, include a user interface to input voice and text messages.  Source: Galaxy S22+ 05/25/23
10[D]. a server for remotely recording and storing said	Each accused Samsung device, including the Galaxy S22+, includes a server for remotely recording and storing said voice messages of the user, wherein said server is configured to provide access to said recipient for listening to said recorded voice message.

Claim	Support
voice messages of the user, wherein said server is configured to provide access to said recipient for listening to said recorded voice message; and	Users of the accused Samsung devices, including Samsung itself during testing and qualification in the United States, "use" the accused system by placing Samsung devices into service by connecting to the accused server. Alternatively, users of the accused Samsung devices, including Samsung itself during testing and qualification in the United States, "make" the accused system by assembling it through connecting Samsung devices to servers. Samsung and its users derive benefit from their use of the accused server because, using only SMS, it enables the user to notify the recipient that the user has sent a voice message to the recipient – not requiring a data connection – allowing the user's message to reach the recipient at an appropriate time. *See* claim 10[A]. For example, using Google Messages, the user of the mobile device causes voice messages to be automatically recorded and stored on one or more servers, including Google servers, which are accessed by recipients for listening to the voice messages.

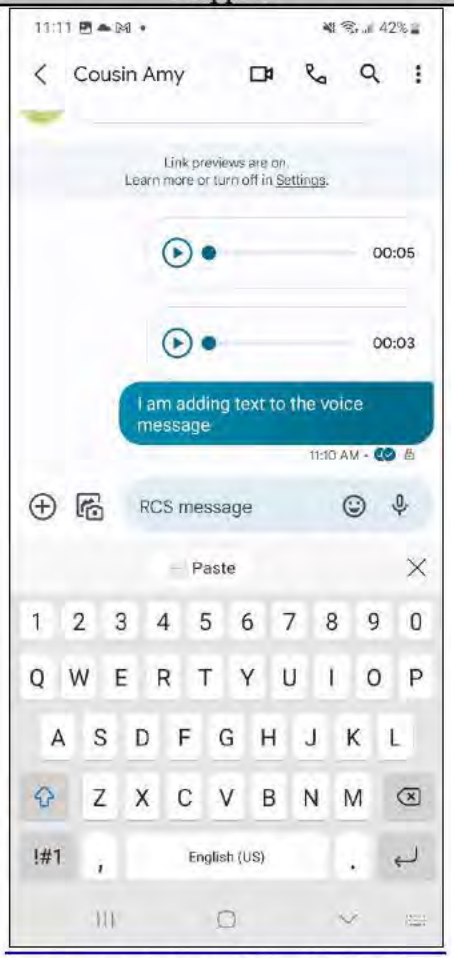
Claim	Support
	 Source: https://www.google.com/about/datacenters/locations/

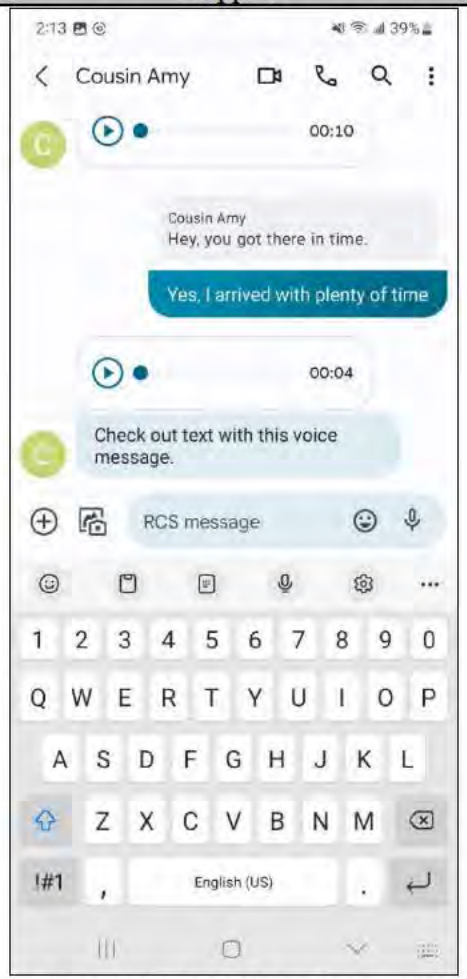
Claim	Support
	Voice messages are stored for recipient listening, see below an example of sending and receiving a voice/text message.  Source: Galaxy S22+ 05/25/23 (Voice/Text Message Sent)

Claim	Support
	 Source: Galaxy S22+, 05/25/23 (Voice/Text Message Received)

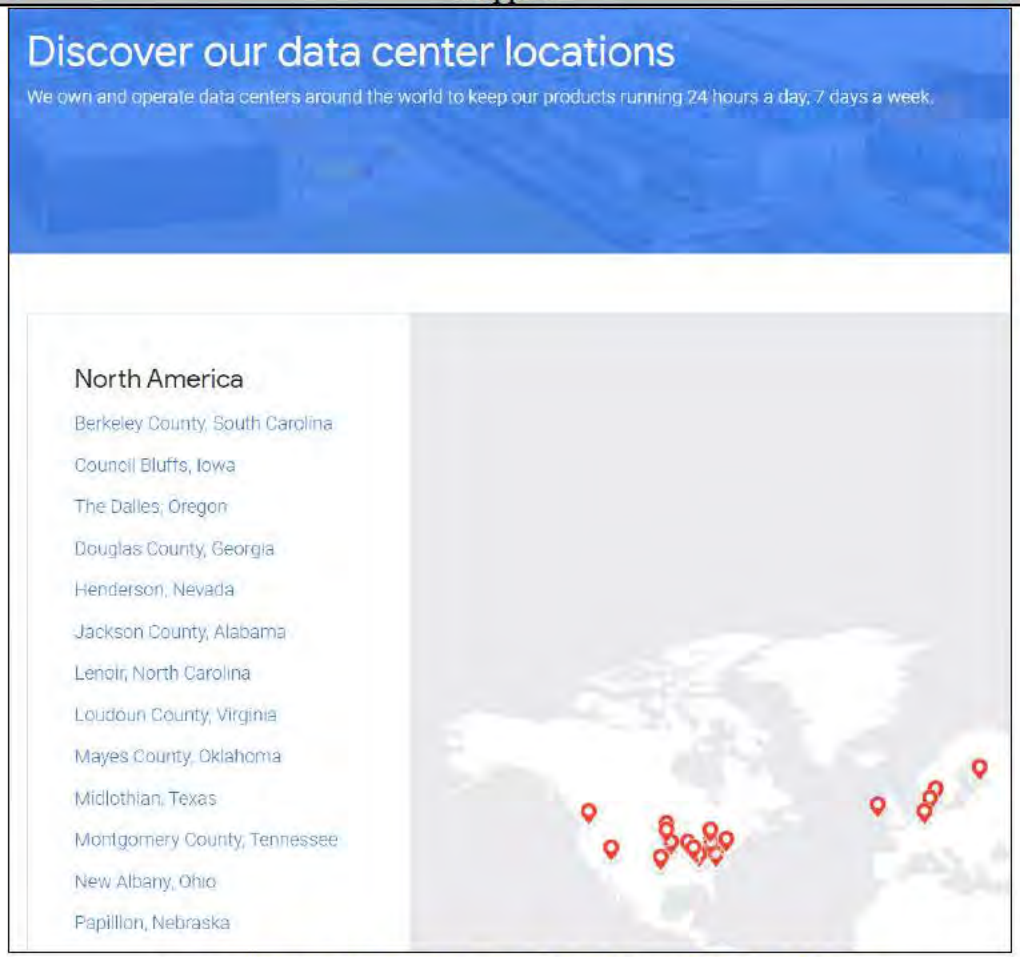
Claim	Support
	

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
10[E]. said client application for transmitting a voice message notification with an addressed text message to said recipients.	Each accused Samsung device, including the Galaxy S22+, includes said client application for transmitting a voice message notification with an addressed text message to said recipients. For example, using Google Messages, the user of the mobile device causes the Accused Products to automatically transmit a voice message notification with a text message to recipients. *See* claim 10[A]. Below is an example of text and voice input in the same message successfully transmitted to a receiving device (Cousin Amy).

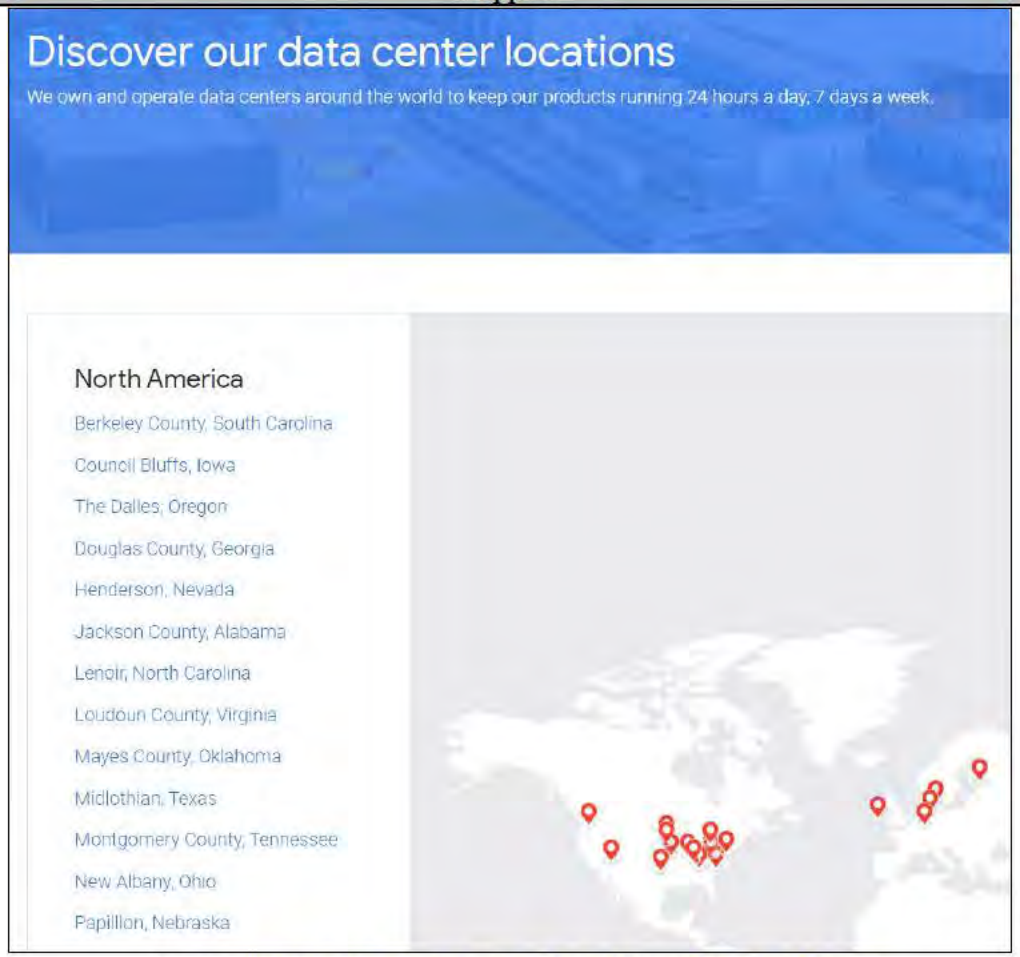
Claim	Support
	 Source: Galaxy S22+ 05/25/23 Below is an example of text and voice inputs in the same message successfully received from a transmitting device (Cousin Amy).

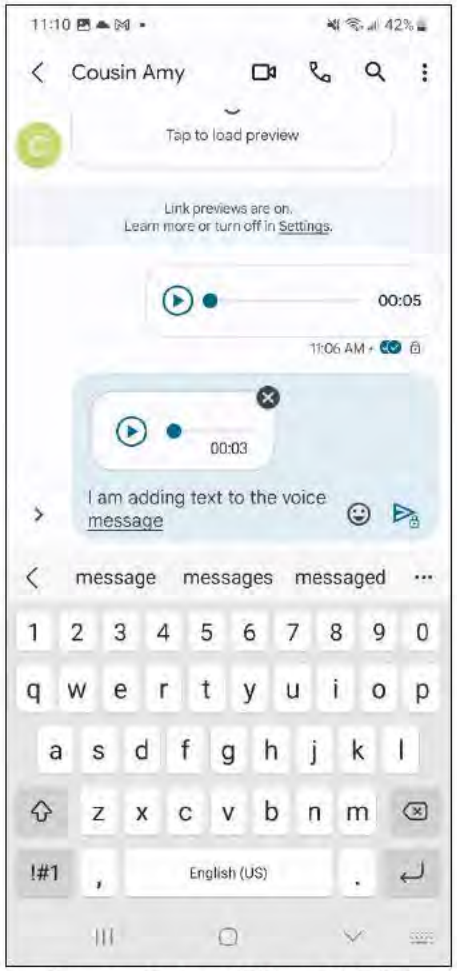
Claim	Support
	 Source: Galaxy S22+, 05/25/23 (Voice/Text Message Received) Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

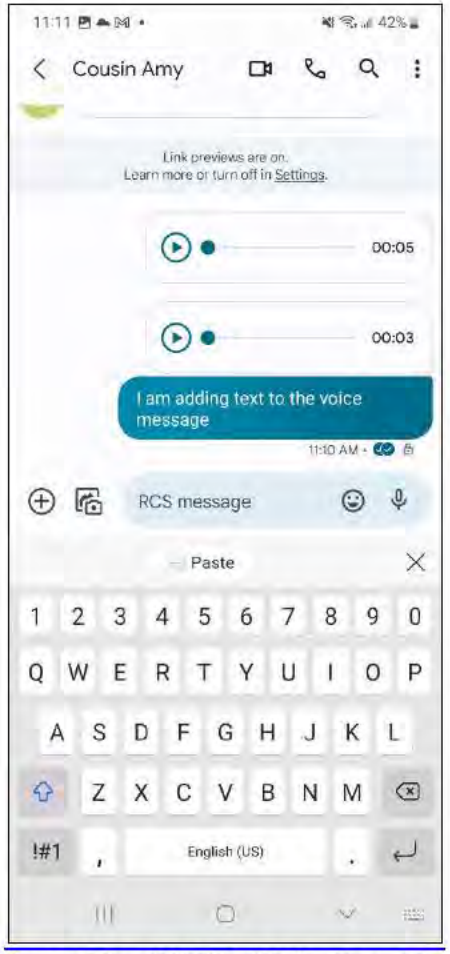
Claim	Support
11. The system of claim 10, wherein said server comprises a first server for storing the voice messages of the user.	Each accused Samsung device, including the Galaxy S22+, includes the system of claim 10, wherein said server comprises a first server for storing the voice messages of the user. Users of the accused Samsung devices, including Samsung itself during testing and qualification in the United States, "use" the accused system by placing Samsung devices into service by connecting to the accused server. Alternatively, users of the accused Samsung devices, including Samsung itself during testing and qualification in the United States, "make" the accused system by assembling it through connecting Samsung devices to servers. Samsung and its users derive benefit from their use of the first server because it stores the user's voice messages until the recipient can retrieve them at an appropriate time. *See* claim 10. For example, using Google Messages, the user of the mobile device causes user voice messages to automatically be stored on one or more servers, including Google servers. For example, Google has servers for storing Messages data

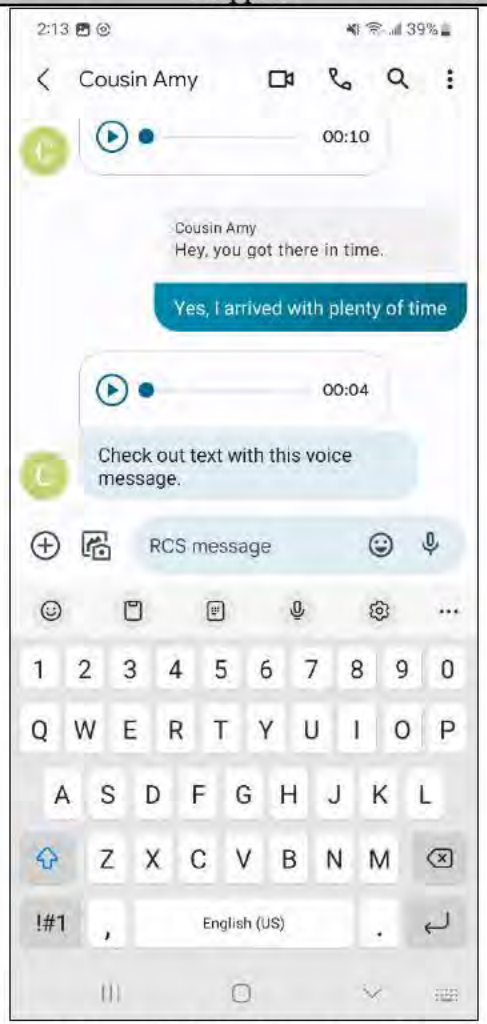
Claim	Support
	 Source: https://www.google.com/about/datacenters/locations/ Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

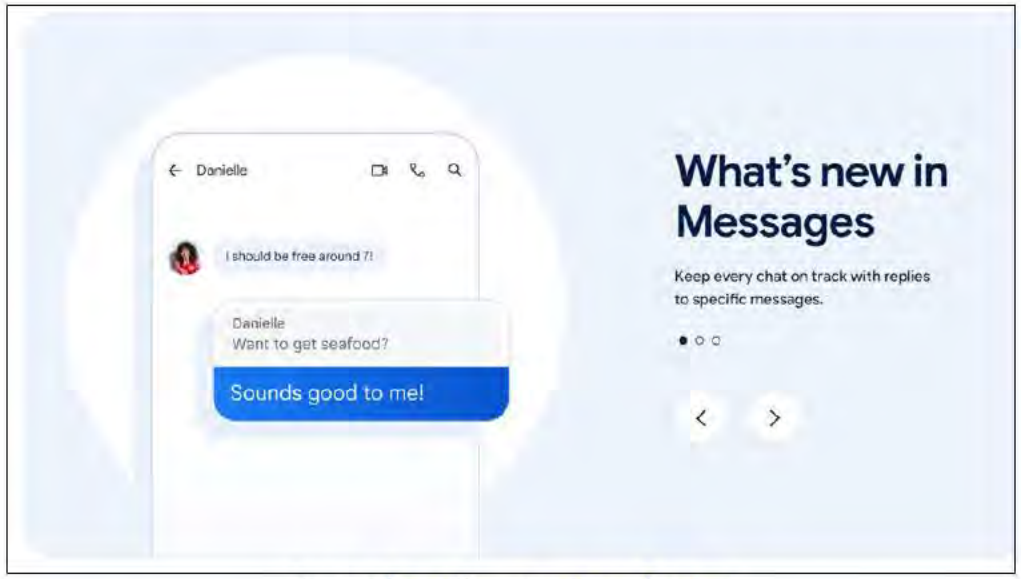
Claim	Support
12. The system of claim 10, wherein said server comprises a second server for transmitting said voice message notification with said addressed text message to the recipients.	Each accused Samsung device, including the Galaxy S22+, includes the system of claim 10, wherein said server comprises a second server for transmitting said voice message notification with said addressed text message to the recipients. Users of the accused Samsung devices, including Samsung itself during testing and qualification in the United States, "use" the accused system by placing Samsung devices into service by connecting to the accused server. Alternatively, users of the accused Samsung devices, including Samsung itself during testing and qualification in the United States, "make" the accused system by assembling it through connecting Samsung devices to servers. Samsung and its users derive benefit from their use of the second server because, using only SMS, it enables the user to notify the recipient that the user has sent a voice message to the recipient – not requiring a data connection – allowing the user's message to reach the recipient at an appropriate time. *See* claim 10. For example, using Google Messages, the user of the mobile device causes the voice message notification to automatically be transmitted on one or more servers, including Google servers, with the addressed text message to the recipients. For example, Google has servers for transmitting Messages data.

Claim	Support
	 Source: https://www.google.com/about/datacenters/locations/ Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
13. The system of claim 10, wherein the client application transmits one of a text message, a voice message, and a combination thereof.	Each accused Samsung device, including the Galaxy S22+, includes the system of claim 10, wherein the client application transmits one of a text message, a voice message, and a combination thereof. *See* claim 10. Below is an example of text and voice input in the same message successfully transmitted to a receiving device (Cousin Amy).  Source: Galaxy S22+ 05/25/23

Claim	Support
	 Source: Galaxy S22+ 05/25/23 (Voice/Text Message Sent) Below is an example of text and voice inputs in the same message successfully received from a transmitting device (Cousin Amy).

Claim	Support
	 Source: Galaxy S22+, 05/25/23 (Voice/Text Message Received) Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses.

Claim	Support
	Plaintiff reserves the right to supplement after inspection of relevant source code.
14. The system of claim 10, wherein the client application is provided on an operating system of the mobile device.	Each accused Samsung device, including the Galaxy S22+, includes the system of claim 10, wherein the client application is provided on an operating system of the mobile device. For example, the Accused Products are Android-based mobile devices which receive and send messages, with multiple modes and interactive content. For example, the Accused Products are used to create interactive multimodal messages in the Messages application, which is a heavily featured and built-in app of the Android platform.  Source: https://messages.google.com/ Users are asked to set a default messaging application for the phone's operating system (Android). Below is an example of a user selecting the Google Messages App as the default application.

Claim	Support
	 Source: Galaxy S22+ 05/25/23 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support

Appendix C - Claim Chart for US Patent No. 9,185,227 Against Accused Samsung Galaxy S22+

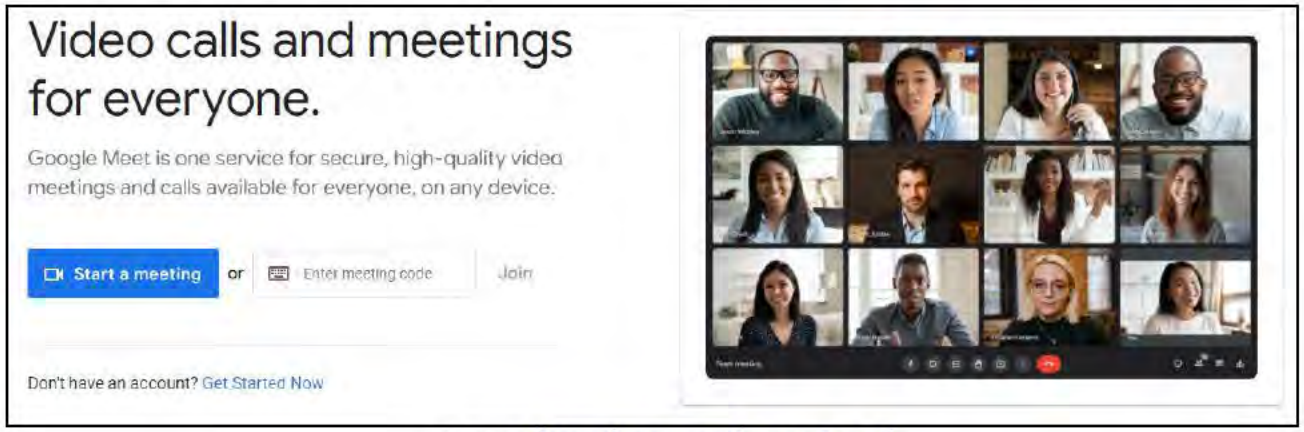
In these Infringement Contentions, Multimodal Media LLC ("Multimodal") contends that at least the following claims of U.S. Patent No. 9,185,227 ("'227 patent") identified below are infringed by Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. ("Defendants" or "Samsung") devices. Multimodal does not concede that any claims of the '227 patent that are not listed below are not infringed by the identified products. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Multimodal from citing or relying on additional documents, information, source code, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Samsung's products, internal documentation, source code, and/or testimony from relevant witnesses may more fully and accurately describe the infringing features of its accused products. Accordingly, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions once such additional information is made available to Multimodal. Furthermore, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions: as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Defendants, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

Representativeness: The Samsung Galaxy S21 Ultra 5G phone depicted in this chart is believed to be representative of other Samsung mobile devices that operate on the Android OS v.10 or later, including the Galaxy S10, Galaxy S10+, Galaxy A50, Galaxy A51, Galaxy S9, Galaxy Note10+, Galaxy Note9, Galaxy S10e, Galaxy S9+, Galaxy Note10, Galaxy A71, Galaxy A20, Galaxy A10, Galaxy A30, Galaxy A70, Galaxy S10 5G, Galaxy A7 (2018), Galaxy A30s, Galaxy A10s, Galaxy A20s, Galaxy A50s, Galaxy J6, Galaxy A01, Galaxy A80, Galaxy M20, Galaxy A40, Galaxy M30s, Galaxy A6 (2018), Galaxy M30, Galaxy Note10+ 5G, Galaxy A90 5G, Galaxy Note10 5G, Galaxy A20e, Galaxy M40, Galaxy A10e, Galaxy Fold, Galaxy A70s, Galaxy A60, Galaxy M10s, Galaxy Fold 5G, Galaxy Xcover 4s, Galaxy S20 FE 5G, Galaxy A12, Galaxy S20, Galaxy Note20 Ultra 5G, Galaxy S20 Ultra 5G, Galaxy A21s, Galaxy A31, Galaxy Note20, Galaxy S20+, Galaxy A11, Galaxy M31, Galaxy S20 FE, Galaxy S20 5G, Galaxy Z Fold2 5G, Galaxy M51, Galaxy M21, Galaxy A02s, Galaxy S20 Ultra, Galaxy S20+ 5G, Galaxy Note10 Lite, Galaxy M11, Galaxy Note20 Ultra, Galaxy A21, Galaxy S10 Lite, Galaxy A42 5G, Galaxy Z Flip, Galaxy M31s, Galaxy Note20 5G, Galaxy A01 Core, Galaxy A51 5G, Galaxy A71 5G, Galaxy M01, Galaxy A41, Galaxy F41, Galaxy M01 Core, Galaxy Xcover Pro, Galaxy Z Flip 5G, Galaxy M01s, Galaxy A Quantum, Galaxy M21s, Galaxy A71 5G UW, Galaxy A51 5G UW, Galaxy S20 5G UW, Galaxy M31 Prime, Galaxy S21 5G, Galaxy A32, Galaxy A52, Galaxy A03, Galaxy A52s 5G, Galaxy A03s, Galaxy A03 Core, Galaxy A22, Galaxy S21+ 5G, Galaxy A72, Galaxy A22 5G, Galaxy A32 5G, Galaxy A13 5G, Galaxy M32, Galaxy M52 5G, Galaxy A02, Galaxy Z Flip3 5G, Galaxy A52 5G, Galaxy M12, Galaxy Z Fold3 5G, Galaxy F22, Galaxy F62, Galaxy M02, Galaxy M32 5G, Galaxy Xcover 5, Galaxy M62, Galaxy F12, Galaxy M02s, Galaxy M22, Galaxy A12 Nacho, Galaxy F42 5G, Galaxy M42 5G, Galaxy Quantum 2, Galaxy M21 2021, Galaxy F02s, Galaxy F52 5G, Galaxy A13, Galaxy S21 FE 5G, Galaxy S22 Ultra 5G, Galaxy A23, Galaxy A53 5G, Galaxy A73 5G, Galaxy S22 5G, Galaxy A04, Galaxy A33 5G, Galaxy A04s, Galaxy A23 5G, Galaxy A04e, Galaxy M33, Galaxy Z Fold4, Galaxy S22+ 5G, Galaxy Z Flip4, Galaxy F23, Galaxy F13, Galaxy M53, Galaxy M13, Galaxy M23, Galaxy M04, Galaxy Xcover6 Pro, Galaxy M13 5G, Galaxy A13 (SM-A137), Galaxy S20 FE 2022, Galaxy A54, Galaxy S23 Ultra, Galaxy A34, Galaxy A14, Galaxy S23, Galaxy A24 4G, Galaxy A14 5G, Galaxy S23+, Galaxy M14, Galaxy M54, Galaxy F14, Galaxy F04, Galaxy Tab A8 10.5 (2021), Galaxy Tab A7 Lite, Galaxy Tab S8, Galaxy Tab S6 Lite, Galaxy Tab S7 FE, Galaxy Tab S8 Ultra, Galaxy Tab S6 Lite (2022), Galaxy Tab A7 10.4 (2020), Galaxy Tab S7, Galaxy Tab S8+, Galaxy Tab A 10.1 (2019), Galaxy Tab S9 Ultra, Galaxy Tab A 8.0 (2019), Galaxy Tab S6, Galaxy Tab S7+, Galaxy Tab S5e, Galaxy Tab A7 10.4 (2022), Galaxy Tab Active4 Pro, Galaxy Tab S4 10.5, Galaxy Tab Active3, Galaxy Tab A 8.0 & S Pen (2019), Galaxy Tab A 10.5, Galaxy Tab A 8.4 (2020), and Galaxy Tab S6 5G (the "Accused Products"). Based on publicly available information, Multimodal believes that the Samsung Galaxy S21 depicted herein and other Samsung mobile phones that operate on the Android OS share substantially the same structure and functionality with respect to the components which are relevant to infringement. Should discovery yield

documents or information demonstrating that Defendants sell other infringing devices, Multimodal reserves the right to amend its infringement contentions to include a chart mapping the claims of the '227 Patent to the structure and function of the newly discovered devices.

Claim	Support
1[P]. A computer implemented method for completing an incomplete call made by a calling party to a called party, comprising: [1A] providing a call completion application executable by at least one processor on a calling party device;	Each accused Samsung device, including the Samsung Galaxy S22+, performs a computer implemented method for completing an incomplete call made by a calling party to a called party, comprising providing a call completion application executable by at least one processor on a calling party device. Samsung directly infringes by making, using, selling, offering to sell, and/or importing the accused devices, and performs the claimed method in the United States at least through testing and troubleshooting the accused products, either directly or through its agents. Samsung also indirectly infringes by inducing others, including customers, to perform the claimed method. For example, the Accused Products operate on the Android OS and feature Google communication applications. For example, Google Meet (Google Duo and Google Meet have combined into a new Meet app) is a call completion application executable by at least one processor on an Android device. For example, the Accused Products come pre-installed with Google Meet as the native video call completion application. **Use Google Meet on your Galaxy phone** Make video calls with family and friends more enjoyable and interactive using the Google Meet app on **Galaxy Phones**. With the One UI 4 update and later, Google Meet comes integrated for ease of access, and Unlocked by Samsung phones will have it right in the phone dialer! During video calls, you can share your phone's screen and even add closed captions so you don't miss a word. CONTACT

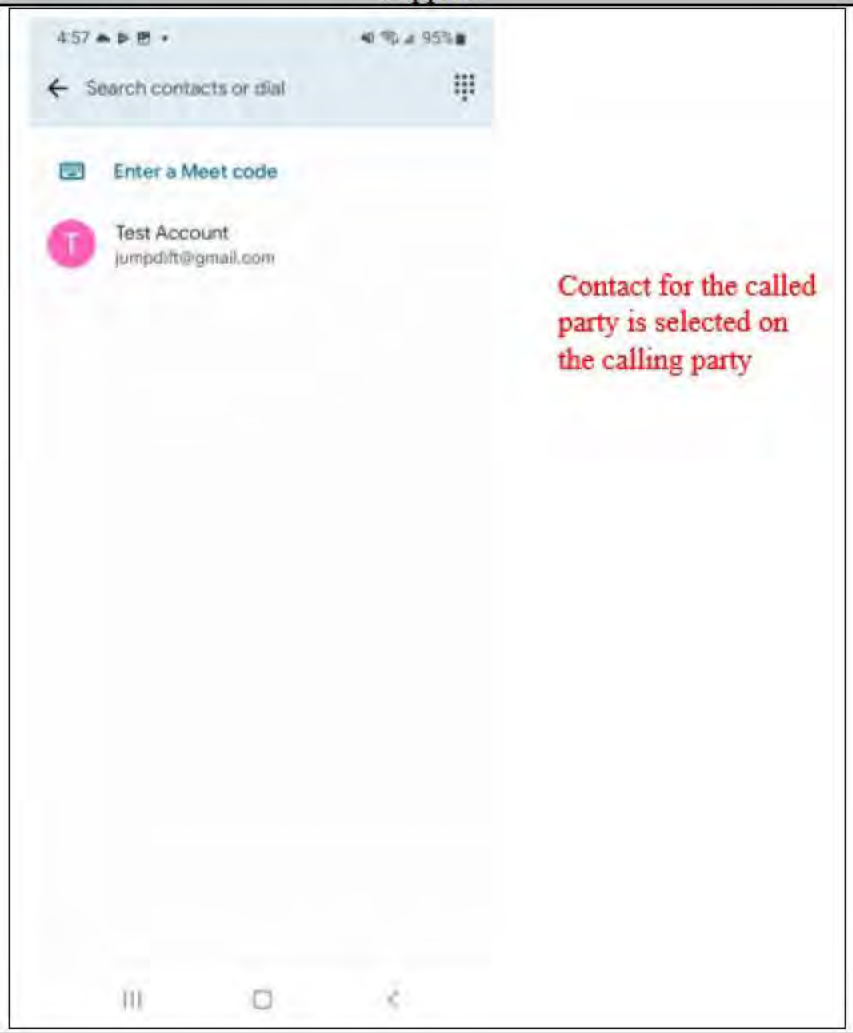
Claim	Support
	Source: https://www.Samsung.com/us/support/answer/ANS00090583/



Source: https://apps.google.com/meet/

Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses.

Claim	Support
	Plaintiff reserves the right to supplement after inspection of relevant source code.
[1B] detecting said incomplete call made by said calling party to said called party, by said call completion application on said calling party device, wherein said incomplete call is a call that is not connected to a called party device due to occurrence of one or more of a plurality of events;	Each accused Samsung device, including the Samsung Galaxy S22+, performs the step of detecting said incomplete call made by said calling party to said called party, by said call completion application on said calling party device, wherein said incomplete call is a call that is not connected to a called party device due to occurrence of one or more of a plurality of events. For example, the Accused Products using Google Meet detects an incomplete call due to, for example, the called party not answering.

Claim	Support
	

Claim	Support
	 Call is initiated.

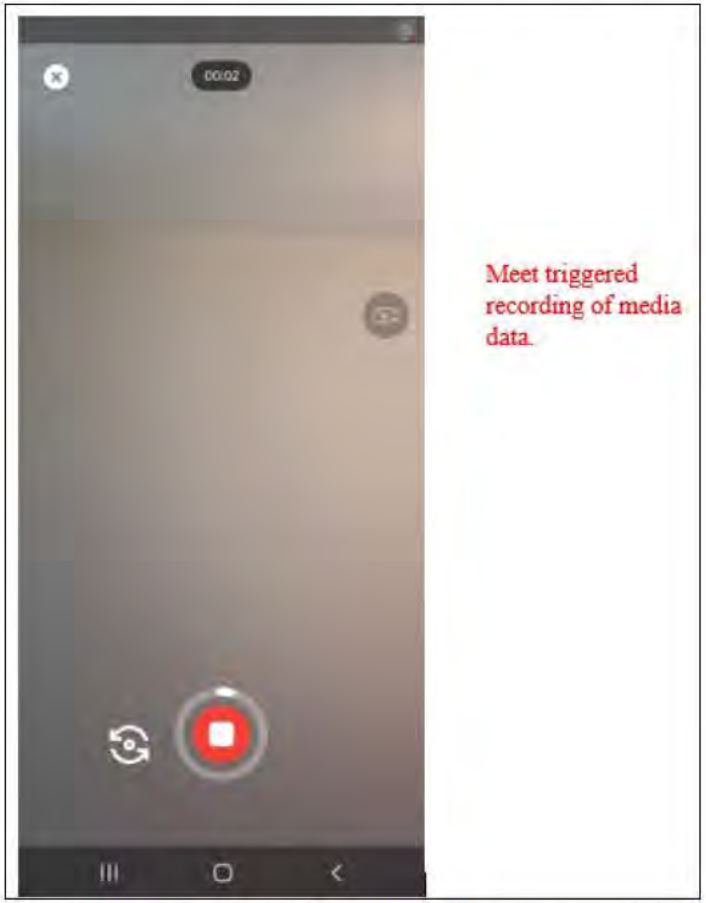
Claim	Support
	 Call is not connected to the called party device due to called party not answering. Incomplete call is detected by Google Meet. Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
[1C] receiving one or more of a plurality of call completion actions to be performed by said call completion application on said calling party device to complete said detected incomplete call, wherein said plurality of call completion actions are selected according to one or more responses provided by said calling party through a graphical user interface of said calling party device, wherein said call completion actions comprise setting a reminder to call back said called party at a configurable time, recording media data on said calling party device, transmitting said media data to a called party device, transmitting a missed call alert to said called party device, transmitting a notification of said detected incomplete call to said called party device, transmitting a notification on availability of said called party, transmitting said media data to a social networking platform, transmitting an automated message requesting said	Each accused Samsung device, including the Samsung Galaxy S22+, performs the step of receiving one or more of a plurality of call completion actions to be performed by said call completion application on said calling party device to complete said detected incomplete call, wherein said plurality of call completion actions are selected according to one or more responses provided by said calling party through a graphical user interface of said calling party device, wherein said call completion actions comprise setting a reminder to call back said called party at a configurable time, recording media data on said calling party device, transmitting said media data to a called party device, transmitting a missed call alert to said called party device, transmitting a notification of said detected incomplete call to said called party device, transmitting a notification on availability of said called party, transmitting said media data to a social networking platform, transmitting an automated message requesting said called party to call back said calling party when available, and any combination thereof. For example, the Accused Products using Google Meet receive one or more call completion actions to be performed to complete the incomplete call. The calling party selects the completion actions, which include at least recording media data on a calling party device and transmitting said media data to a called party device.

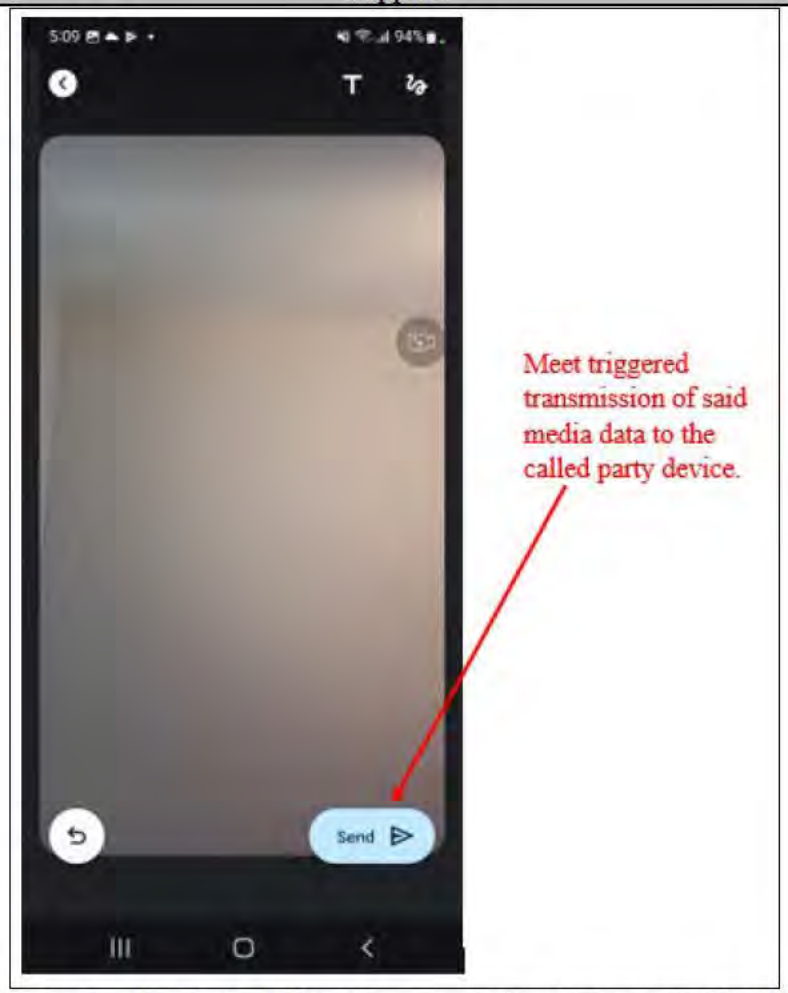
Claim	Support
called party to call back said calling party when available, and any combination thereof, and	Recording Media data in form of video

Claim	Support
	Recording Media data in form of voice audio

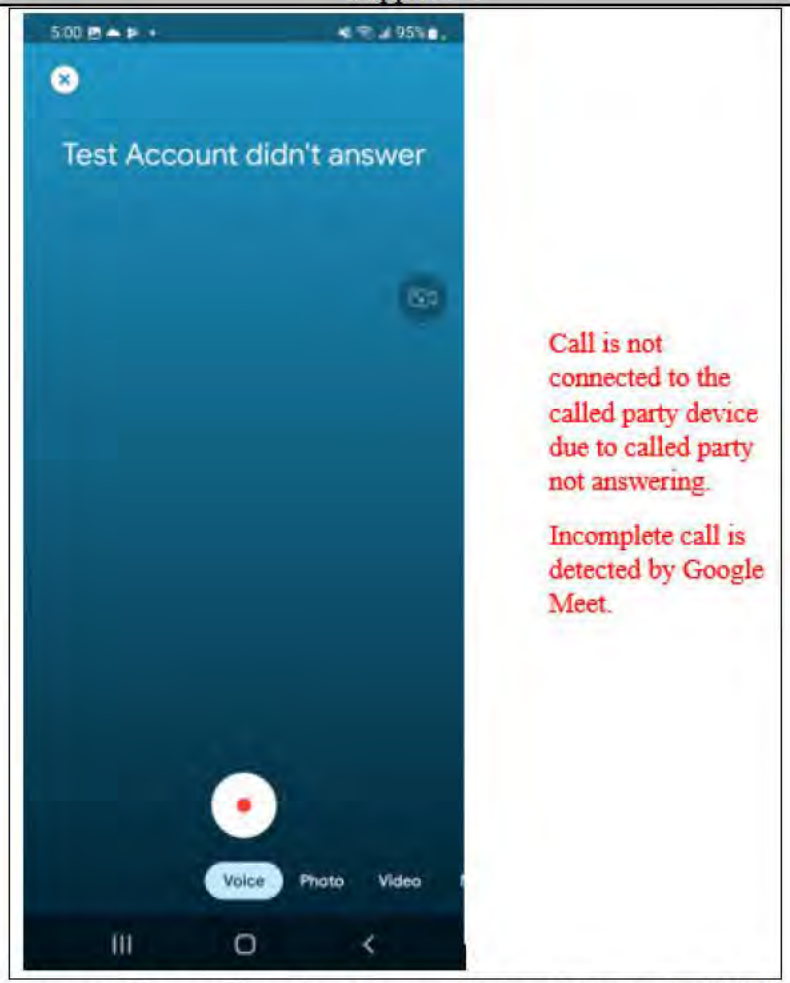
Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
[1D] triggering execution of said received one or more of said call completion actions by said call completion application on said calling party device based on one or more of action execution criteria for said completion of detected incomplete call.	Each accused Samsung device, including the Samsung Galaxy S22+, performs the step of triggering execution of said received one or more of said call completion actions by said call completion application on said calling party device based on one or more of action execution criteria for said completion of detected incomplete call. For example, the Accused Products using Google Meet trigger execution of the call completion actions on the calling party device based on action execution criteria, for example, call completion configurations on the calling party device.  Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

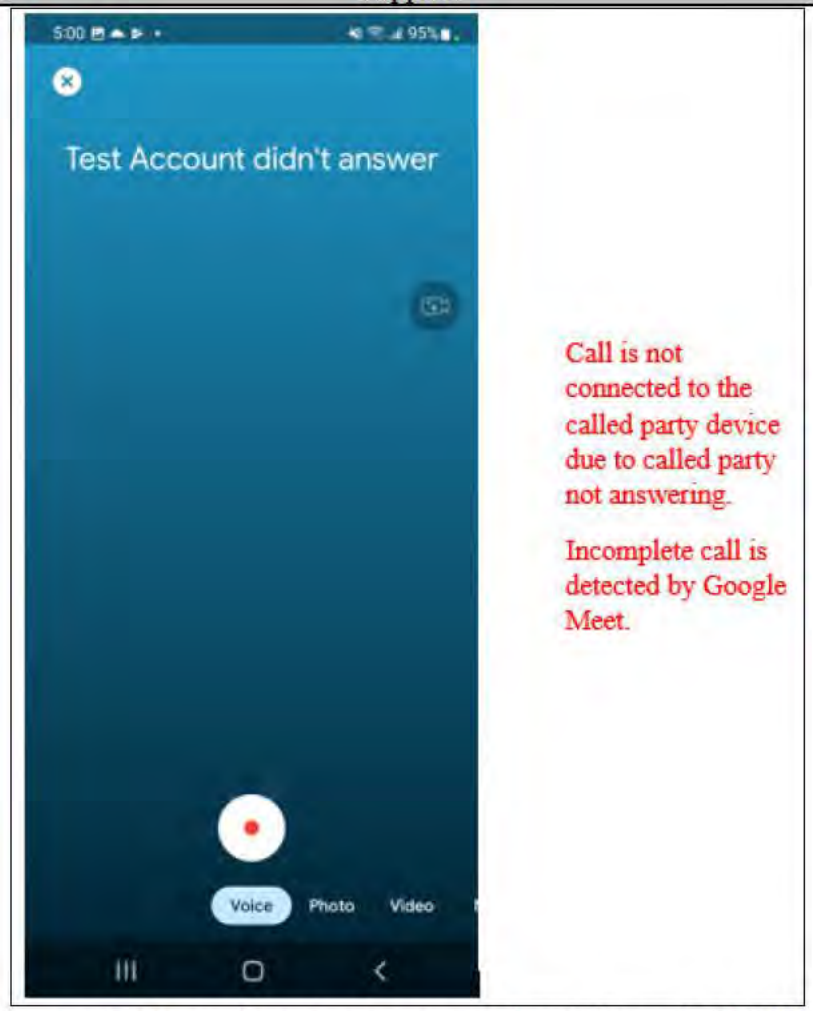
Claim	Support
	 Meet triggered recording of media data. Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

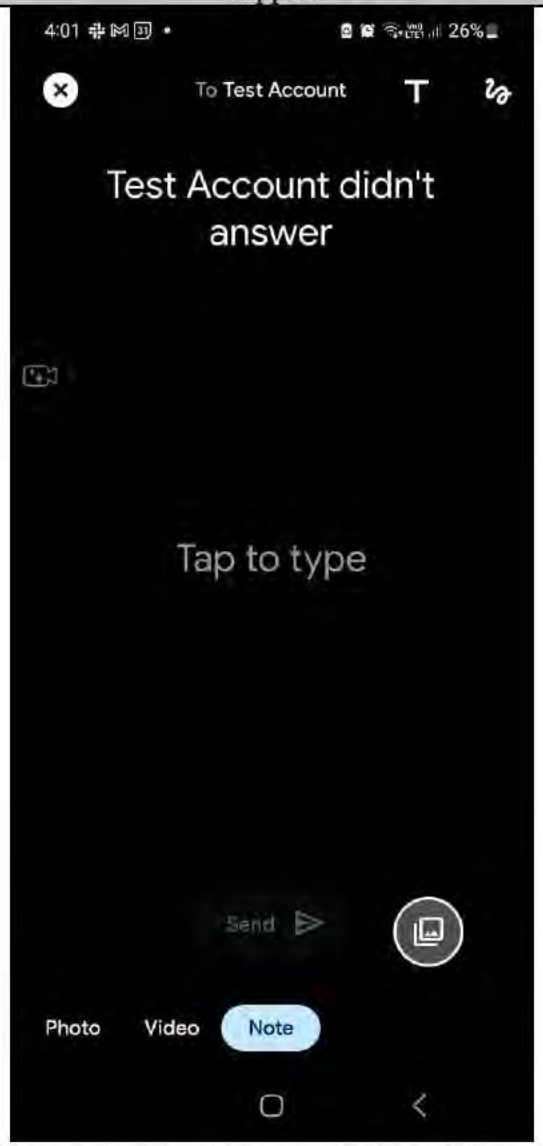
Claim	Support
2. The computer implemented method of claim 1, wherein said events comprise said called party being busy, said called party device being in an out of coverage area, said called party device being unreachable, said called party device being switched off, network congestion, and said call not being answered by said called party.	Each accused Samsung device, including the Samsung Galaxy S22+, performs the computer implemented method of claim 1, wherein said events comprise said called party being busy, said called party device being in an out of coverage area, said called party device being unreachable, said called party device being Switched off network congestion, and said call not being answered by said called party. *See* claim 1. For example, the Accused Products using Google Meet detect that an incomplete call was made whether the called party was busy, in an out of coverage area, phone was unreachable, phone was switched off, there was network congestion, or the called party did not answer.

Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

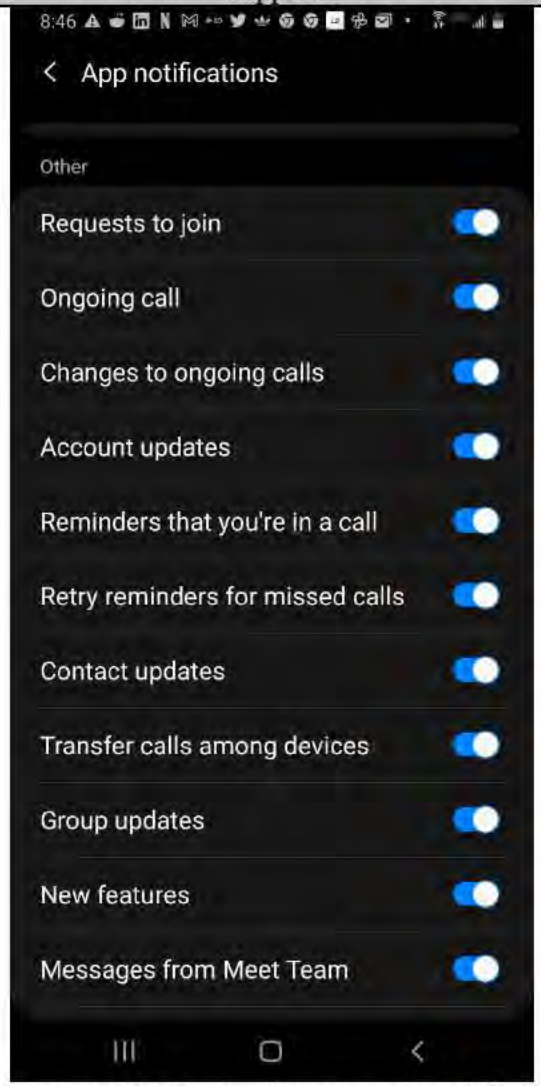
Claim	Support
3. The computer implemented method of claim 1, wherein said incomplete call is a call of a short duration that does not enable an intended communication to occur between said calling party and said called party.	Each accused Samsung device, including the Samsung Galaxy S22+, performs the computer implemented method of claim 1, wherein said incomplete call is a call of a short duration that does not enable an intended communication to occur between said calling party and said called party. *See* claim 1. For example, when the called party immediately declines the call, the call is of short duration that does not enable communication and the Accused Products using Google Meet notify the calling party.

Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

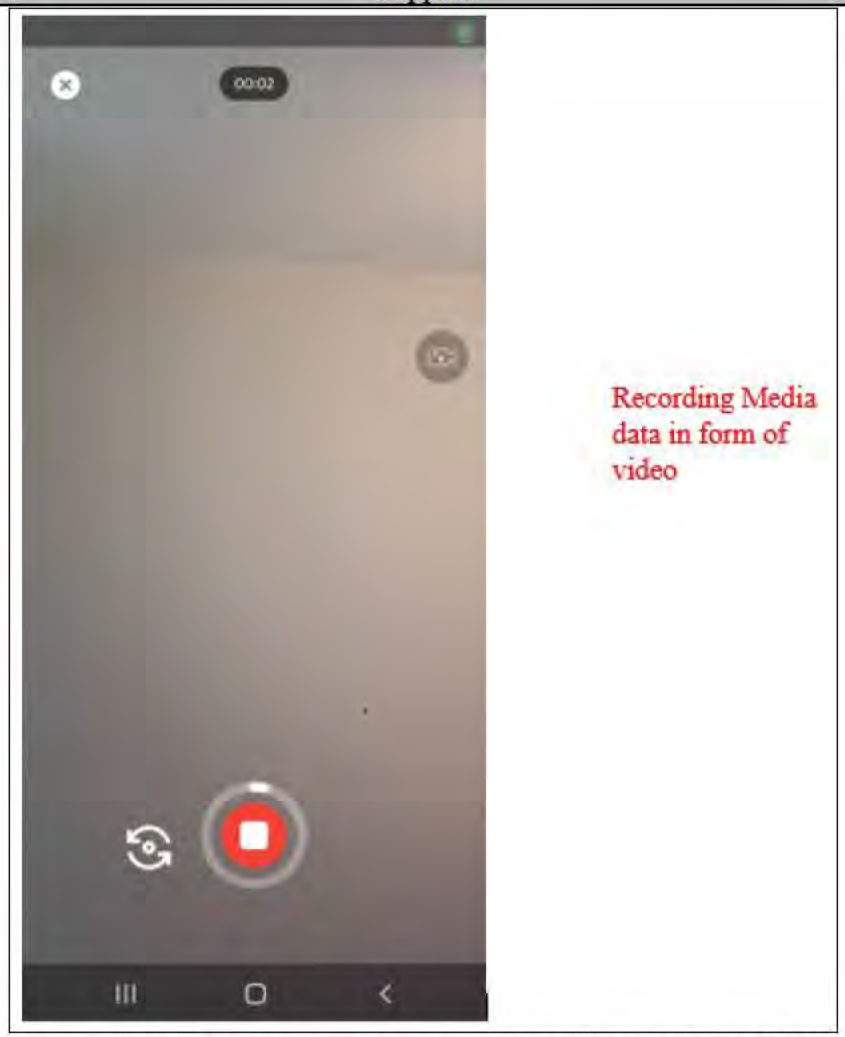
Claim	Support
5. The computer implemented method of claim 1, wherein said action execution criteria comprise configuration of said call completion actions on said calling party device, one of a presence and an absence of one or more of a message box and a messaging application for receiving media data on one of a network account of said called party and a called party device, one of a presence and an absence of a data connection from said calling party device to a network, one of a presence and an absence of a messaging service in a network component of said called party, one of a presence and an absence of a messaging service in a network component of said calling party, reach of said messaging service to deliver said media data to one of said network component of said called party and said called party device, network options provided to said calling party device and said called party device by said network to which said calling party device and said called party device are connected, and call completion preferences configured by said	Each accused Samsung device, including the Samsung Galaxy S22+, performs the computer implemented method of claim 1, wherein said action execution criteria comprise configuration of said call completion actions on said calling party device, one of a presence and an absence of one or more of a message box and a messaging application for receiving media data on one of a network account of said called party and a called party device, one of a presence and an absence of a data connection from said calling party device to a network, one of a presence and an absence of a messaging service in a network component of said called party, one of a presence and an absence of a messaging service in a network component of said calling party, reach of said messaging service to deliver said media data to one of said network component of said called party and said called party device, network options provided to said calling party device and said called party device by said network to which said calling party device and said called party device are connected, and call completion preferences configured by said call completion application on said calling party device. *See* claim 1. For example, in the Accused Products using Google Meet, a calling party can set action execution criteria based on configured settings to prompt call completion actions.

Claim	Support
call completion application on said calling party device.	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

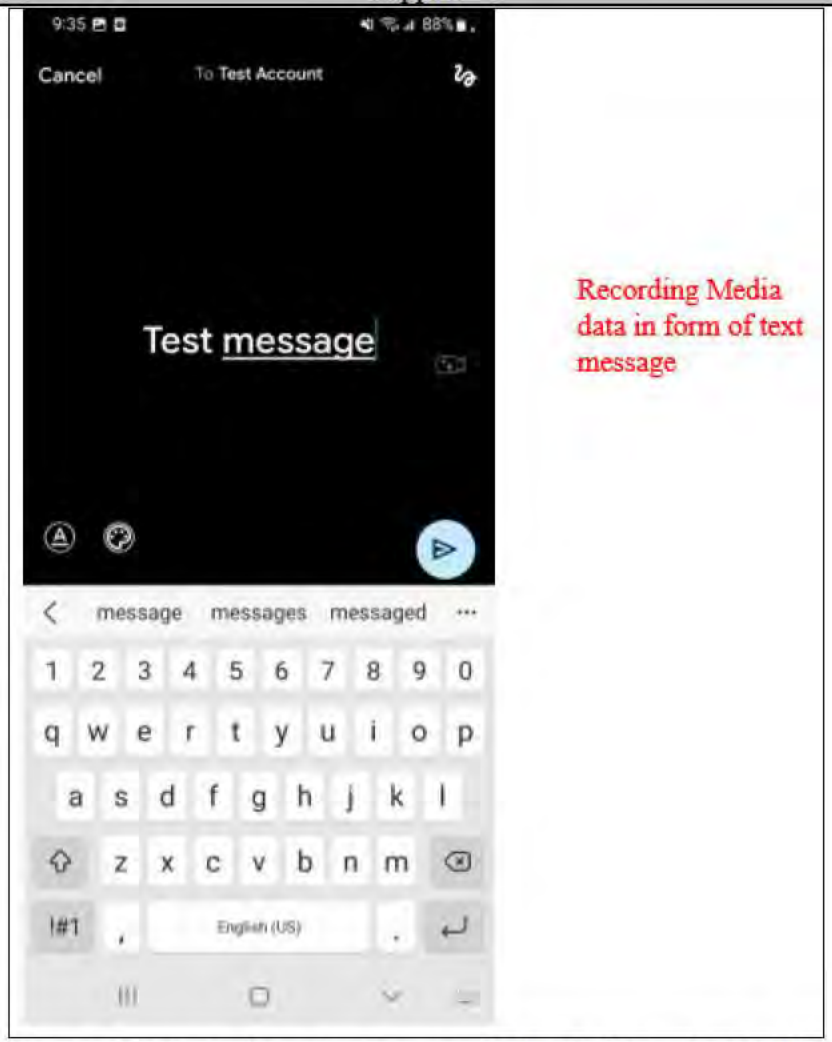
Claim	Support
	 Message Box Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

Claim	Support
	 Source: Samsung Galaxy S9+ Testing (representative of all Accused Products)

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
8. The computer implemented method of claim 1, wherein said media data comprises one of text data, audio data, video data, audiovisual data, image data, multimedia data, message data, and any combination thereof.	Each accused Samsung device, including the Samsung Galaxy S22+, performs the computer implemented method of claim 1, wherein said media data comprises one of text data, audio data, video data, audiovisual data, image data, multimedia data, message data, and any combination thereof. *See* claim 1. For example, the Accused Products using Google Meet send text data, audio data, video data, audiovisual data, image data, multimedia data, and message data.

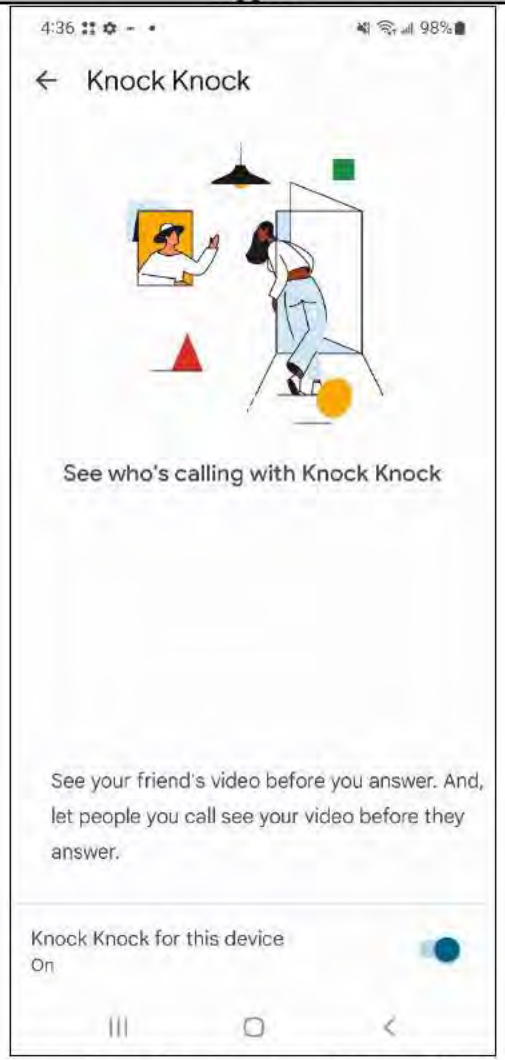
Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

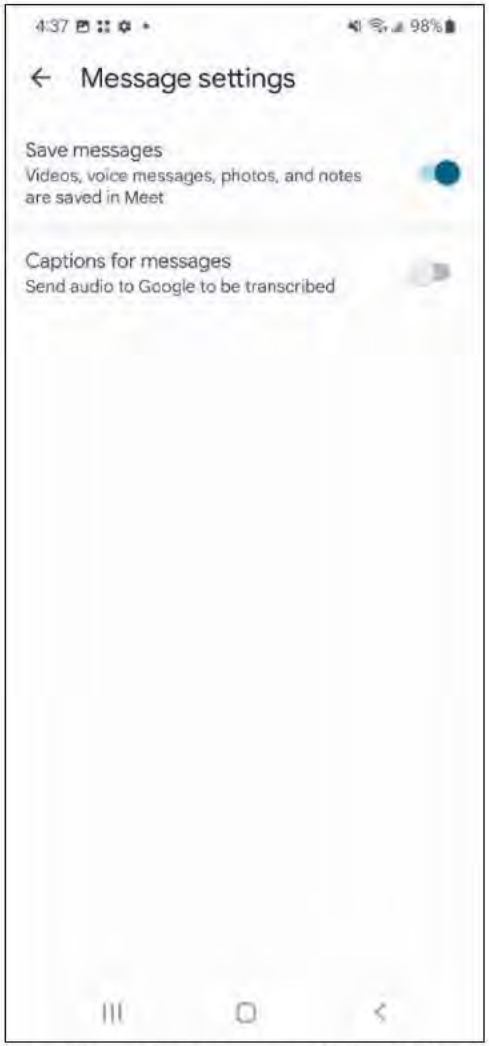
Claim	Support
	 Recording Media data in form of voice audio Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

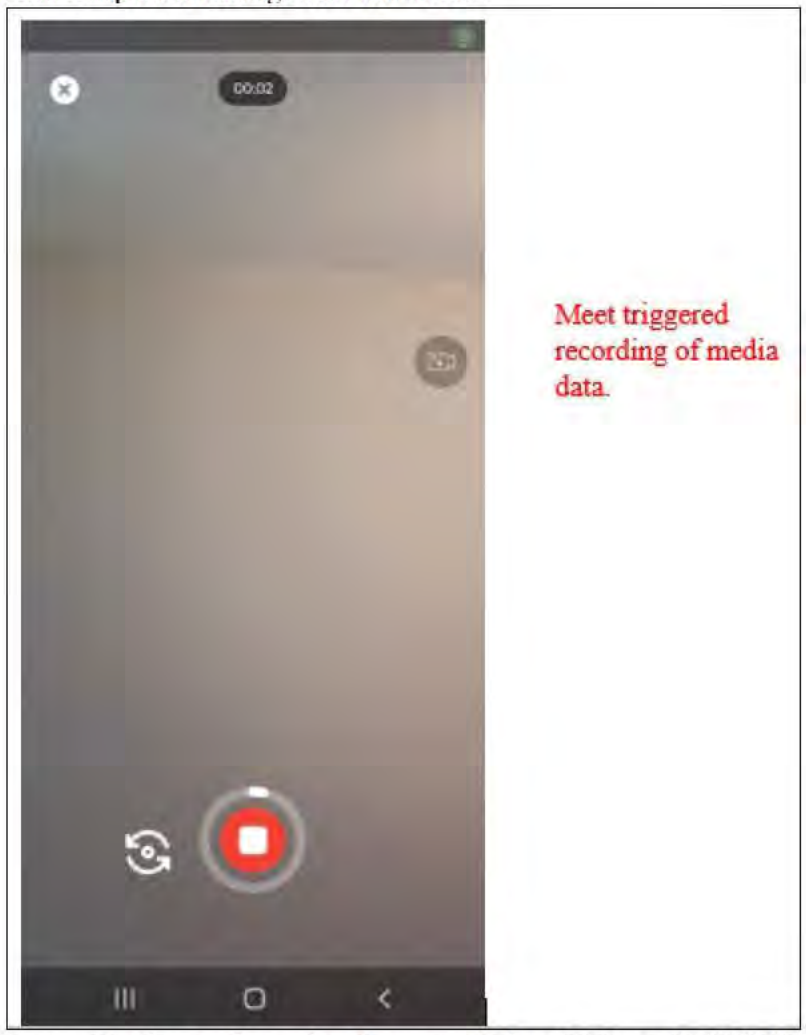
Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

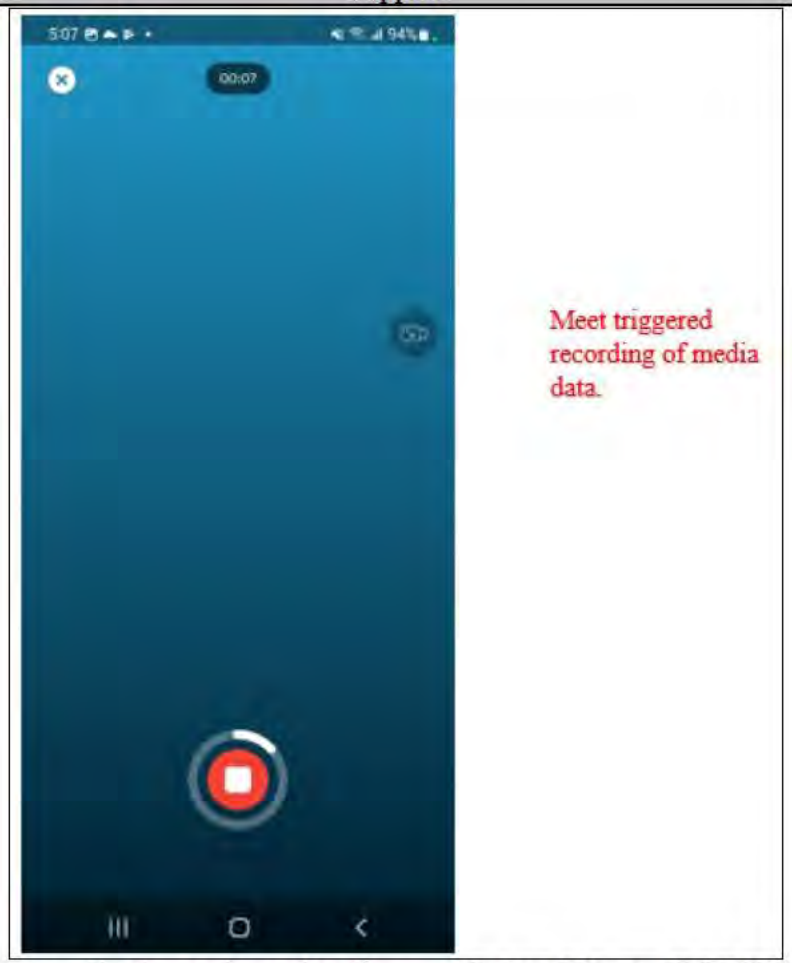
Claim	Support
	 Meet from anywhere Get the whole crew together in Google Meet, where you can present business proposals, collaborate on chemistry assignments, or just catch up face to face. Businesses, schools, and other organizations can live stream meetings to 100,000 viewers within their domain. See plans and pricing for organizations Source: https://apps.google.com/meet/?src=duo-redirect You can send video or voice messages with the new Meet app. You can also turn on captions for video or voice messages you send and receive. After you play a message, you can revisit it at any time unless you changed your Meet calling settings to automatically delete video or voice messages 24 hours after they play. When your messages automatically delete, they are removed from all your devices. Source: https://support.google.com/meet/answer/12409381#zippy=%2Chow-messages-work Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
9. The computer implemented method of claim 1, further comprising determining a mode of transmission of media data from said calling party device to a called party device via a network, by said call completion application on said calling party device based on one or more of said action execution criteria.	Each accused Samsung device, including the Samsung Galaxy S22+, performs the computer implemented method of claim 1, further comprising determining a mode of transmission of media data from said calling party device to a called party device via a network, by said call completion application on said calling party device based on one or more of said action execution criteria. *See* claim 1. For example, the Accused Products using Google Meet determine a mode of transmission of the audio, video, audiovisual etc. data based on the type of data being sent and based on one or more of the action execution criteria. For example, the Knock Knock setting, when activated will show a preview of the calling party to the called party before the call is connected.

Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

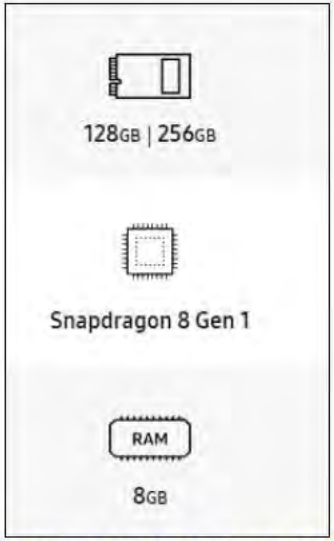
Claim	Support
	For example, the Captions setting, when activated will automatically transcribe and send captions with audio messages.  Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

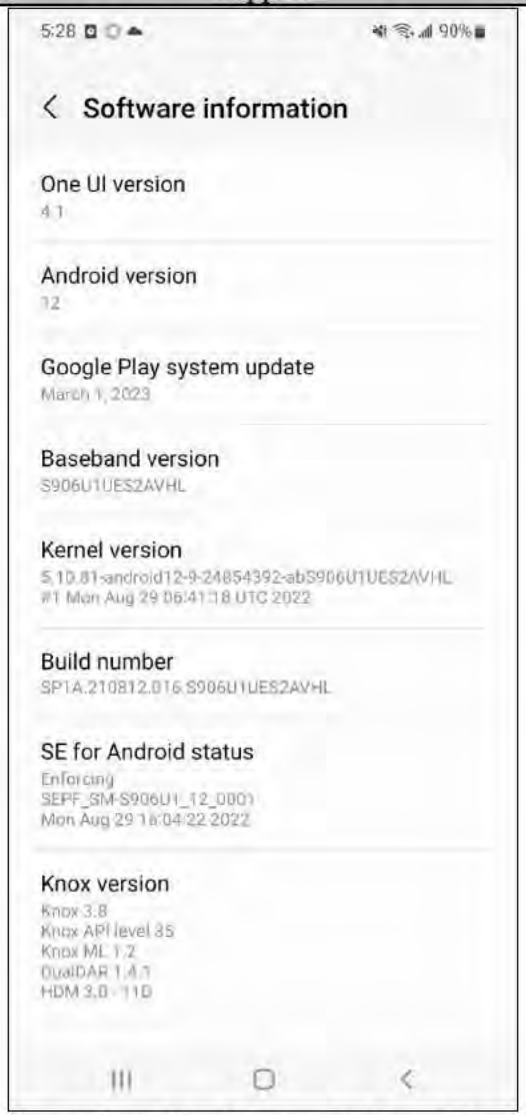
Claim	Support
	For example, additional call completion settings send reminders.  Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

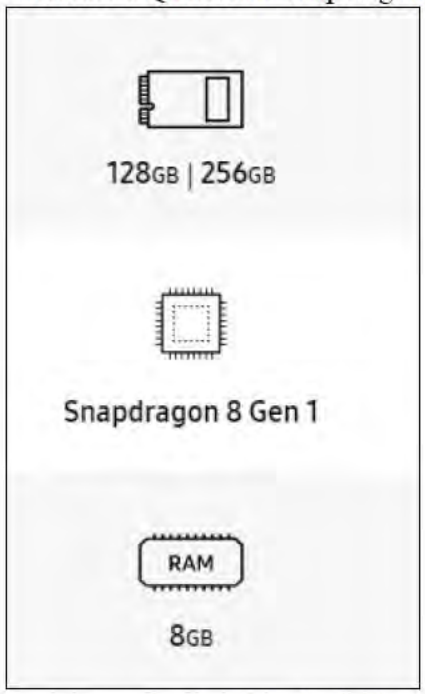
Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

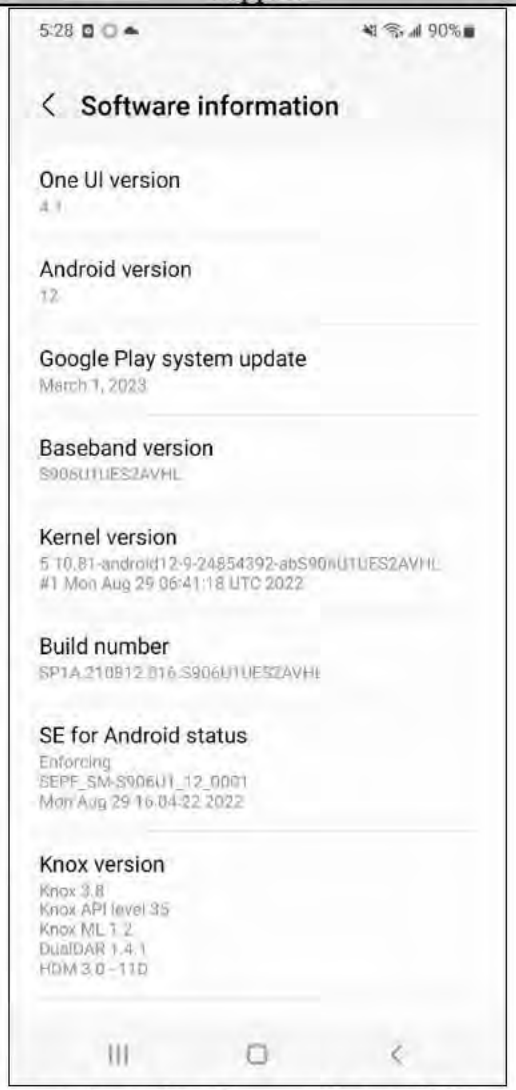
Claim	Support
10. The computer implemented method of claim 1, further comprising monitoring said incomplete call by said call completion application on said calling party device as said incomplete call progresses from said incomplete call being initiated, said incomplete call being one of answered and rejected, and said incomplete call being terminated.	Each accused Samsung device, including the Samsung Galaxy S22+, performs the computer implemented method of claim 1, further comprising monitoring said incomplete call by said call completion application on said calling party device as said incomplete call progresses from said incomplete call being initiated, said incomplete call being one of answered and rejected, and said incomplete call being terminated. *See* claim 1. For example, the Accused Products using Google Meet, monitor an incomplete call and detect when the call is terminated.

Claim	Support
	 Call is not connected to the called party device due to called party not answering. Incomplete call is detected by Google Meet. Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

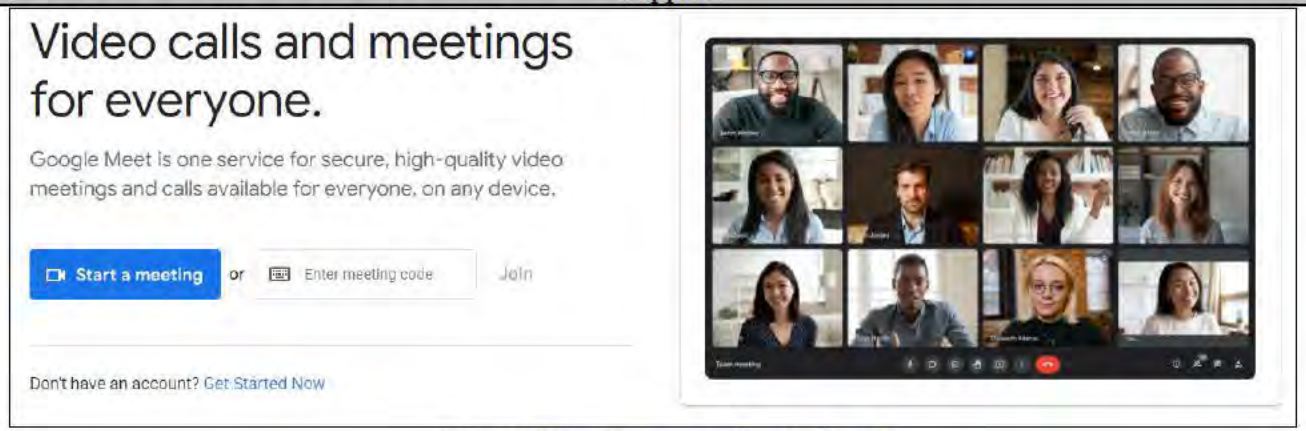
Claim	Support
11[P]. A computer system for completing an incomplete call made by a calling party to a called party, comprising: 11[A]. a non-transitory computer readable storage medium configured to store a call completion application on a calling party device;	Each accused Samsung device, including the Samsung Galaxy S22+, includes a computer system for completing an incomplete call made by a calling party to a called party, comprising a non-transitory computer readable storage medium configured to store a call completion application on a calling party device. For example, the Accused Products are mobile phones that operate on the Android OS and feature Google communication applications. For example, Google Meet is a call completion application executable by at least one processor on an Android device. For example, the Accused Products, including the Samsung Galaxy S22+, include a non-transitory computer readable storage medium that stores applications such as Google Meet. For example, the Samsung Galaxy S22+ includes at least 128GB storage and 8GB RAM.  Source: Buy Galaxy S22+, 128GB (Unlocked) Phones | Samsung US

Claim	Support
	 =Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
11[B]. at least one processor communicatively coupled to said non-transitory computer readable storage medium, said at least one processor configured to execute said call completion application on said calling party device; and	Each accused Samsung device, including the Samsung Galaxy S22+, includes at least one processor communicatively coupled to said non-transitory computer readable storage medium, said at least one processor configured to execute said call completion application on said calling party device. For example, the Accused Products, including the Samsung Galaxy S22+, include at least one processor coupled to the storage medium that is configured to execute the Google Meet application. For example, the Samsung Galaxy S22+ includes a Qualcomm Snapdragon 8 Gen1 CPU.  Source: Buy Galaxy S22+, 128GB (Unlocked) Phones | Samsung US

Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
11[C]. said call completion application on said calling party device, comprising:	Each accused Samsung device, including the Samsung Galaxy S22+, includes said call completion application on said calling party device. For example, the Accused Products come pre-installed with Google Meet as the native video call completion application. **Use Google Meet on your Galaxy phone** Make video calls with family and friends more enjoyable and interactive using the Google Meet app on **Galaxy Phones**. With the One UI 4 update and later, Google Meet comes integrated for ease of access, and Unlocked by Samsung phones will have it right in the phone dialer! During video calls, you can share your phone's screen and even add closed captions so you don't miss a word. CONTACT Source: https://www.Samsung.com/us/support/answer/ANS00090583/

Claim	Support
	 Source: https://apps.google.com/meet/

Claim	Support
	 Source: Testing performed on Samsung Galaxy S22+ on 05/22/2023. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
11[D]. a call detection module configured to detect said incomplete call made by said calling party to said called party;	Each accused Samsung device, including the Samsung Galaxy S22+, includes a call detection module configured to detect said incomplete call made by said calling party to said called party. *See* claim 1[B]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
11[E]. an action determination module configured to receive one or more of a plurality of call completion actions to be performed to complete said detected incomplete call wherein said plurality of call completion actions are selected according to one or more responses provided by said calling party through a graphical user interface of said calling party device, and wherein said call completion actions comprise setting a reminder to call back said called party at a configurable time, recording media data on said calling party device, transmitting said media data to a called party device, transmitting a missed call alert to said called party device, transmitting a notification of said detected	Each accused Samsung device, including the Samsung Galaxy S22+, includes an action determination module configured to receive one or more of a plurality of call completion actions to be performed to complete said detected incomplete call wherein said plurality of call completion actions are selected according to one or more responses provided by said calling party through a graphical user interface of said calling party device, and wherein said call completion actions comprise setting a reminder to call back said called party at a configurable time, recording media data on said calling party device, transmitting said media data to a called party device, transmitting a missed call alert to said called party device, transmitting a notification of said detected incomplete call to said called party device, transmitting a notification on availability of said called party, transmitting said media data to a social networking platform, transmitting an automated message requesting said called party to call back said calling party when available, and any combination thereof. *See* claim 1[C]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
incomplete call to said called party device, transmitting a notification on availability of said called party, transmitting said media data to a social networking platform, transmitting an automated message requesting said called party to call back said calling party when available, and any combination thereof, and	
11[F]. an action execution module configured to trigger execution of said received one or more of said call completion actions based on one or more of action execution criteria one or more responses selected by said calling party for said completion of said detected incomplete call.	Each accused Samsung device, including the Samsung Galaxy S22+, includes an action execution module configured to trigger execution of said received one or more of said call completion actions based on one or more of action execution criteria one or more responses selected by said calling party for said completion of said detected incomplete call. *See* claim 1[D]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
12. The computer system of claim 11, wherein said incomplete call is a call that is not connected to a called party device due to occurrence of one or more of a plurality of events, wherein said events comprise said called party being busy, said called party device being in an out of coverage area, said called	Each accused Samsung device, including the Samsung Galaxy S22+, includes the computer system of claim 11, wherein said incomplete call is a call that is not connected to a called party device due to occurrence of one or more of a plurality of events, wherein said events comprise said called party being busy, said called party device being in an out of coverage area, said called party device being unreachable, said called party device being switched off, network congestion, and said call not being answered by said called party. *See* claims 11, 2. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses.

Claim	Support
party device being unreachable, said called party device being switched off, network congestion, and said call not being answered by said called party.	Plaintiff reserves the right to supplement after inspection of relevant source code.
13. The computer system of claim 11, wherein said incomplete call is a call of a short duration that does not enable an intended communication to occur between said calling party and said called party.	Each accused Samsung device, including the Samsung Galaxy S22+, includes the computer system of claim 11, wherein said incomplete call is a call of a short duration that does not enable an intended communication to occur between said calling party and said called party. *See* claims 11, 3. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
15. The computer system of claim 11, wherein said action execution criteria comprise configuration of said call completion actions on said calling party device, one of a presence and an absence of one or more of a message box and a messaging application for receiving media data on one of a network account of said called party and a called party device, one of a presence and an absence of a data connection from said calling party device to a network, one of a presence and	Each accused Samsung device, including the Samsung Galaxy S22+, includes the computer system of claim 11, wherein said action execution criteria comprise configuration of said call completion actions on said calling party device, one of a presence and an absence of one or more of a message box and a messaging application for receiving media data on one of a network account of said called party and a called party device, one of a presence and an absence of a data connection from said calling party device to a network, one of a presence and an absence of a messaging service in a network component of said called party, one of a presence and an absence of a messaging service in a network component of said calling party, reach of said messaging service to deliver said media data to one of said network component of said called party and said called party device, network options provided to said calling party device and said called party device by said network to which said calling party device and said called party device are connected, and call completion preferences configured by said call completion application on said calling party device. *See* claims 11, 5.

Claim	Support
an absence of a messaging service in a network component of said called party, one of a presence and an absence of a messaging service in a network component of said calling party, reach of said messaging service to deliver said media data to one of said network component of said called party and said called party device, network options provided to said calling party device and said called party device by said network to which said calling party device and said called party device are connected, and call completion preferences configured by said call completion application on said calling party device.	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
17. The computer system of claim 11, wherein said media data comprises one of text data, audio data, video data, audio visual data, image data, multimedia data, message data, and any combination thereof.	Each accused Samsung device, including the Samsung Galaxy S22+, includes the computer system of claim 11, wherein said media data comprises one of text data, audio data, video data, audio visual data, image data, multimedia data, message data, and any combination thereof. *See* claims 11, 8. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

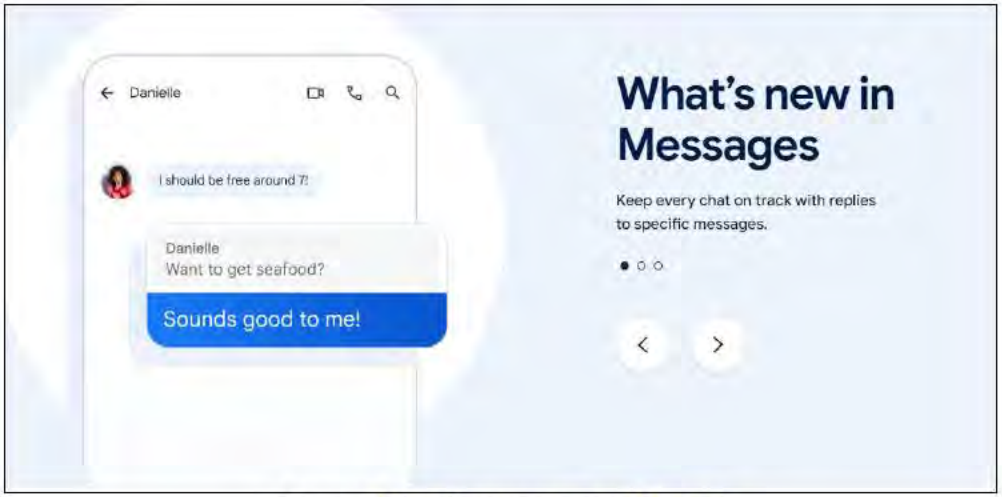
Claim	Support
18. The computer system of claim 11, wherein said action execution module is further configured to determine a mode of transmission of media data from said calling party device to a called party device via a network based on one or more of said action execution criteria.	Each accused Samsung device, including the Samsung Galaxy S22+, includes the computer system of claim 11, wherein said action execution module is further configured to determine a mode of transmission of media data from said calling party device to a called party device via a network based on one or more of said action execution criteria. *See* claims 11, 9. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
19. The computer system of claim 11, wherein said call detection module is further configured to monitor said incomplete call on said calling party device as said incomplete call progresses from said incomplete call being initiated, said incomplete call being one of answered and rejected, and said incomplete call being terminated.	Each accused Samsung device, including the Samsung Galaxy S22+, includes the computer system of claim 11, wherein said call detection module is further configured to monitor said incomplete call on said calling party device as said incomplete call progresses from said incomplete call being initiated, said incomplete call being one of answered and rejected, and said incomplete call being terminated. *See* claims 11, 10. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Appendix D - Claim Chart for US Patent No. 10,552,030 Against Accused Samsung Galaxy S21 Ultra 5G

In these Infringement Contentions, Multimodal Media LLC ("Multimodal") contends that at least the following claims of U.S. Patent No. 10,552,030 ("'030 patent") identified below are infringed by Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. ("Defendants" or "Samsung") devices. Multimodal does not concede that any claims of the '030 patent that are not listed below are not infringed by the identified products. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Multimodal from citing or relying on additional documents, information, source code, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Samsung's products, internal documentation, source code, and/or testimony from relevant witnesses may more fully and accurately describe the infringing features of its accused products. Accordingly, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions once such additional information is made available to Multimodal. Furthermore, Multimodal reserves the right to supplement, correct, modify, and/or amend these contentions: as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Defendants, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

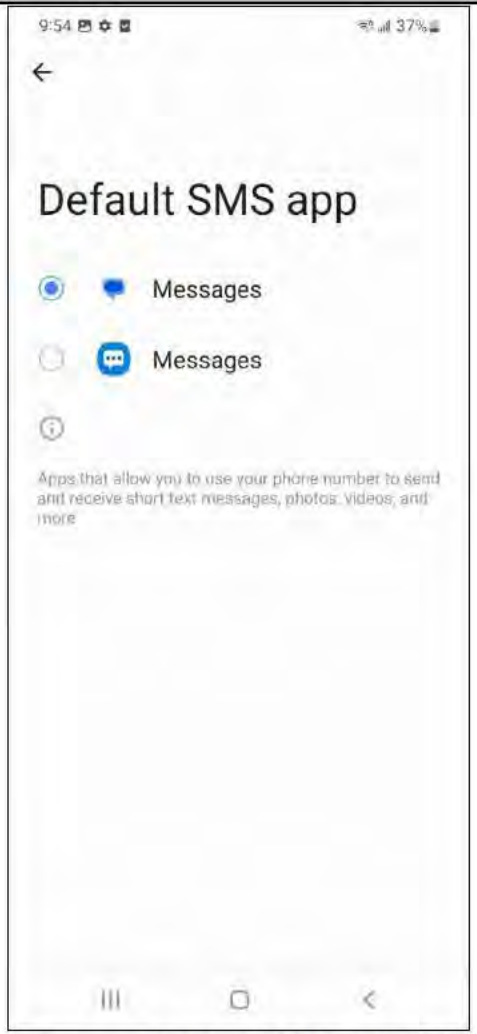
Representativeness: The Samsung Galaxy S21 Ultra 5G phone depicted in this chart is believed to be representative of other Samsung mobile devices that operate on the Android OS v.10 or later, including the Galaxy S10, Galaxy S10+, Galaxy A50, Galaxy A51, Galaxy S9, Galaxy Note10+, Galaxy Note9, Galaxy S10e, Galaxy S9+, Galaxy Note10, Galaxy A71, Galaxy A20, Galaxy A10, Galaxy A30, Galaxy A70, Galaxy S10 5G, Galaxy A7 (2018), Galaxy A30s, Galaxy A10s, Galaxy A20s, Galaxy A50s, Galaxy J6, Galaxy A01, Galaxy A80, Galaxy M20, Galaxy A40, Galaxy M30s, Galaxy A6 (2018), Galaxy M30, Galaxy Note10+ 5G, Galaxy A90 5G, Galaxy Note10 5G, Galaxy A20e, Galaxy M40, Galaxy A10e, Galaxy Fold, Galaxy A70s, Galaxy A60, Galaxy M10s, Galaxy Fold 5G, Galaxy Xcover 4s, Galaxy S20 FE 5G, Galaxy A12, Galaxy S20, Galaxy Note20 Ultra 5G, Galaxy S20 Ultra 5G, Galaxy A21s, Galaxy A31, Galaxy Note20, Galaxy S20+, Galaxy A11, Galaxy M31, Galaxy S20 FE, Galaxy S20 5G, Galaxy Z Fold2 5G, Galaxy M51, Galaxy M21, Galaxy A02s, Galaxy S20 Ultra, Galaxy S20+ 5G, Galaxy Note10 Lite, Galaxy M11, Galaxy Note20 Ultra, Galaxy A21, Galaxy S10 Lite, Galaxy A42 5G, Galaxy Z Flip, Galaxy M31s, Galaxy Note20 5G, Galaxy A01 Core, Galaxy A51 5G, Galaxy A71 5G, Galaxy M01, Galaxy A41, Galaxy F41, Galaxy M01 Core, Galaxy Xcover Pro, Galaxy Z Flip 5G, Galaxy M01s, Galaxy A Quantum, Galaxy M21s, Galaxy A71 5G UW, Galaxy A51 5G UW, Galaxy S20 5G UW, Galaxy M31 Prime, Galaxy S21 5G, Galaxy A32, Galaxy A52, Galaxy A03, Galaxy A52s 5G, Galaxy A03s, Galaxy A03 Core, Galaxy A22, Galaxy S21+ 5G, Galaxy A72, Galaxy A22 5G, Galaxy A32 5G, Galaxy A13 5G, Galaxy M32, Galaxy M52 5G, Galaxy A02, Galaxy Z Flip3 5G, Galaxy A52 5G, Galaxy M12, Galaxy Z Fold3 5G, Galaxy F22, Galaxy F62, Galaxy M02, Galaxy M32 5G, Galaxy Xcover 5, Galaxy M62, Galaxy F12, Galaxy M02s, Galaxy M22, Galaxy A12 Nacho, Galaxy F42 5G, Galaxy M42 5G, Galaxy Quantum 2, Galaxy M21 2021, Galaxy F02s, Galaxy F52 5G, Galaxy A13, Galaxy S21 FE 5G, Galaxy S22 Ultra 5G, Galaxy A23, Galaxy A53 5G, Galaxy A73 5G, Galaxy S22 5G, Galaxy A04, Galaxy A33 5G, Galaxy A04s, Galaxy A23 5G, Galaxy A04e, Galaxy M33, Galaxy Z Fold4, Galaxy S22+ 5G, Galaxy Z Flip4, Galaxy F23, Galaxy F13, Galaxy M53, Galaxy M13, Galaxy M23, Galaxy M04, Galaxy Xcover6 Pro, Galaxy M13 5G, Galaxy A13 (SM-A137), Galaxy S20 FE 2022, Galaxy A54, Galaxy S23 Ultra, Galaxy A34, Galaxy A14, Galaxy S23, Galaxy A24 4G, Galaxy A14 5G, Galaxy S23+, Galaxy M14, Galaxy M54, Galaxy F14, Galaxy F04, Galaxy Tab A8 10.5 (2021), Galaxy Tab A7 Lite, Galaxy Tab S8, Galaxy Tab S6 Lite, Galaxy Tab S7 FE, Galaxy Tab S8 Ultra, Galaxy Tab S6 Lite (2022), Galaxy Tab A7 10.4 (2020), Galaxy Tab S7, Galaxy Tab S8+, Galaxy Tab A 10.1 (2019), Galaxy Tab S9 Ultra, Galaxy Tab A 8.0 (2019), Galaxy Tab S6, Galaxy Tab S7+, Galaxy Tab S5e, Galaxy Tab A7 10.4 (2022), Galaxy Tab Active4 Pro, Galaxy Tab S4 10.5, Galaxy Tab Active3, Galaxy Tab A 8.0 & S Pen (2019), Galaxy Tab A 10.5, Galaxy Tab A 8.4 (2020), and Galaxy Tab S6 5G (the "Accused Products"). Based on publicly available information, Multimodal believes that the Samsung Galaxy S21 depicted herein and other Samsung mobile phones that operate on the Android OS share substantially the same structure and functionality with respect to the components

which are relevant to infringement. Should discovery yield documents or information demonstrating that Defendants sell other infringing devices, Multimodal reserves the right to amend its infringement contentions to include a chart mapping the claims of the '030 Patent to the structure and function of the newly discovered devices.

Claim	Support
1[P]. A computer implemented method for recording media data, comprising: [1A] providing a gesture based media recording application executable by at least one processor configured to manage a graphical user interface of an electronic device for said recording of media data in one or more recording modes on said electronic device;	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs a computer implemented method for recording media data, comprising providing a gesture-based media recording application executable by at least one processor configured to manage a graphical user interface of an electronic device for said recording of media data in one or more recording modes on said electronic device. For example, the Accused Products are mobile phones that operate on the Android OS and feature in-built applications such as Messages by Google. Messages by Google is a communication application that provides a two way communication between a sender and a receiver and supports the use of RCS (Rich Communication Service) Protocol for messaging. Accused Products such as Samsung Galaxy S21 Ultra 5G record media data in the Messages app. For example, the Messages app is a gesture-based media recording application. A user can tap on the messages app to open the application. A user can use gestures to type a message, send a voice, video, etc. features provided by the Google Messages application.  Source: https://messages.google.com/

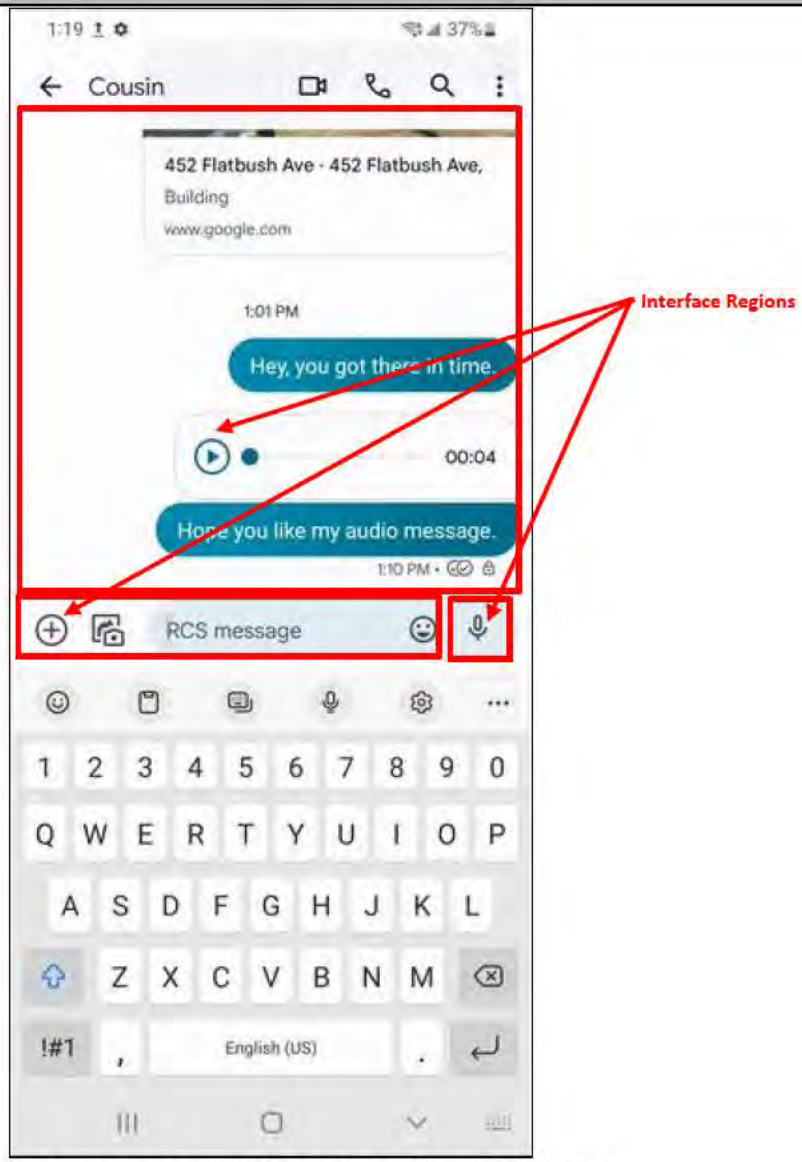
Claim	Support
	Send photos, videos, or voice messages in Messages Messages lets you send and receive photos, videos, audio files, or GIFs as multimedia over MMS. **Important:** • Some steps only work on Android 6.0 and up. Learn how to check your Android version. • To send or receive files, grant permission to Messages. Control your app permissions. **Send photos, videos, files, or GIFs** 1. Open the Messages app. 2. Open or start a conversation. 3. Tap Attach. 4. Select a file. 5. Tap Send. **Tip:** Photos or recordings that you take in Android Messages aren't saved on your device.

Claim	Support
	Send voice messages 1. Open the Messages app. 2. Open or start a conversation. 3. Press and hold Mic. 4. Record your message. 5. Tap Send. To cancel a voice message, swipe left on the chat or close the message. **Send your location** 1. Open the Messages app. 2. Open or start a conversation. 3. Tap Attach. > Location > Send. Source: https://support.google.com/messages/answer/6159880?hl=en Accused products such as Samsung Galaxy S21 Ultra 5G provides users with an option to select Google messages as a default messaging application. Further, as per information and belief, latest Samsung devices such as the Galaxy S23 series have Google Messages as the default messaging platform.

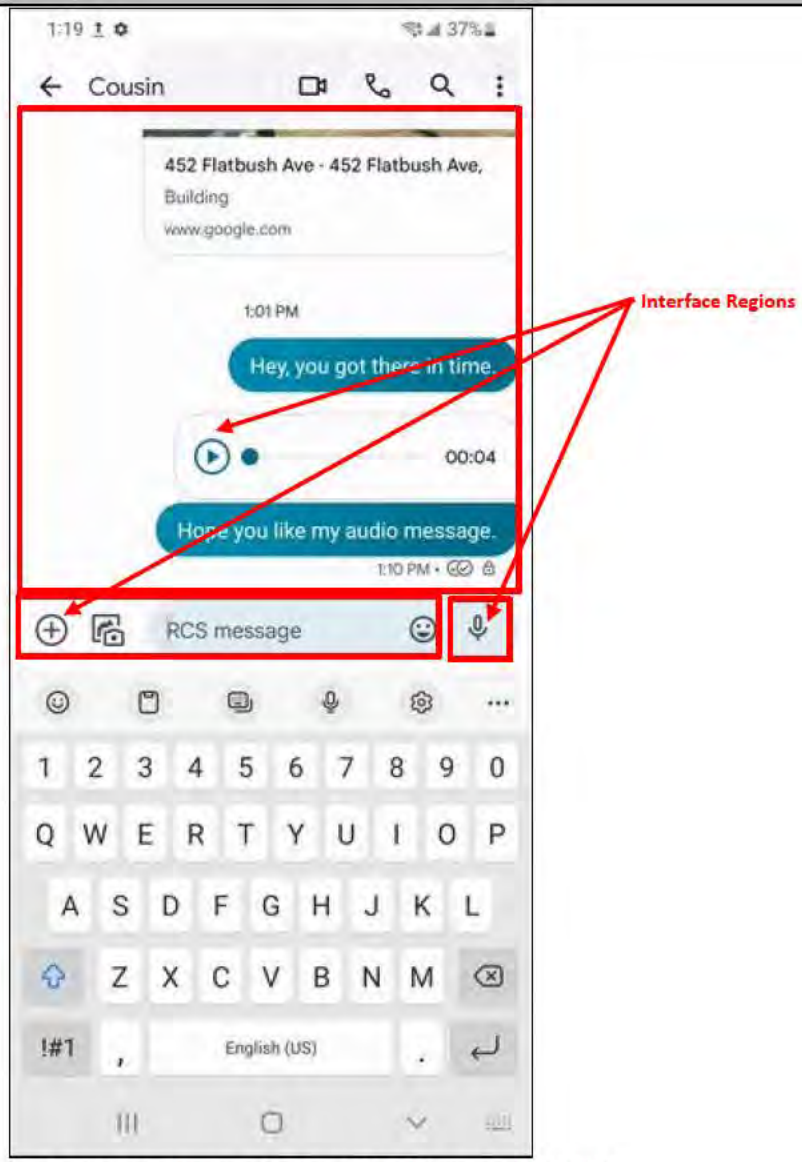
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/2023 For example, Accused Products such as Samsung Galaxy S21 Series have at least one processor configured to manage a graphical user interface for recording of media data. The Samsung Galaxy S21 Ultra 5G includes a CPU as well as a GPU, which manages the Messages application.

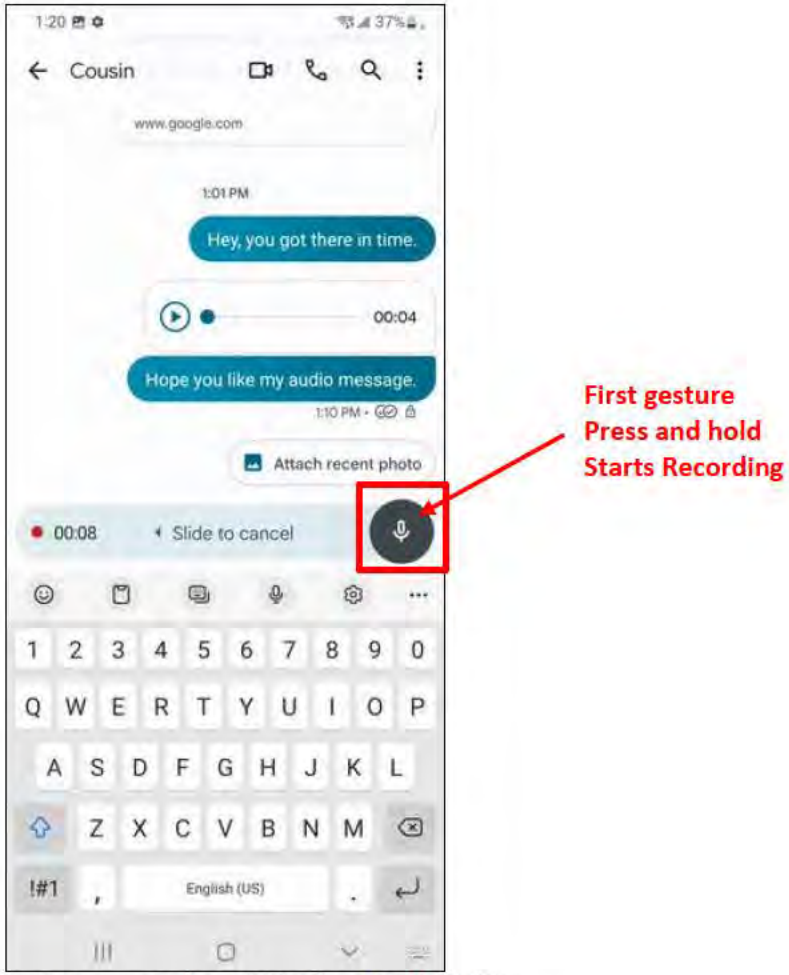
Claim	Support
	Source: https://webcache.googleusercontent.com/search?q=cache:PDONd9Jl-10J:https://www.samsung.com/us/app/smartphones/galaxy-s21-ultra-5g/performance/&cd=11&hl=en&ct=clnk&gl=us (https://www.samsung.com/us/app/smartphones/galaxy-s21-ultra-5g/performance/)

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1B] defining one or more interface regions on said graphical user interface of said electronic device by said gesture based media recording application;	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs the step of defining one or more interface regions on said graphical user interface of said electronic device by said gesture based media recording application. The Accused Products, such as the Samsung Galaxy S21 Ultra 5G, includes a GUI (graphical user interface) as part of the Google Messages (as an example of the gesture based media recording application). This GUI consists of different interface regions to interact with the user. The user can perform actions like tap, press, slide etc. in the interface regions. The following image illustrates 3 different interface regions in the Google Messages application.

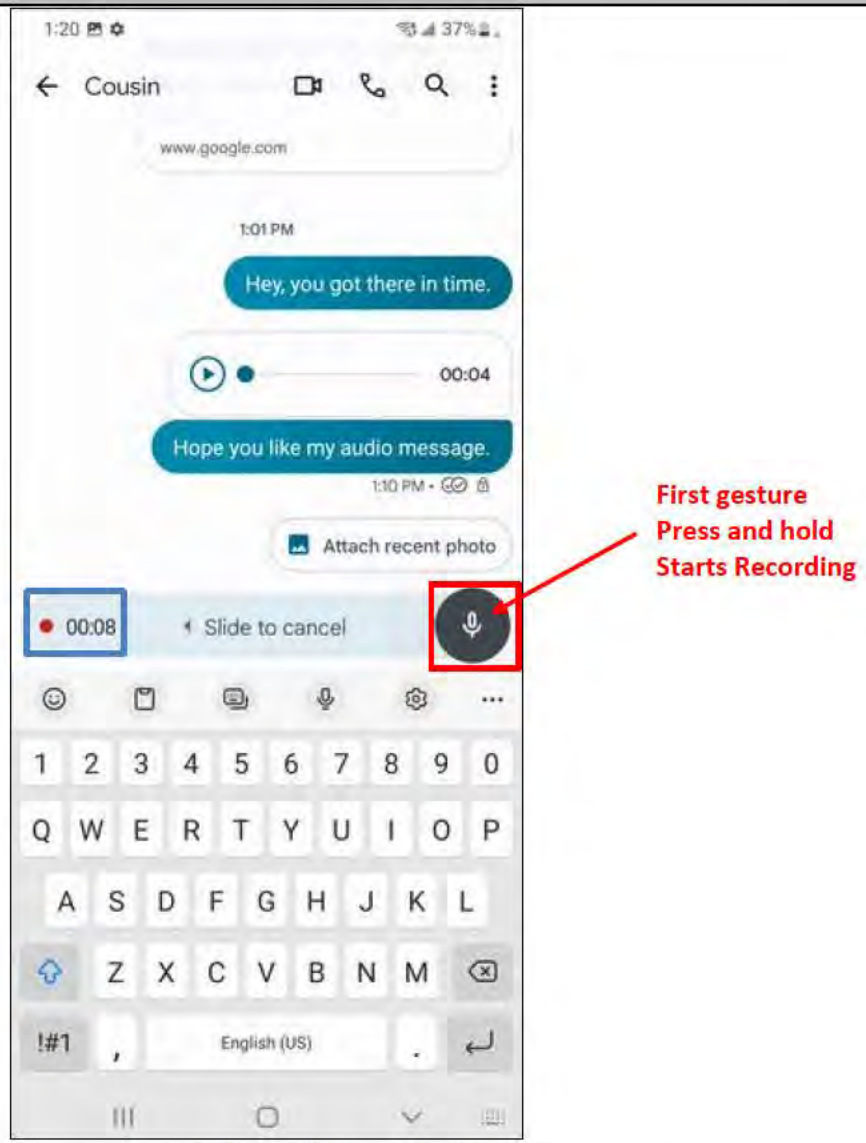
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/23

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1C] detecting a first gesture from among multiple gestures on a first of said defined interface regions, by said gesture based media recording application, wherein said first gesture is a press and hold gesture;	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs the step of detecting a first gesture from among multiple gestures on a first of said defined interface regions, by said gesture based media recording application, wherein said first gesture is a press and hold gesture. For example, the Google Messages application detects when the interface region associated with the microphone is pressed and held. The following image displays the interface region before the user performs the press and hold gesture. When the user performs the gesture of 'press and hold' on the microphone icon, the interface region consisting of the icon changes to an enlarged black circle with the microphone icon. This change indicates the detection of the press and hold gesture performed by the user.

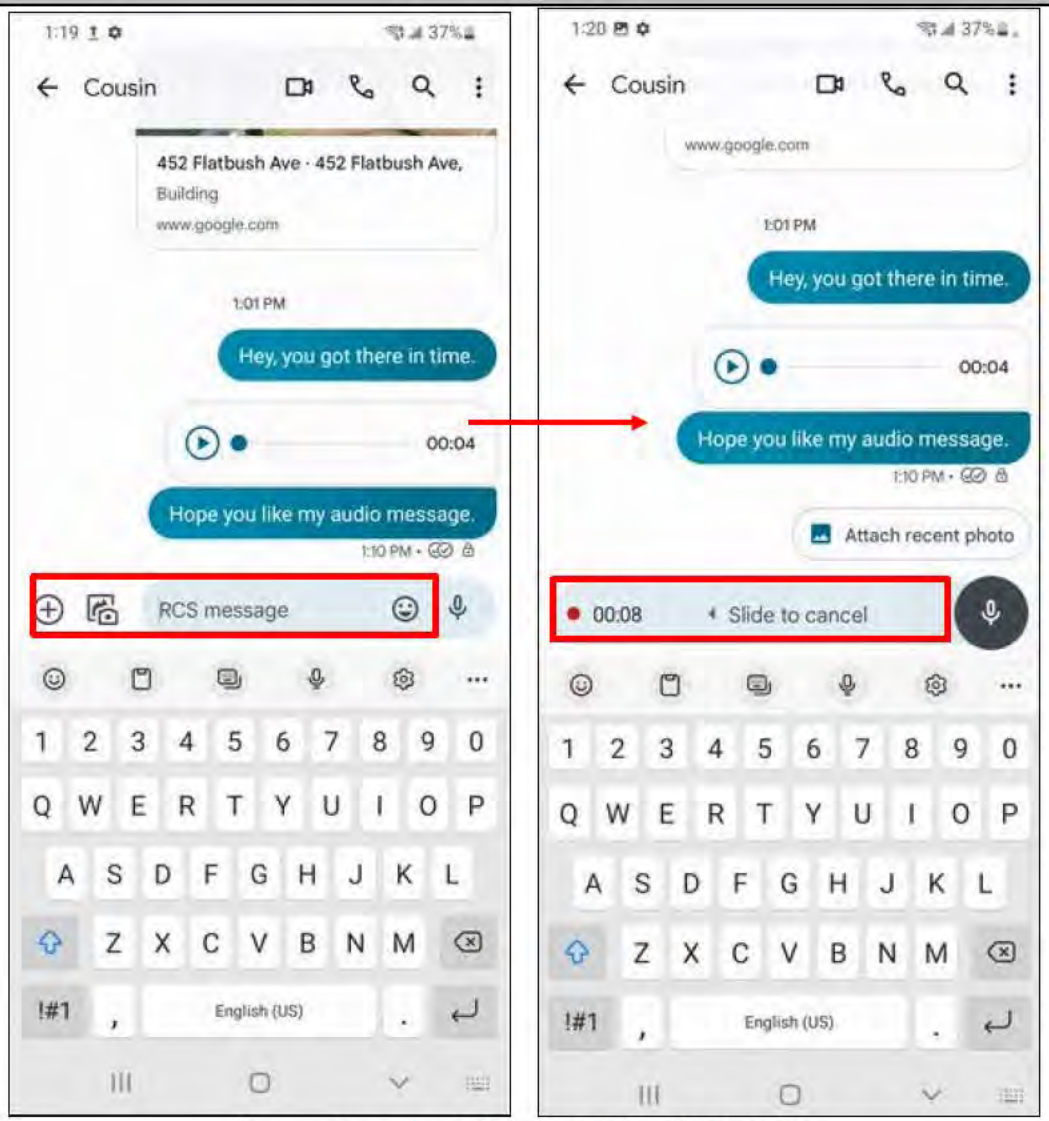
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/23

Claim	Support
	The following image displays the changed microphone icon indicating detection of the press and hold gesture performed by the user.  Source: Samsung Galaxy S21 Ultra 5G 05/24/23

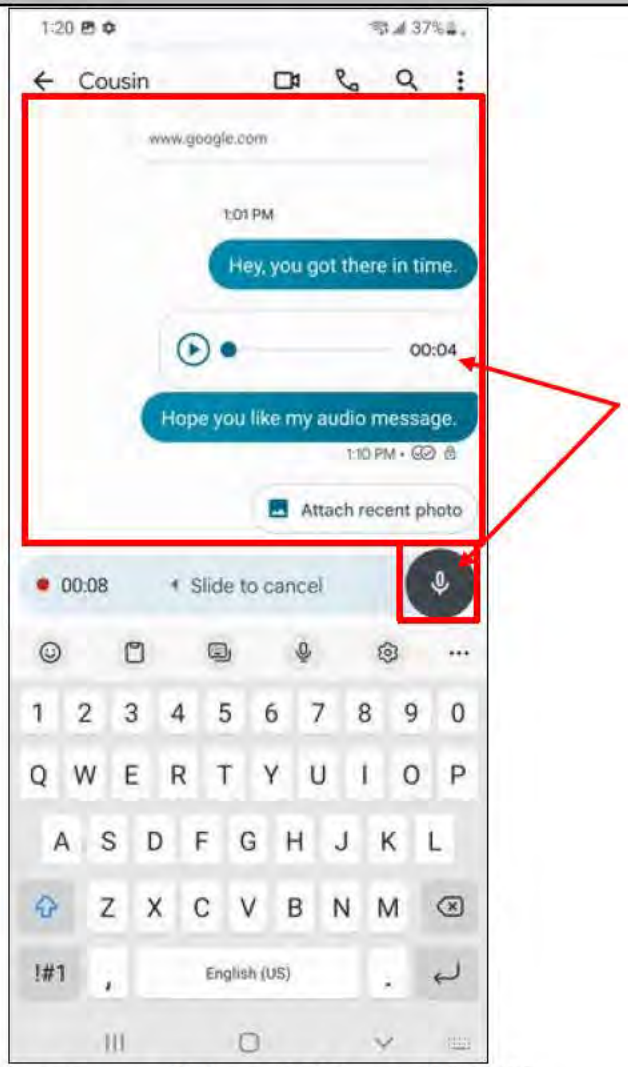
Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1D] starting said recording of media data in a push to talk (PTT) recording mode, by said gesture based media recording application, on said detection of said first gesture on said first of said defined interface regions;	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs the step of starting said recording of media data in a push to talk (PTT) recording mode, by said gesture-based media recording application, on said detection of said first gesture on said first of said defined interface regions. For example, the Google Messages application starts audio recording in a push-to-talk recording mode when the interface region associated with the microphone is pressed and held. The enlarged black circle with the microphone icon indicates the detection of the first gesture or press and hold gesture performed by the user. On this gesture, the push to talk (PTT) recording mode is initiated and the user voice recording is started. The red dot and the timer in the interface region indicate the starting timestamp of the recording of the media data in the push-to-talk recording mode by the gesture-based media recording application.

Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/23

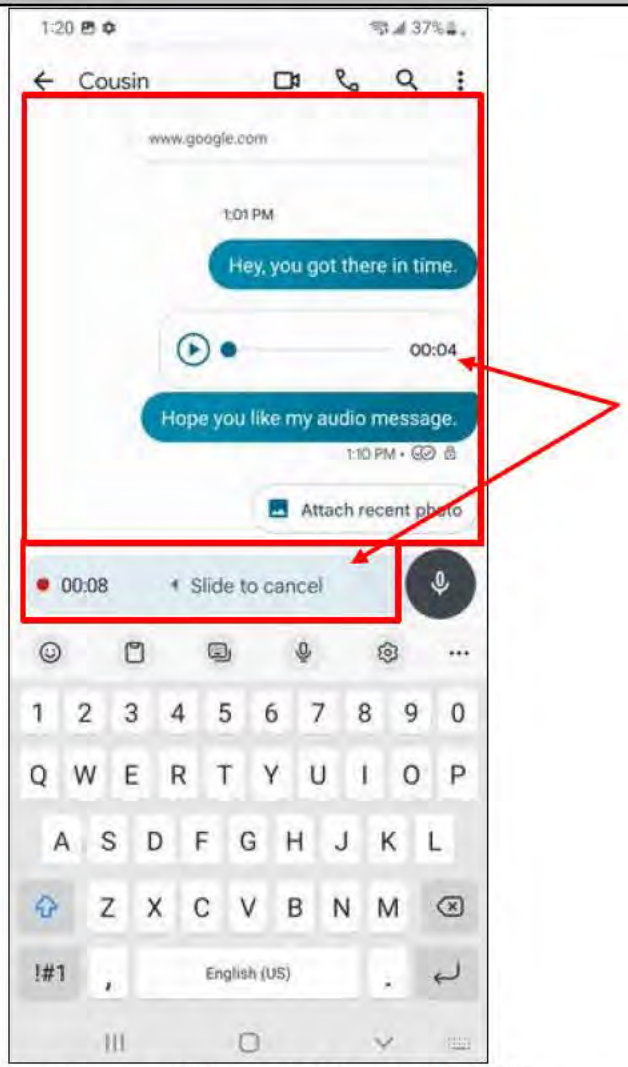
Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1E] dynamically changing, by said gesture based media recording application, functions associated with said one or more defined interface regions based on said detected first gesture on said one of said defined interface regions; and	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs the step of dynamically changing, by said gesture-based media recording application, functions associated with said one or more defined interface regions based on said detected first gesture on said one of said defined interface regions. For example, when the microphone interface region is pressed and held, Google Messages dynamically changes the functions associated with the interface region to the left of the microphone interface region. When the user performs the 'press and hold' gesture on the microphone icon, the interface region to the left of the microphone icon dynamically changes the function from sending a text message to 'Slide to Cancel'. As the user starts recording the voice, along with the 'Slide to Cancel' prompt, a red dot and a timer appears to indicate the media recording mode. The following image demonstrates the dynamic change in the interface region from 'Text message' to 'Slide to cancel' in response to the detection of the first gesture (press and hold in the microphone interface region) performed by the user. Additionally, as a user releases the microphone icon, the recording will stop and a user will get a prompt to send a message (e.g., dynamic change).

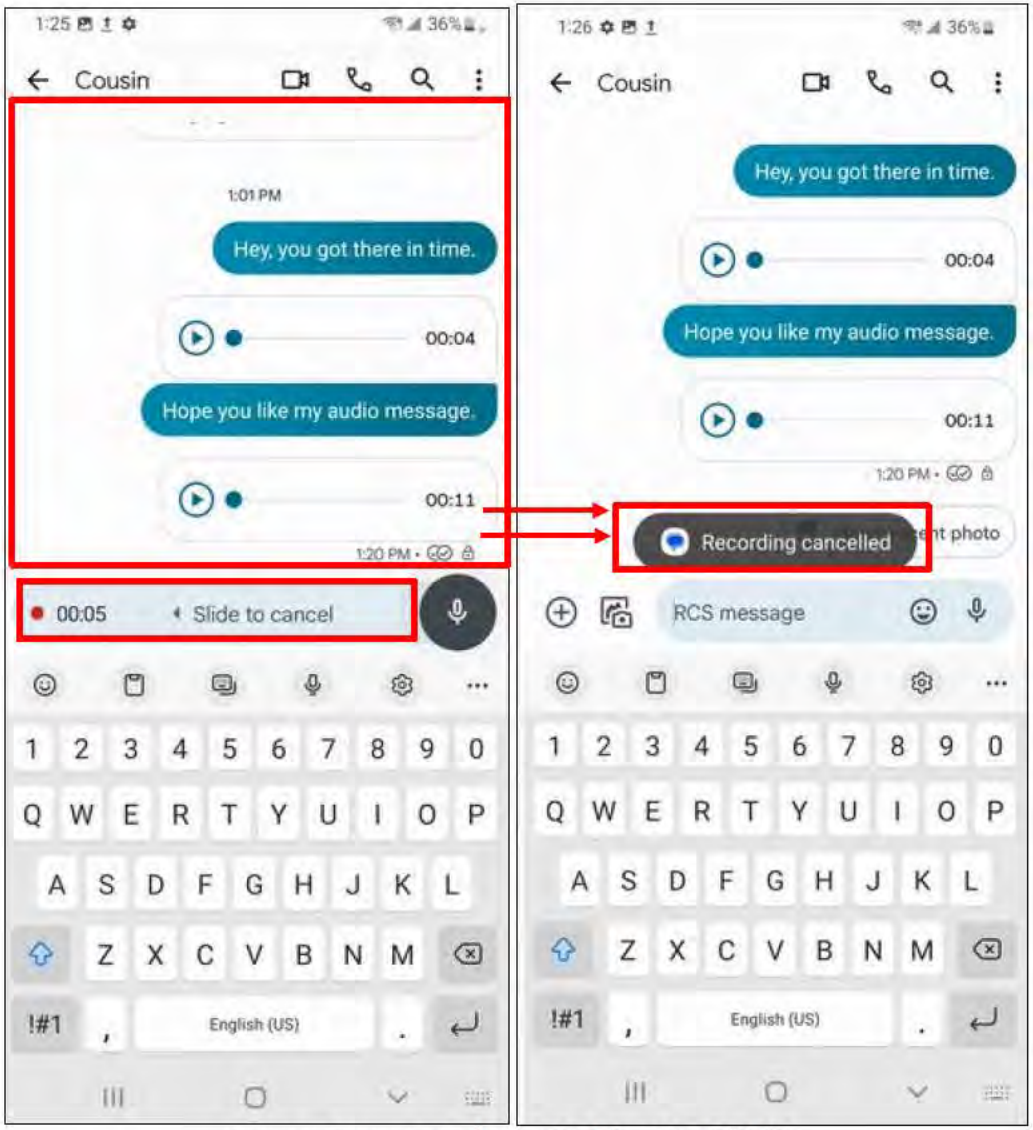
Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/23

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[1F] detecting a second gesture from among said multiple gestures, by said gesture based media recording application, wherein said second gesture is a slide and hold gesture, or a swipe and hold gesture from said first of said defined interface regions to a second of said defined interface regions proximate to said first of said defined interface regions, and wherein said recording of said media data continues uninterrupted during and	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs the step of detecting a second gesture from among said multiple gestures, by said gesture based media recording application, wherein said second gesture is a slide and hold gesture, or a swipe and hold gesture from said first of said defined interface regions to a second of said defined interface regions proximate to said first of said defined interface regions, and wherein said recording of said media data continues uninterrupted during and after performance of said second gesture. For example, when a slide and hold gesture is performed from the microphone interface region to the region directly above it, Messages continues recording media data uninterrupted.

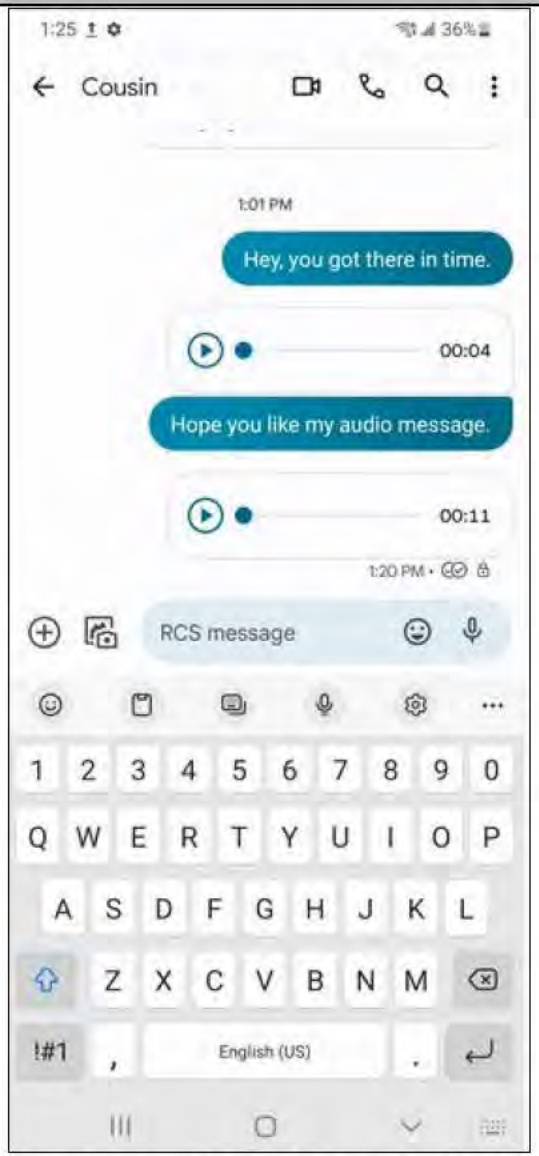
Claim	Support
after performance of said second gesture.	 Source: Samsung Galaxy S21 Ultra 5G 05/24/23 Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses.

Claim	Support
	Plaintiff reserves the right to supplement after inspection of relevant source code.
2. The computer implemented method of claim 1, further comprising: [2A]. detecting a third gesture from among said multiple gestures, by said gesture based media recording application, wherein said third gesture is a slide and release gesture, or a swipe and release gesture from said second of said defined interface regions to a third of said defined interface regions proximate to said first of said defined interface regions, and wherein said recording of	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs the computer implemented method of claim 1, further comprising detecting a third gesture from among said multiple gestures, by said gesture based media recording application, wherein said third gesture is a slide and release gesture, or a swipe and release gesture from said second of said defined interface regions to a third of said defined interface regions proximate to said first of said defined interface regions, and wherein said recording of said media data is canceled on performing said third gesture, and wherein there is no transmission of already recorded media data to another electronic device or a server. *See* claim 1. For example, after a user performs the press and hold in the microphone region, and then performs a slide and hold gesture into the second region above the microphone, the user may then perform a slide and release gesture into a third interface region. After performing the slide and release gesture, the recording of media is canceled and there is no transmission of recorded media data. The following image demonstrates cancelling of the recording on detection of the third gesture or slide and release gesture by the user. The user slides the finger from the microphone icon leftwards in the adjacent interface region. The gesture- based media recording application, detects this third gesture. On detection, it cancels the media (audio) recording. The 'Recording cancelled' popup demonstrates that the recording of the media data was cancelled.

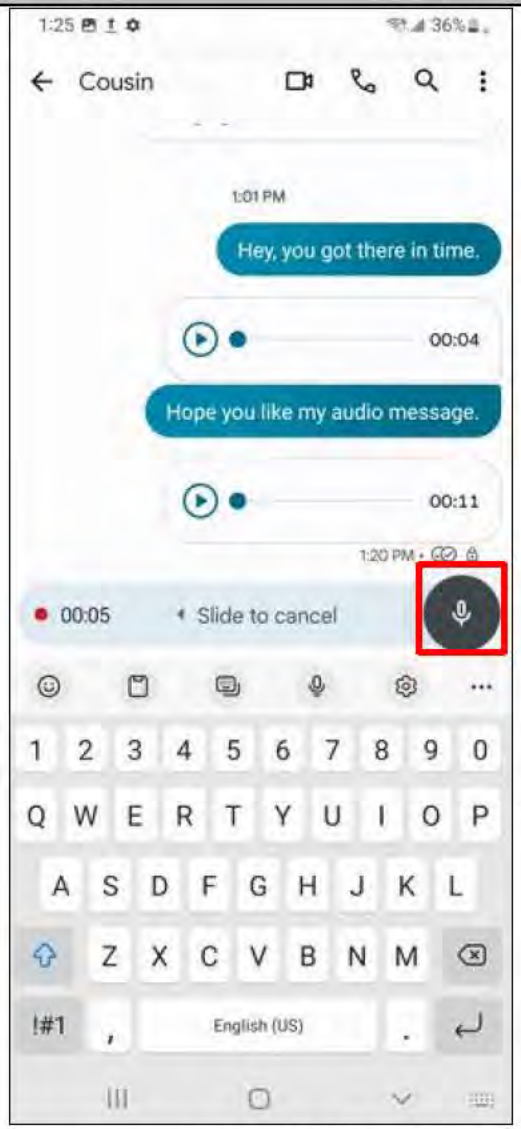
Claim	Support
said media data is canceled on performing said third gesture, and wherein there is no transmission of already recorded media data to another electronic device or a server.	 Source: Samsung Galaxy S21 Ultra 5G 05/24/23

Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/23

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
6. The computer implemented method of claim 1, further comprising sending said media data to the server via a network at one of: (a) continuously while recording said media data, (b) at predefined time intervals after initiation of said recording of said media data, and (c) after completion of said recording of said media data by said gesture based media recording application.	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, performs the computer implemented method of claim 1, further comprising sending said media data to the server via a network at one of: (a) continuously while recording said media data, (b) at predefined time intervals after initiation of said recording of said media data, and (c) after completion of said recording of said media data by said gesture based media recording application. *See* claim 1. For example, Messages sends the recorded media data to the server sometime after the completion of the recording. For example, the Messages application sends the media data to the server when sending the audio message to a recipient.

Claim	Support
	 Source: Samsung Galaxy S21 Ultra 5G 05/24/2023

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
7. The computer implemented method of claim 1, wherein said media data comprises one of audio data, video data, audiovisual data, image data, multimedia data, and any combination thereof.	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, the computer implemented method of claim 1, wherein said media data comprises one of audio data, video data, audiovisual data, image data, multimedia data, and any combination thereof. *See* claim 1. For example, the media data is audio data.

Claim	Support
	 First gesture Press and Hold starts recording Source: Samsung Galaxy S21 Ultra 5G 05/24/23

Claim	Support
	Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
8. A computer implemented system for recording media data, comprising: [8A]. a processor;	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes a computer implemented system for recording media data, comprising a processor. For example, the Accused Products are mobile phones that operate on the Android OS and feature Google communication applications such as Messages by Google. For example, the Accused Products are used to record media data in the Messages app, which is a heavily featured application for Android. For example, the Accused Products have at least one processor configured to manage a graphical user interface for recording of media data. For example, the Samsung Galaxy S21 Ultra 5G includes a CPU as well as a GPU, which manages the Messages application.

Claim	Support
	 Source: https://webcache.googleusercontent.com/search?q=cache:PDONd9Jl-10J:https://www.samsung.com/us/app/smartphones/galaxy-s21-ultra-5g/performance/&cd=11&hl=en&ct=clnk&gl=us (https://www.samsung.com/us/app/smartphones/galaxy-s21-ultra-5g/performance/) Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[8B]. a non-transitory computer readable storage medium com-municatively	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes a non-transitory computer readable storage medium communicatively coupled to said processor, said non-transitory computer readable storage medium configured to store a gesture based media recording application, wherein said gesture based media recording application, when executed by said processor, manages a graphical user interface of an electronic device for said recording of media data. *See* claim 1[A].

Claim	Support
coupled to said processor, said non-transitory computer readable storage medium configured to store a gesture based media recording application, wherein said gesture based media recording application, when executed by said processor, manages a graphical user interface of an electronic device for said recording of media data;	For example, the Accused Products, including the Samsung Galaxy S21 Ultra 5G, include a non-transitory computer readable storage medium that stores applications such as Messages. For example, the Samsung Galaxy S21 Ultra 5G includes a CPU as well as a GPU, which manages the Messages application.

Claim	Support
	Source: https://webcache.googleusercontent.com/search?q=cache:PDONd9Jl-10J:https://www.samsung.com/us/app/smartphones/galaxy-s21-ultra-5g/performance/&cd=11&hl=en&ct=clnk&gl=us (https://www.samsung.com/us/app/smartphones/galaxy-s21-ultra-5g/performance/) Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[8C]. said gesture based media recording application comprising: [8C(i)]. an interface definition module configured to define a plurality of interface regions on said graphical user interface of said electronic device;	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes said gesture based media recording application comprising an interface definition module configured to define a plurality of interface regions on said graphical user interface of said electronic device. To the extent the term "interface definition module configured to define a plurality of interface regions on said graphical user interface of said electronic device" is construed under 112 p. 6, the accused products contain the structure necessary to perform the claimed function. For example, the structure includes a software component of the gesture based media recording application that is (a) configured to define multiple interface regions on the graphical user interface and associate a predefined function with each of the defined user interface regions; and (b) configured to dynamically change the functionality of the interface regions to a different predefined function. This structure includes software stored in a memory. *See* claim 1[B]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[8C(ii)]. a detection module configured to detect a first gesture from among multiple	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes a detection module configured to detect a first gesture from among multiple gestures on a first of said defined interface regions, wherein said first gesture is a press and hold gesture. To the extent the term "detection module configured to detect a first gesture from among multiple gestures on a first of said defined interface regions" is construed under 112 p. 6, the accused products contain the structure necessary to perform the claimed function. For example, the structure includes a software component of the gesture based media recording application

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gestures on a first of said defined interface regions, wherein said first gesture is a press and hold gesture;	configured to detect one or more physical touch or other gesture on a defined region of a graphical user interface. This structure includes software stored in a memory. *See* claim 1[C]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[8C(iii)]. an action management module configured to start said recording of media data in a push to talk (PTT) recording mode, on said detection of said first gesture on said first of said defined interface regions;	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes an action management module configured to start said recording of media data in a push to talk (PTT) recording mode, on said detection of said first gesture on said first of said defined interface regions. To the extent the term "action management module configured to start said recording of media data in a push to talk (PTT) recording mode, on said detection of said first gesture on said first of said defined interface regions" is construed under 112 p. 6, the accused products contain the structure necessary to perform the claimed function. For example, the structure includes a software component of the gesture based media recording application configured to perform a predefined action based on the detection of a gesture on a defined region of a graphical user interface. This structure includes software stored in a memory. *See* claim 1[B] and claim 1[D]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[8C(iv)]. said interface definition module configured to dynamically	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes said interface definition module configured to dynamically change functions associated with said one or more defined interface regions based on said detected first gesture on said one of said defined interface regions. To the extent the term "interface definition module configured to dynamically change functions associated with said one or more defined interface regions based on said detected first gesture on said one of said defined interface regions" is construed under 112 p. 6, the accused products contain the structure necessary to perform the claimed function. For example, the structure includes a software component a software component of the gesture based media recording application that is (a) configured to

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change functions associated with said one or more defined interface regions based on said detected first gesture on said one of said defined interface regions; and	define multiple interface regions on the graphical user interface and associate a predefined function with each of the defined user interface regions and (b) configured to dynamically change the functionality of the interface regions to a different predefined function; and equivalents thereof. This structure includes software stored in a memory. *See* claim 1[E]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.
[8C(v)]. said detection module further configured to detect a second gesture from among said multiple gestures, wherein said second gesture is a slide and hold gesture, or a swipe and hold gesture from said first of said defined interface regions to a second of said defined interface regions proximate to said first of	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes said detection module further configured to detect a second gesture from among said multiple gestures, wherein said second gesture is a slide and hold gesture, or a swipe and hold gesture from said first of said defined interface regions to a second of said defined interface regions proximate to said first of said defined interface regions, and wherein said recording of said media data continues uninterrupted during and after performance of said second gesture. *See* claim 1[F]. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

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said defined interface regions, and wherein said recording of said media data continues uninterrupted during and after performance of said second gesture.	
9. The computer implemented system of claim 8, further comprising: [9A]. said detection module further configured to detect a third gesture from among said multiple gestures, wherein said third gesture is a slide and release gesture, or a swipe and release gesture	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes the computer implemented system of claim 8, further comprising said detection module further configured to detect a third gesture from among said multiple gestures, wherein said third gesture is a slide and release gesture, or a swipe and release gesture from said second of said defined interface regions to a third of said defined interface regions proximate to said first of said defined interface regions, and wherein said recording of media data is canceled on performing said third gesture, and wherein there is no transmission of already recorded media data to another electronic device or a server. *See* claims 2, 8. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.

Claim	Support
from said second of said defined interface regions to a third of said defined interface regions proximate to said first of said defined interface regions, and wherein said recording of media data is canceled on performing said third gesture, and wherein there is no transmission of already recorded media data to another electronic device or a server.	
13. The computer implemented system of claim 8, wherein said gesture based media recording application further	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes the computer implemented system of claim 8, wherein said gesture based media recording application further comprises a media recording module configured to send said media data to the server via a network at one of: (a) continuously while recording said media data, (b) at predefined time intervals after initiation of said recording of said media data, and (c) after completion of said recording of said media data. *See* claims 6, 8. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses.

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comprises a media recording module configured to send said media data to the server via a network at one of: (a) continuously while recording said media data, (b) at predefined time intervals after initiation of said recording of said media data, and (c) after completion of said recording of said media data.	Plaintiff reserves the right to supplement after inspection of relevant source code.
14. The computer implemented system of claim 8, wherein said media data comprises one of audio data, video data, audiovisual data, image data, multimedia data, and any combination thereof.	Each accused Samsung device, including the Samsung Galaxy S21 Ultra 5G, includes the computer implemented system of claim 8, wherein said media data comprises one of audio data, video data, audiovisual data, image data, multimedia data, and any combination thereof. *See* claims 7, 8. Plaintiff contends that this element is literally present in the accused Samsung products. Plaintiff reserves the right to rely upon the Doctrine of Equivalents as discovery progresses. Plaintiff reserves the right to supplement after inspection of relevant source code.