

EXHIBIT E

This claim chart is meant to be illustrative for purposes of meeting Plaintiff's pleading obligations and should not be construed as binding or limiting.



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(12) **United States Patent**
Moisa

(10) **Patent No.:** US 10,009,304 B2
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(54) **METHOD AND SYSTEM FOR CORRELATING CONVERSATIONS IN MESSAGING ENVIRONMENT**

(58) **Field of Classification Search**
CPC H04L 51/04; H04L 69/329; H04L 67/24;
H04L 51/066; H04L 51/34; H04L 51/046;
(Continued)

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(56) **References Cited**

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U.S. PATENT DOCUMENTS

(73) Assignee: **CTEXT TECHNOLOGY LLC**, New York, NY (US)

7,185,057 B2 2/2007 Brown et al.
7,200,635 B2 4/2007 Yashchin et al.
(Continued)

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 57 days.
This patent is subject to a terminal disclaimer.

FOREIGN PATENT DOCUMENTS

WO 2011005641 A2 1/2011
WO 2013113093 A1 8/2013
WO 2013116848 A2 8/2013

(21) Appl. No.: **14/972,919**

OTHER PUBLICATIONS

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International Search Report with Written Opinion, dated May 21, 2014, for corresponding International Application No. PCT/US2014/072149.

(65) **Prior Publication Data**

US 2016/0149847 A1 May 26, 2016

Related U.S. Application Data

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(Continued)

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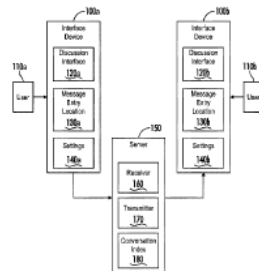
(57) **ABSTRACT**

A computer based method for correlating conversations is provided, including the steps of providing a discussion interface at an interface device, receiving an indication that one of several messages displayed at the discussion interface is part of an active conversation, providing a message entry location for inputting new messages associated with the discussion interface, and receiving new messages at the message entry location. New messages received are automatically associated with the active conversation by displaying them with a visual cue shared by all messages associated with the active conversation.

17 Claims, 20 Drawing Sheets

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G06F 15/16 (2006.01)
H04L 12/58 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC **H04L 51/16** (2013.01); **G06Q 10/107** (2013.01); **G06T 11/001** (2013.01); **H04L 51/04** (2013.01);
(Continued)



U.S. Patent No. 10,009,304

- “Method and System for Correlating Conversations in Messaging Environment”
- Filed Dec. 17, 2015; provisional priority claimed back to Oct. 8, 2014

Infringed Claims

- This chart includes infringement evidence for independent claims 1 (method) and 14 (system)
- In addition to those claims, preliminary analysis reveals that at least dependent claims 2, 6, 7, 11, 12, and 15 are infringed

1. A computer based method for correlating conversations in a messaging environment, the method comprising:
providing a discussion interface at a first interface device, wherein the discussion interface displays a first message and a second message;
providing a message entry location for inputting new messages, the message entry location visually associated with the discussion interface,
receiving, at the first interface device, a first indication that a first new message is responsive to the first message;
changing a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the first message;
receiving the first new message at the message entry location; and
displaying the first new message with the first visual cue applied within the discussion interface at the first interface device,
wherein the first visual cue is shared by the first message and the first new message.

14. A system for correlating conversations, the system comprising an interface device in communication with a computerized network, the interface device comprising:
a processor for implementing a software application on the interface device;
a memory for storing the software application and for storing a plurality of messages in accordance with the software application;
a transmission unit for transmitting messages to the computerized network; and
a display,
wherein the software application comprises instructions for:
providing a discussion interface at the display of the user interface device for displaying messages stored in the memory;
providing a message entry location for entering new messages, the message entry location visually associated with the discussion interface;
recording an indication that a first new message will be responsive to one of several messages;
changing a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the one of several messages;
receiving at least one new message entered at the message entry location;
transmitting, using the transmission unit, the at least one new message to the computerized network incorporating an indication of which one of the several messages the new message is responsive to; and
displaying, at the display, the at least one new message alongside the one of the several messages and incorporating the first visual cue into the display of the first new message and the one of the several messages.

- Apple products such as its iPhone, iPad, iPod touch, watch, and Mac computers use the Messages app
- The Messages app allows replies to specific messages as shown in the introductory excerpt on the right
- That reply functionality forms the basis for the infringement allegations in the chart

Reply to specific messages on your iPhone, iPad, and iPod touch

With iOS 14 and iPadOS 14 and later, you can reply directly to a specific message and use mentions to call attention to certain messages and people.

How to reply to a specific message

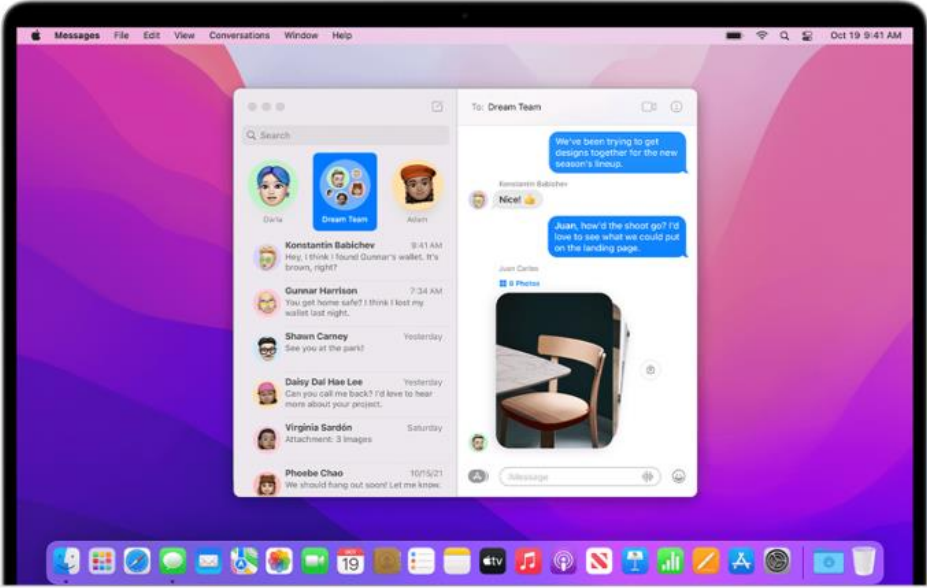
1. Open a Messages conversation.
2. Touch and hold a message bubble, then tap the Reply button ↩.
3. Type your message, then tap the Send button ➤.

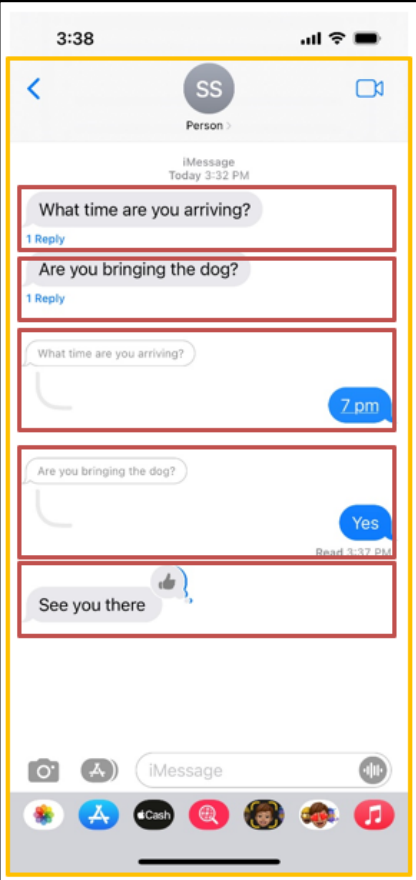
You can reply to a specific message in conversations with one person and in groups.

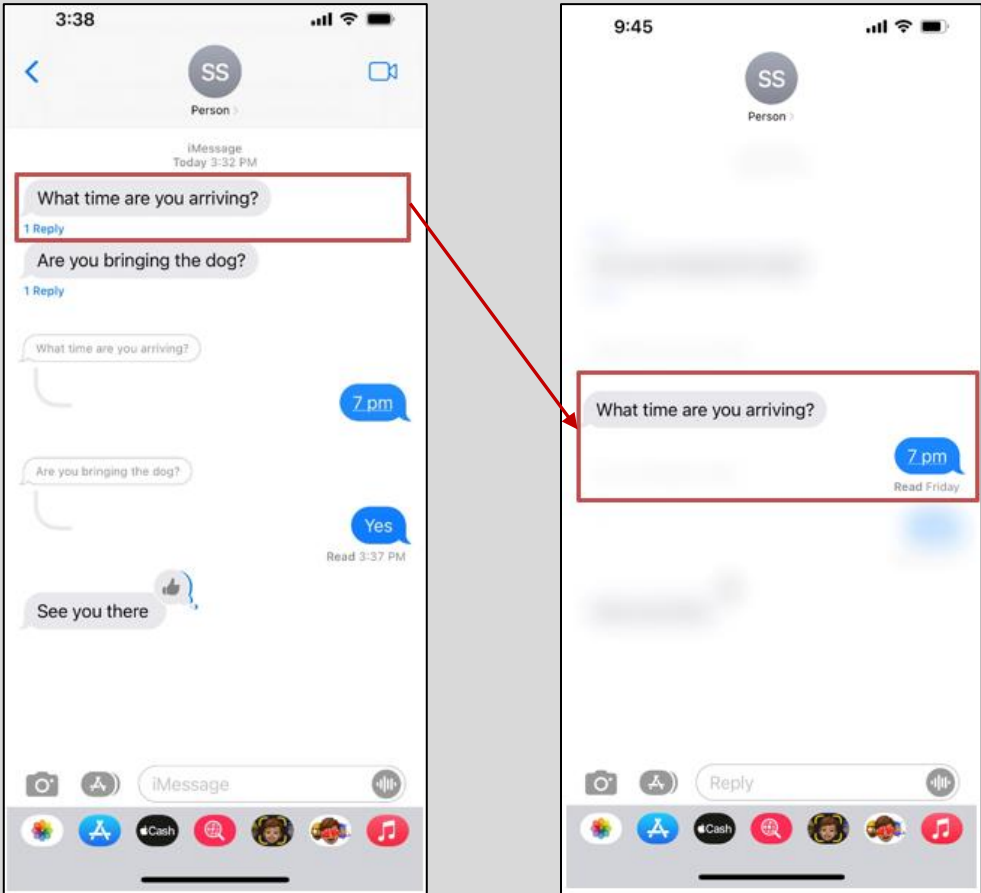


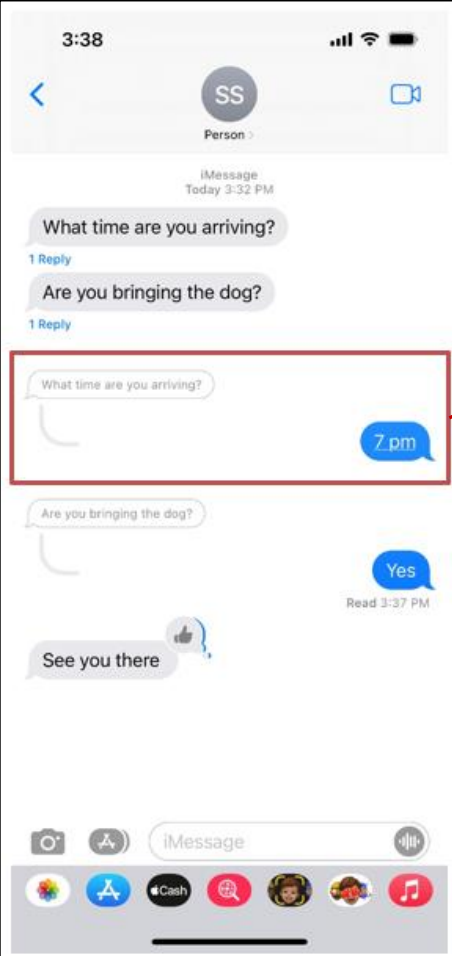
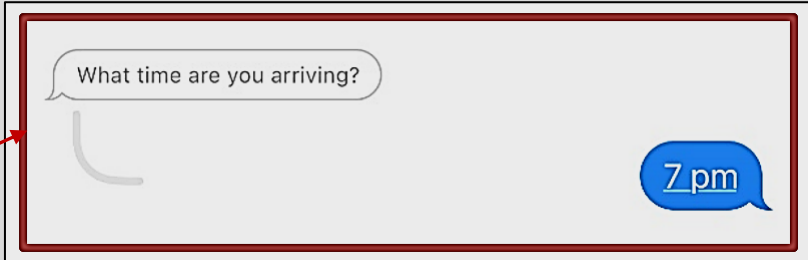
<https://support.apple.com/en-us/HT211303>

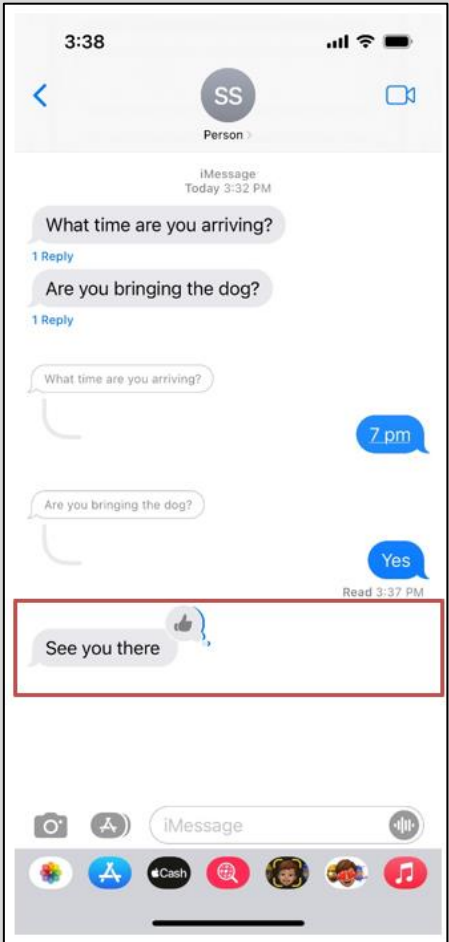
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[pre] A computer based method for correlating conversations in a messaging environment, the method comprising:	Apple makes uses, imports, sells, and/or offers for sale devices that feature the Messages app with iMessage functionality. Those devices include iPhones, iPads, iPod Touches, Apple watches, and Mac computers. (the “Accused Devices”). The excerpts below from Apple’s support website introduces the Messages app used on the iPhone, iPad, iPod Touch, and Apple Watch, which includes iMessage functionality. Use Messages on your iPhone, iPad, or iPod touch Stay connected to the conversations that matter the most. Send texts, photos, videos, and more. Then personalize your messages with animated effects, pin your important conversations, send inline replies, and add mentions. Send a message 1. Open Messages. 2. Tap the Compose button  to start a new message. Or go to an existing conversation. 3. Type your message, then tap the Send button . With iOS 14 and iPadOS 14 and later, you can also use inline replies and mentions to call attention to specific messages and people within the messages. https://support.apple.com/en-us/HT201287 Send a quick reaction with a tapback 1. Go to the Messages app  on your Apple Watch. 2. Double-tap a specific message in a conversation, then choose a Tapback—like a thumbs up or heart. https://support.apple.com/guide/watch/send-messages-apd92a90f882/watchos

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[pre] A computer based method for correlating conversations in a messaging environment, the method comprising:	The excerpt below from Apple's support website shows the Messages app used on Mac computers and shows that each of the Mac, iPhone, iPad, and iPod Touch products use iMessage functionality. Use Messages on your Mac Use the Messages app to send unlimited messages to any Mac, iPhone, iPad, or iPod touch using iMessage. Apple's secure-messaging service. If you have an iPhone, you can also set up text message forwarding to send SMS and MMS messages.  https://support.apple.com/en-us/HT202549

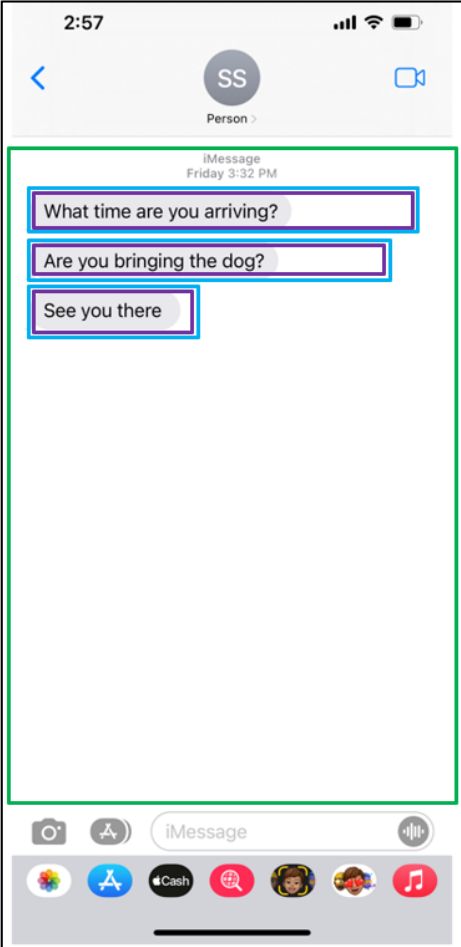
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[pre] A computer based method for correlating conversations in a messaging environment, the method comprising:	The Messages app with iMessage functionality includes a computer based method for correlating conversations in a messaging environment comprising the claimed elements as shown in the following slides. An example of correlated conversations in a messaging environment is shown below. The messaging environment comprises, for example, the overall Messages app. The conversations are correlated based on correlated replies as seen in the example below. 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[pre] A computer based method for correlating conversations in a messaging environment, the method comprising:	The Messages app correlates conversations in at least three ways. In the first way, a message is correlated with its replies by indicating the number of replies directly below the message. If a user then clicks on the number of replies, (e.g., “1 Reply”) below, then the message is shown together with its reply, while the rest of the messaging environment is blurred in the background. 

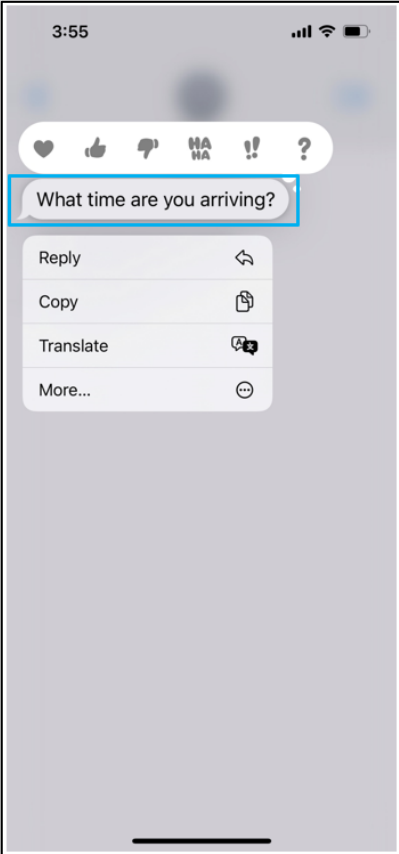
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[pre] A computer based method for correlating conversations in a messaging environment, the method comprising:	In the second way of correlating conversations, the original message is reproduced in a different format with the reply inline below it and with a curved line indicating the message to which the reply is responding.  

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[pre] A computer based method for correlating conversations in a messaging environment, the method comprising:	In the third way of correlating conversations, replies to a message such as a “thumbs up” are correlated by placing the reply adjacent to the message in a bubble from to the message. These kind of replies are referred to as a “Tapback” in this chart.  The screenshot shows an iMessage conversation with a contact named 'Person'. The messages are as follows: - Person: "What time are you arriving?" (1 Reply) - Person: "Are you bringing the dog?" (1 Reply) - Person: "What time are you arriving?" - Person: "Are you bringing the dog?" - User: "7pm" - User: "Yes" - User: "See you there" (This message is highlighted with a red box and has a thumbs up tapback icon next to it) The bottom of the screen shows the iMessage input area with a camera icon, an App Store icon, a search bar, and a microphone icon. The dock at the very bottom contains icons for Photos, App Store, Cash, Maps, Messages, and Music.

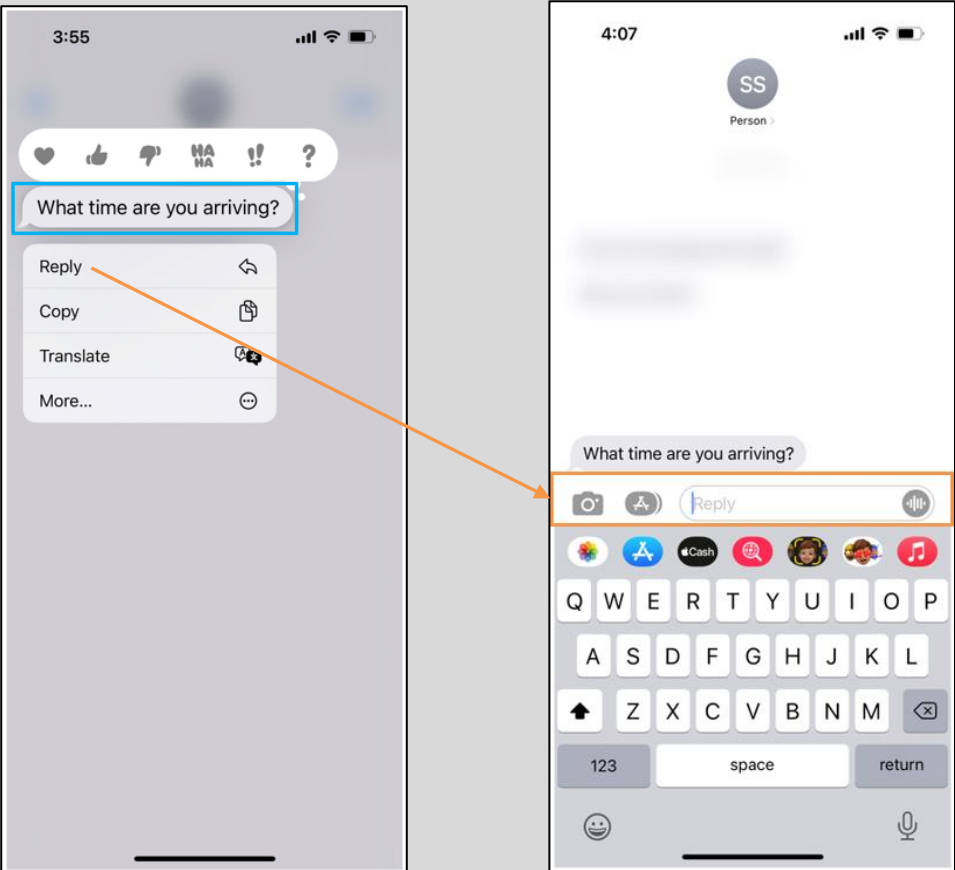
'304 Patent at 1[a] – Apple Claim Chart

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[a] providing a discussion interface at a first interface device, wherein the discussion interface displays a first message and a second message;	The Messages app provides a discussion interface (e.g., the area displaying the messages) at a first interface device (e.g., the phone, iPod, tablet, or Mac) running the Messages app. The discussion interface displays any number of messages, including a first message and a second message. 

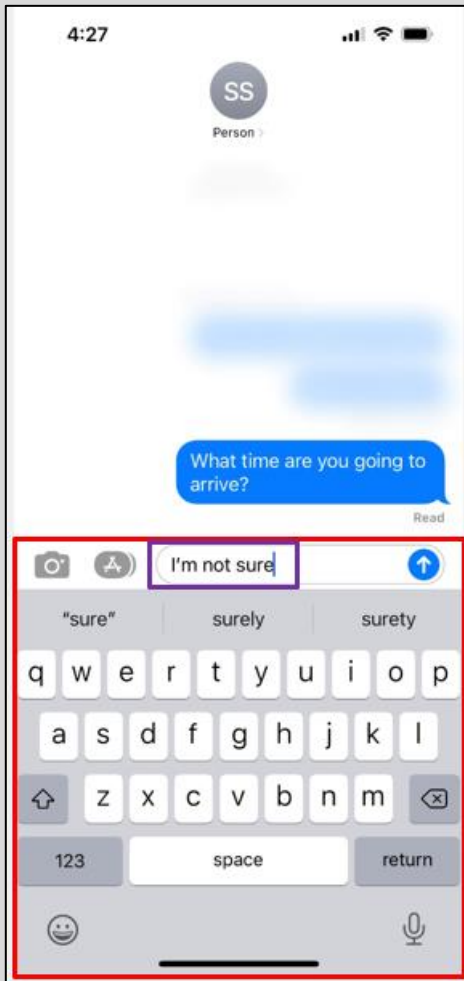
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[b] providing a message entry location for inputting new messages, the message entry location visually associated with the discussion interface,	The Messages app provides a message entry location (e.g., the input box shown below). That message entry location is visually associated with the discussion interface by appearing adjacent to the bottom of the discussion interface. 

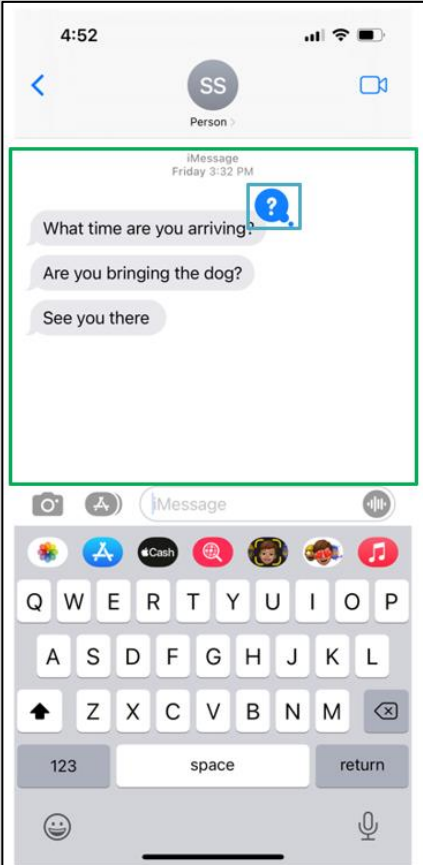
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[c] receiving, at the first interface device, a first indication that a first new message is responsive to the first message;	The Messages app receives, at the first interface device (e.g., the phone, iPod, tablet, or Mac), a first indication (e.g., an input caused by a tap or hold on the first message, which can be followed by a tap on “Reply”) that a first new message is responsive to the first message. For example, when the iPhone running the Messages app in the example below receives an input caused by pressing the first message (“What time are you going to arrive?”), that indication causes the following change in the display.  The screenshot shows an iPhone screen with the time 3:55 and signal/battery icons at the top. A message bubble contains the text "What time are you arriving?". A blue rectangular box highlights this message bubble. A context menu is open over the message bubble, displaying the following options: "Reply" with a reply icon, "Copy" with a copy icon, "Translate" with a translate icon, and "More..." with a more icon. Above the message bubble, there is a row of reaction icons: a heart, a thumbs up, a thumbs down, "HA HA", "!!", and a question mark.

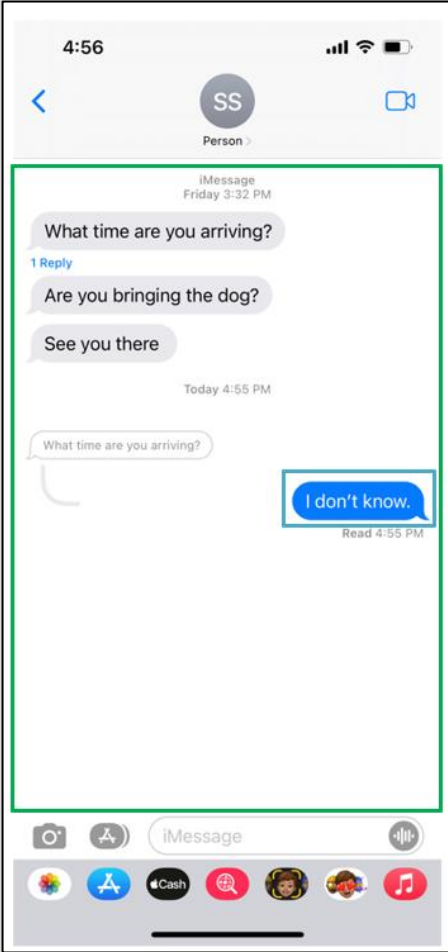
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[d] changing a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the first message;	The Messages app changes a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the first message in at least two ways. The first example relates to responding via the Tapback options such as the heart, thumbs up, or question mark. In this example, a visual element of the message entry location is changed to match a first visual cue shared with the first message upon receipt of a first indication (e.g., when the first message is pressed). Specifically, the message entry location is moved in close proximity to and changed to a bubble of possible reply options above the first message. Note that this infringement read aligns with the disclosure in the specification. <i>See, e.g.,</i> '904 patent at 2:49-53 (“The visual cue may be a proximity from message to message, such that a new message is displayed at a location within the discussion interface in closer proximity to the first message relative to the proximity of the second message to the first message.”); 11:28-32 (“In some embodiments, the message entry location may be modified so that text entered appears in the same format and with the same visual cues as will appear when the text is transmitted, while in others, a tint is applied so that the currently active conversation is clear.”).

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[d] changing a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the first message;	The second example that meets this limitation relates to responding via the “Reply” option. Once the indication is received via a “Reply” input, at least two visual elements of the message entry location are changed to match a first visual cue shared with the first message. First, the input box for the message entry location now appears in close proximity to the first message. Second, the message entry location includes the text “Reply” instead of “iMessage.”  The representative proof consists of two screenshots from an iPhone. The left screenshot, taken at 3:55, shows a message bubble with the text 'What time are you arriving?'. A context menu is open below the message, with the 'Reply' option highlighted. An orange arrow points from the 'Reply' option in the context menu to the 'Reply' input box in the right screenshot. The right screenshot, taken at 4:07, shows the same message bubble. The input box below the message now contains the text 'Reply' and a microphone icon, matching the visual cue of the first message. The input box is highlighted with an orange border.

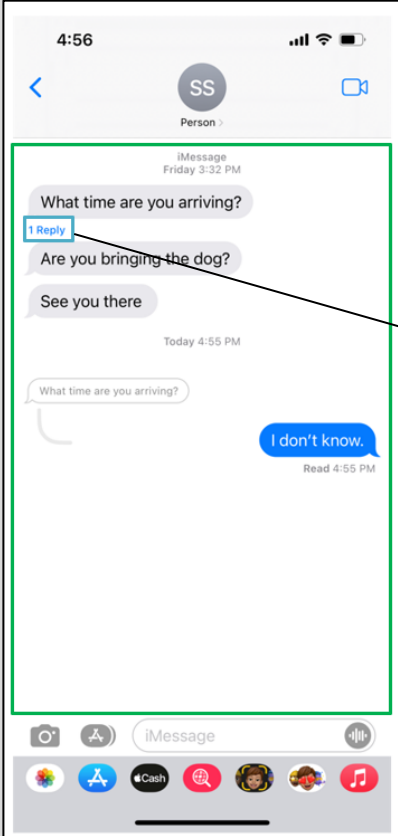
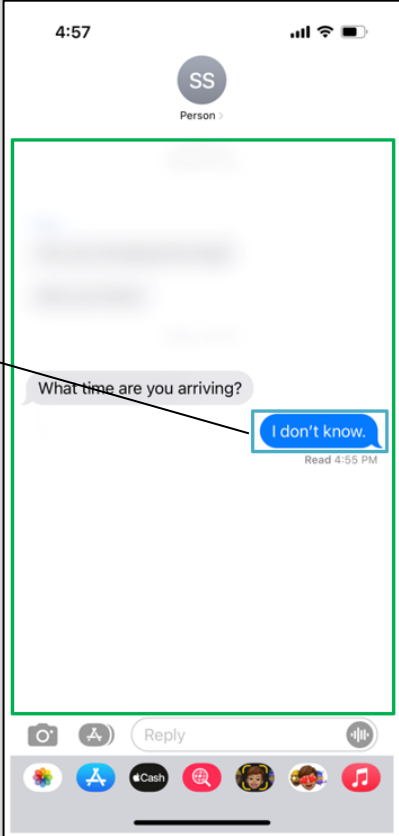
'304 Patent at 1[e] – Apple Claim Chart

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[e] receiving the first new message at the message entry location; and	The Messages app receives the first new message at the message entry location. In the two examples above, the Messages app receives the “?” Tapback or the text reply “I’m not sure.”  

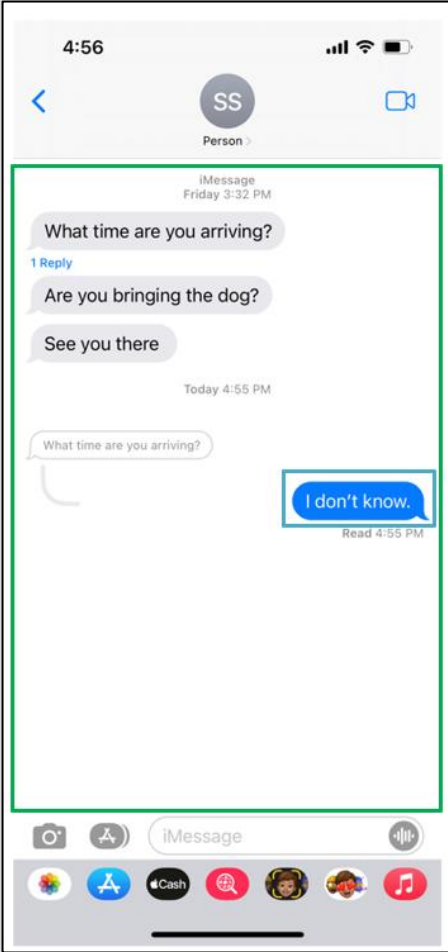
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[f] displaying the first new message with the first visual cue applied within the discussion interface at the first interface device,	The Messages app displays the first new message with the first visual cue applied within the discussion interface at the first interface device. In the Tapback example shown below, the “?” is displayed with the first visual cue applied (e.g., it is in close proximity to and in a bubble above the first message) within the discussion interface (e.g., the area where the messages are displayed) of the first interface device (e.g., the iPhone). 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[f] displaying the first new message with the first visual cue applied within the discussion interface at the first interface device,	In the second way the new message (“I don’t know.”) is displayed, the first message (“What time are you going to arrive?”) is repeated and the first new message (“I don’t know.”) is displayed directly below the repeated first message. Thus again, the visual cue of proximity is applied. 

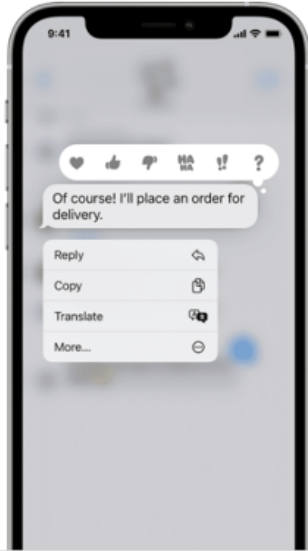
304 Patent at 1[f] – Apple Claim Chart

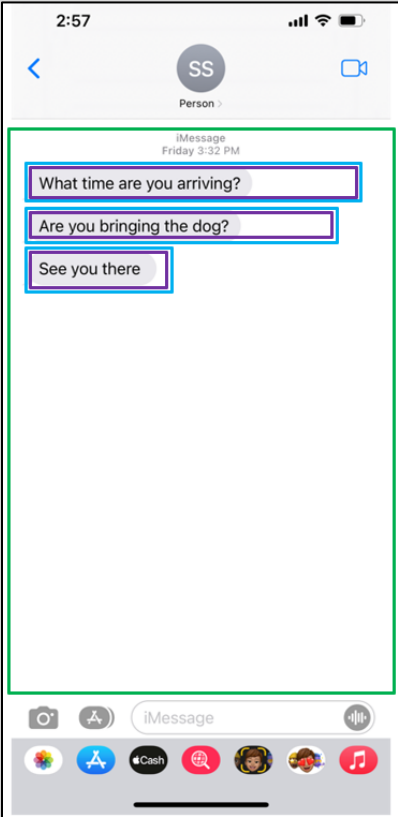
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[f] displaying the first new message with the first visual cue applied within the discussion interface at the first interface device,	In the Reply example shown below, the new message (“I don’t know.”) is displayed in two ways, each of which have the first visual cue(s) applied. In the first way, the text “1 Reply” is displayed below the first message. The visual cue “Reply” that is used in the changed message entry location is thus applied within the discussion interface. Also, the visual cue of proximity is also applied for the “1 Reply” text below the first message as well as for the “I don’t know.” text that appears directly under the repeated first message after “1 Reply” is clicked.  

304 Patent at 1[f] – Apple Claim Chart

CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[f] displaying the first new message with the first visual cue applied within the discussion interface at the first interface device,	In the second way the new message (“I don’t know.”) is displayed, the first message (“What time are you going to arrive?”) is repeated and the first new message (“I don’t know.”) is displayed directly below the repeated first message. Thus again, the visual cue of proximity is applied. 

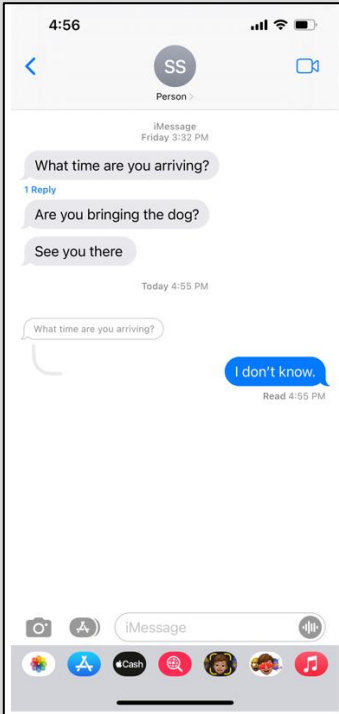
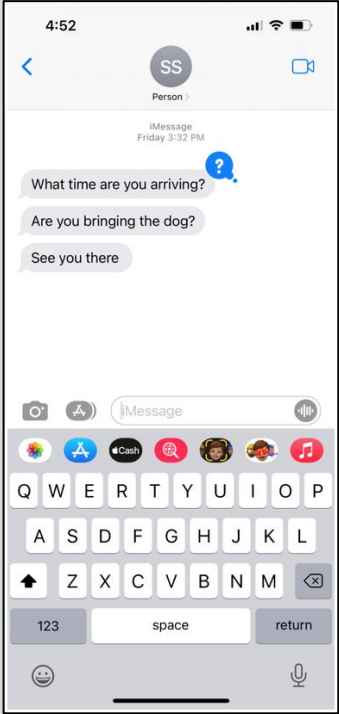
CLAIM LANGUAGE	REPRESENTATIVE PROOF
1[g] wherein the first visual cue is shared by the first message and the first new message.	In each of the examples above, the first visual cue is shared by the first message and the first new message. In the examples in which the visual cue is proximity, the first message and the first new message each share proximity to each other. In the example in which “Reply” is the visual cue, the “Reply” visual cue is shared by the first message and the first new message. When “1 Reply” is pressed, both messages are brought to the foreground, while the other messages are blurred, thereby sharing proximity and other visual cues.

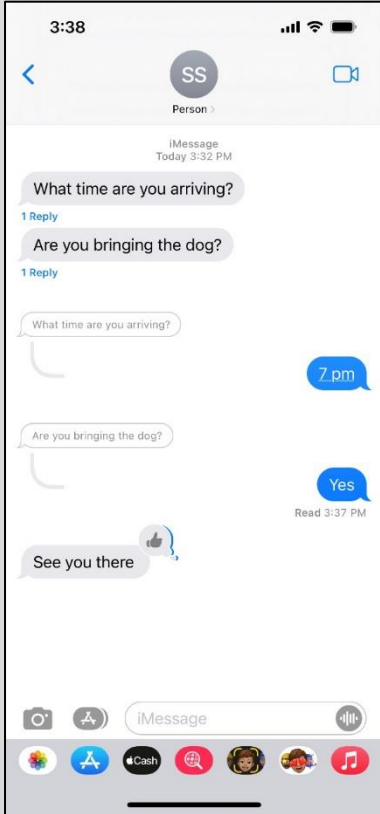
CLAIM LANGUAGE	REPRESENTATIVE PROOF
2. The computer based method of claim 1 wherein the first indication is generated by a tapping input at a touch sensitive display of the first interface device.	The Messages app with iMessage functionality includes the method of claim 1 as shown above. Moreover, in the Messages app with iMessage functionality, the first indication is generated by a tapping input at a touch sensitive display of the first interface device. For example, the iPhone, iPad, and iPod touch Accused Devices include touch sensitive displays. The first indication is generated by a tapping input at a touch sensitive display. See 1[c] above. Reply to specific messages on your iPhone, iPad, and iPod touch With iOS 14 and iPadOS 14 and later, you can reply directly to a specific message and use mentions to call attention to certain messages and people. How to reply to a specific message 1. Open a Messages conversation. 2. Touch and hold a message bubble, then tap the Reply button . 3. Type your message, then tap the Send button . You can reply to a specific message in conversations with one person and in groups. 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
6. The computer based method of claim 1, wherein the first message is part of a first conversation and the second message is part of a second conversation, the method further comprising:	The Messages app with iMessage functionality includes the method of claim 1 as shown above. Moreover, in the Messages app with iMessage functionality, the first message can be part of a first conversation and the second message can be part of a second conversation. As shown below, any of the three messages can be part of a first conversation or part of a second conversation. 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
defining, upon receiving the first indication, the first conversation as the active conversation, and defining the first new message as part of the first conversation,	The Messages app with iMessage functionality defines, upon receiving the first indication, the first conversation as the active conversation and defines the first new message as part of the first conversation. For example, upon receiving the first indication (e.g., an input caused by a tap or hold on the first message, which can be followed by a tap on “Reply”), the first conversation (e.g., the conversation with message “What time are you going to arrive?”) is defined as the active conversation. And the first new message is defined as part of that conversation as shown, e.g., in the Tapback or Reply options below. 

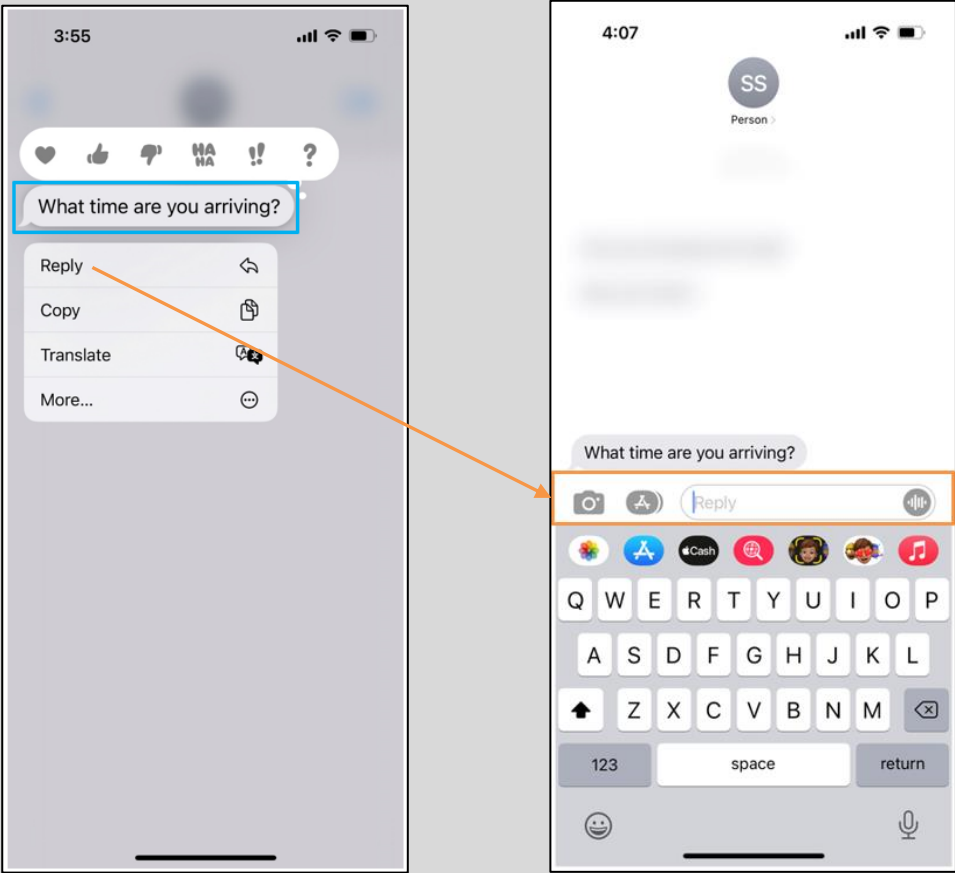
CLAIM LANGUAGE	REPRESENTATIVE PROOF
wherein the first visual cue is incorporated into any previously displayed messages that are part of the first conversation.	The first visual cue is incorporated into any previously displayed messages that are part of the first conversation. This can be, for example, the proximity of the Tapback bubble, the word “Reply,” or the proximity of the text of the reply message, e.g., (“I don’t know.”), as shown below, which are incorporated into the previously displayed message, e.g., (“What time are you arriving?”).

CLAIM LANGUAGE	REPRESENTATIVE PROOF
7. The computer based method of claim 6 further comprising: receiving, at the first interface device, after displaying the first new message, a second indication that the second message is part of an active conversation;	The Messages app with iMessage functionality includes the method of claim 6 as shown above. The Messages app with iMessage functionality, receives, at the first interface device, after displaying the first new message, a second indication that the second message is part of an active conversation. This indication occurs in the same way as the first indication, e.g., by a tap or hold on the touch screen. In the example below, the first conversation includes the question “What time are you arriving?” and the response (e.g., “I don’t know” or a question mark Tapback) which correlates to the first new message. After that message is displayed, the Messages app can receive second indication that the second message (e.g., “Are you bringing the dog?” or “See you there”) is part of an active conversation.  

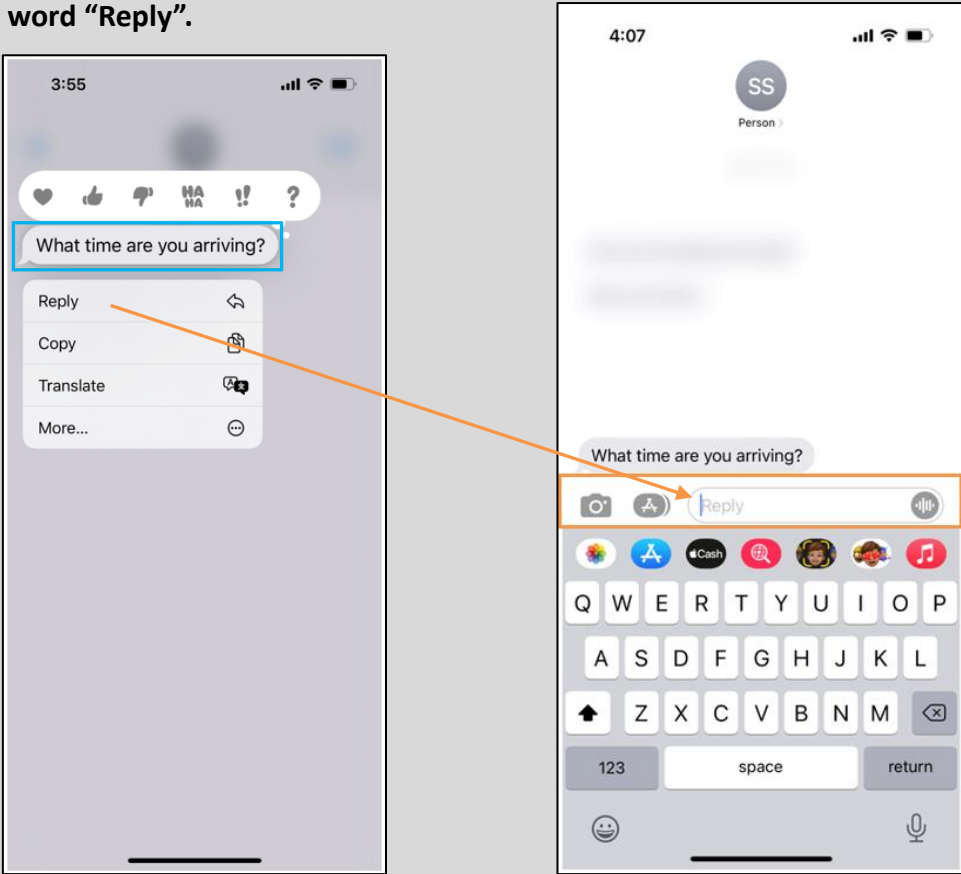
CLAIM LANGUAGE	REPRESENTATIVE PROOF
defining, upon receiving the second indication, the active conversation as the second conversation exclusively; receiving a second new message at the message entry location; and	The Messages app defines, upon receiving the second indication, the active conversation as the second conversation exclusively, e.g., the conversation associated with the statements (e.g., “Are you bringing the dog?” or “See you there”) is now the active conversation. The Messages app receives a second new message at the message entry location in the same way as it received the first new message as described at 1[e], (e.g., receiving a Tapback or entered text). These second new messages can be the “Yes” reply or the thumbs-up Tapback shown below. 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
displaying the second new message in the discussion interface at the first interface device; wherein the displaying of the second new message incorporates a second visual cue shared by messages associated with the second conversation.	The Messages app displays the second new message in the discussion interface at the first interface device (e.g., the “Yes” reply or the thumbs-up Tapback shown below). The displaying of the second new message incorporates a second visual cue shared by messages associated with the second conversation. For example, the thumbs-up Tapback shown below uses the proximity of the Tapback as the incorporated second visual cue shared by messages associated with the second conversation. Or the “Yes” reply uses the proximity, the linking line, or the text “reply” as the incorporated second visual cue shared by messages associated with the second conversation. 

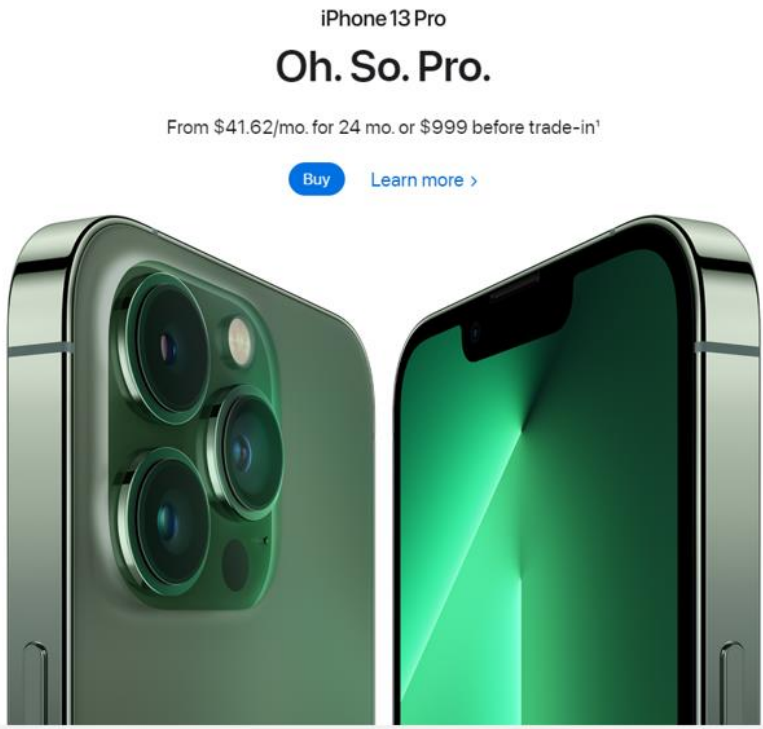
CLAIM LANGUAGE	REPRESENTATIVE PROOF
11. The computer based method of claim 1 wherein the first visual cue is in the form of text associated with the first message and proximity to text associated with the first message such that after receiving the first indication, the visual element of the message entry location is changed to present text associated with the first message and,	The Messages app with iMessage functionality includes the method of claim 1 as shown above. The Messages app with iMessage functionality includes that the first visual cue is in the form of text associated with the first message and proximity to text associated with the first message such that after receiving the first indication, the visual element of the message entry location is changed to present text associated with the first message. This is shown for, example, in the Reply functionality shown on the next page, in which the message entry location includes the word “Reply” and is moved in close proximity to the first message, e.g., “What time are you arriving?”

CLAIM LANGUAGE	REPRESENTATIVE PROOF
11. The computer based method of claim 1 wherein the first visual cue is in the form of text associated with the first message and proximity to text associated with the first message such that after receiving the first indication, the visual element of the message entry location is changed to present text associated with the first message and,	Continued from previous page.  The representative proof consists of two screenshots from an iPhone. The first screenshot, taken at 3:55, shows a message conversation with a contact. A message bubble contains the text 'What time are you arriving?'. A context menu is open over this message, displaying options: 'Reply', 'Copy', 'Translate', and 'More...'. An orange arrow originates from the 'Reply' option in this menu. The second screenshot, taken at 4:07, shows the same conversation. The message 'What time are you arriving?' is visible. Below it, the reply input area is highlighted with an orange border. This area contains a camera icon, an app icon, a text input field with the placeholder 'Reply', and a voice recording icon. The orange arrow from the first screenshot points directly to this 'Reply' text input field. Below the input area is a standard QWERTY keyboard.

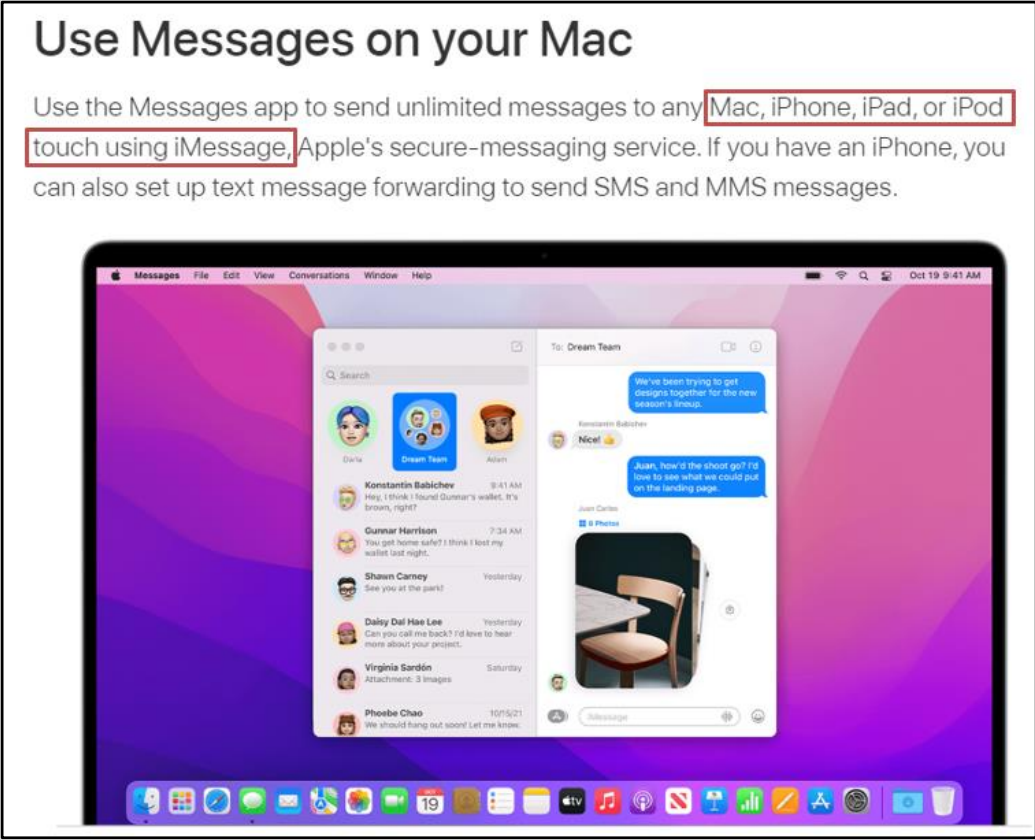
CLAIM LANGUAGE	REPRESENTATIVE PROOF
upon receiving the first new message, the first new message is displayed at a location within the discussion interface in closer proximity to the first message relative to proximity of the second message to the first message.	Upon receiving the first new message, the first new message is displayed at a location within the discussion interface in closer proximity to the first message relative to proximity of the second message to the first message. This is shown in the examples below.

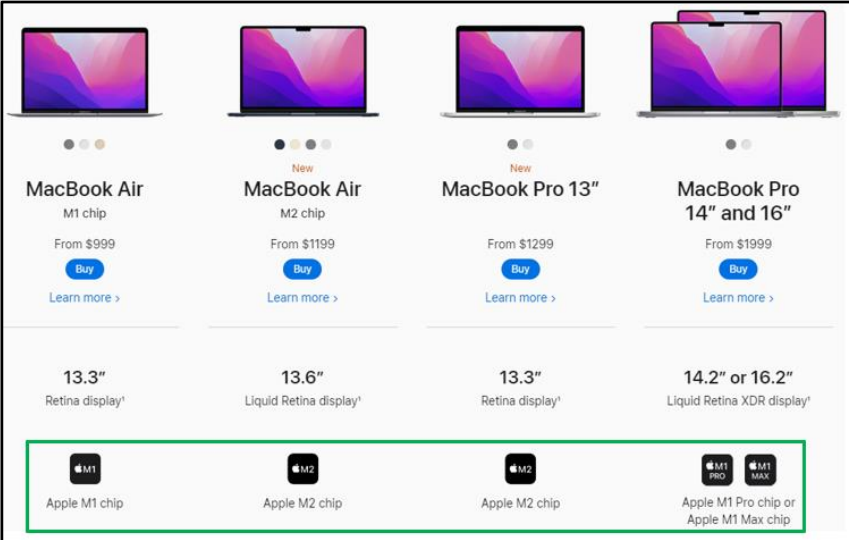
CLAIM LANGUAGE	REPRESENTATIVE PROOF
12. The computer based method of claim 1 wherein the first visual cue is in the form of text associated with the first message such that after receiving the first indication, the visual element of the message entry location is changed to present text associated with the first message and,	The Messages app with iMessage functionality includes the method of claim 1 as shown above. The Messages app with iMessage functionality includes that the first visual cue is in the form of text associated with the first message such that after receiving the first indication, the visual element of the message entry location is changed to present text associated with the first message. This is shown for, example, in the Reply functionality shown on the next page, in which the message entry location includes the word “Reply”. 

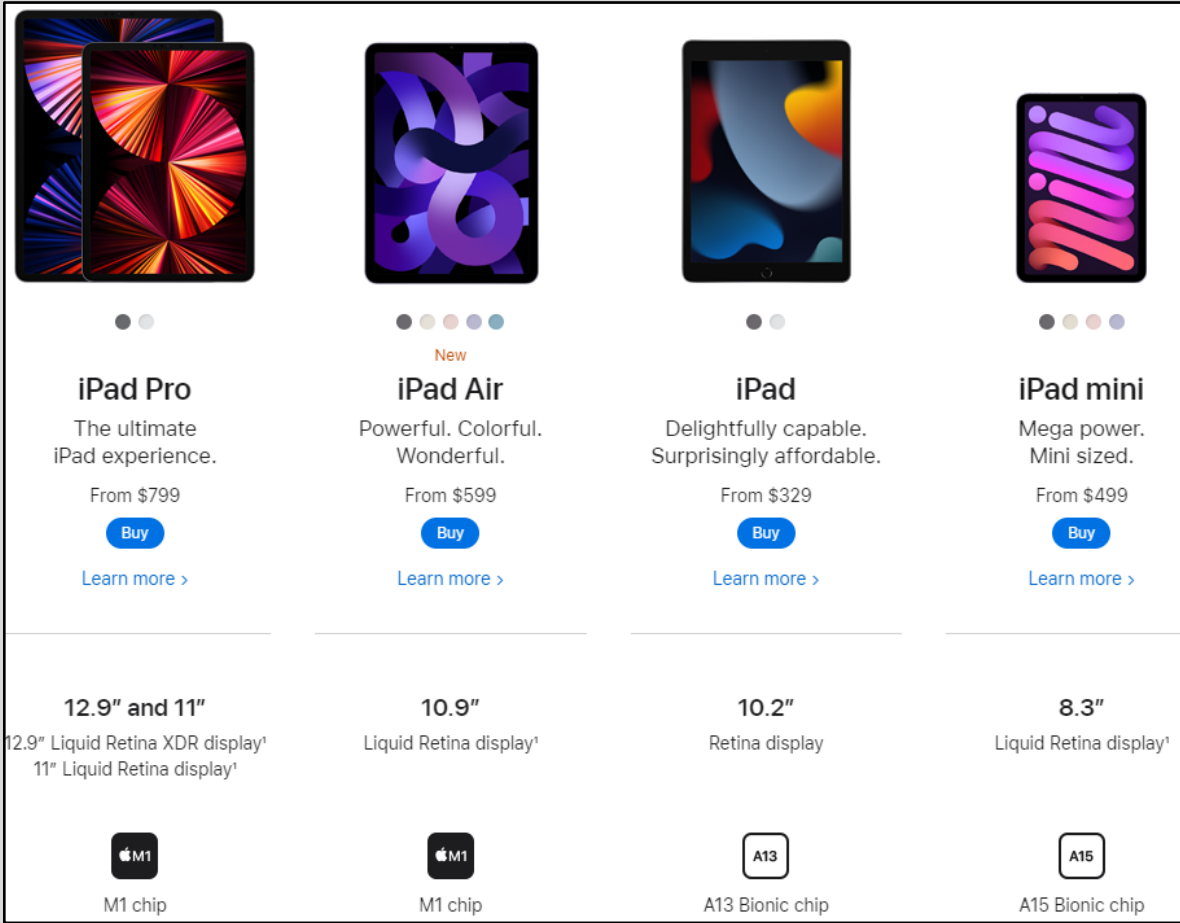
CLAIM LANGUAGE	REPRESENTATIVE PROOF
upon receiving the first new message, the first new message is displayed with text associated with the first message.	Upon receiving the first new message, the first new message is displayed with text associated with the first message. This is shown in the examples below.

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[pre] A system for correlating conversations, the system comprising an interface device in communication with a computerized network, the interface device comprising:	Apple makes uses, imports, sells, and/or offers for sale systems for correlating conversations. Those systems include iPhones, iPads, iPod Touches, Apple watches, and Mac computers. (the “Accused Devices”). The Accused Devices comprise an interface device, e.g., a device that allows users to create and transmit messages, using for example the Messages App and its iMessage functionality. The Accused Devices are in communication with a communication network, e.g., any of the network(s) along the transmission/reception path used by the Accused Devices to transmit and receive messages.  https://www.apple.com/iphone/

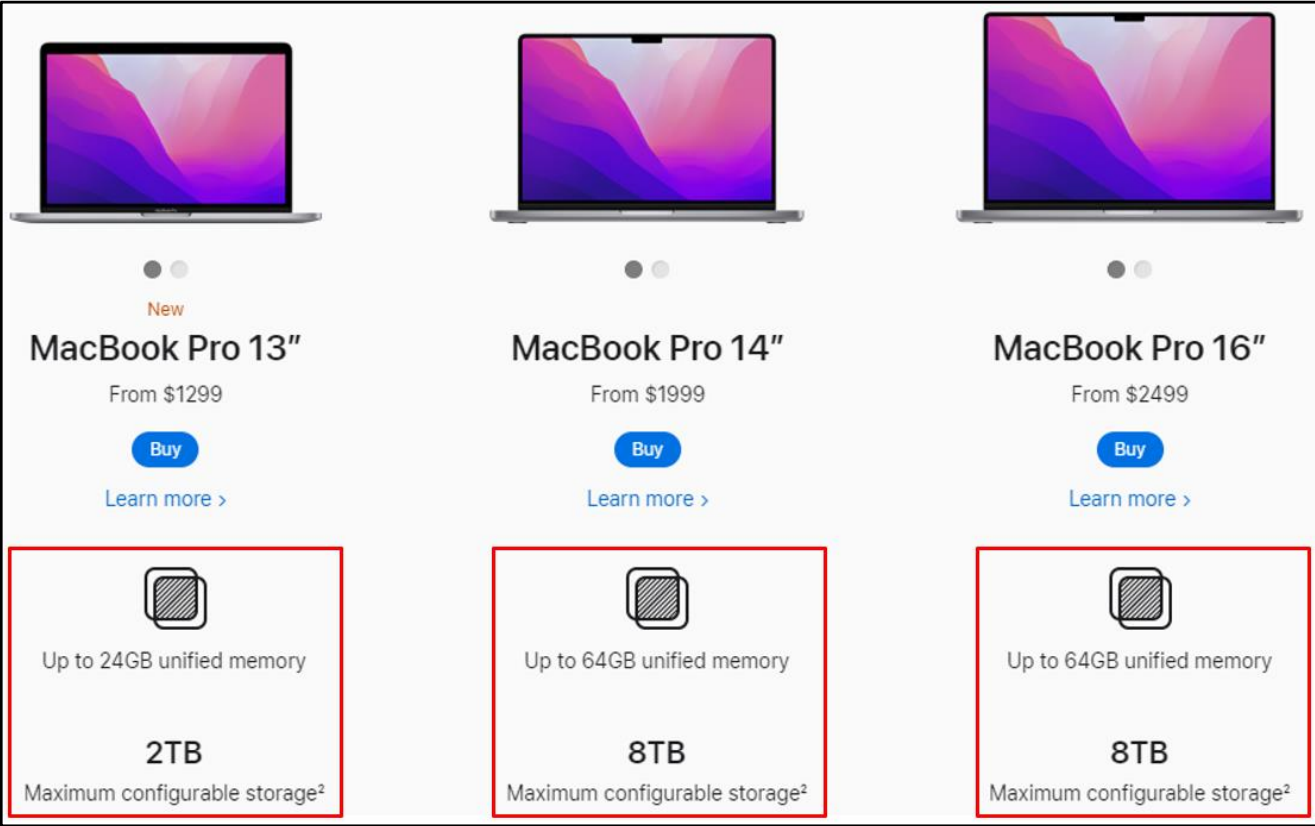
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[pre] A system for correlating conversations, the system comprising an interface device in communication with a computerized network, the interface device comprising:	The excerpts below from Apple's support website introduces the Messages app used on the iPhone, iPad, iPod Touch, and Apple Watch, which includes iMessage functionality. Use Messages on your iPhone, iPad, or iPod touch Stay connected to the conversations that matter the most. Send texts, photos, videos, and more. Then personalize your messages with animated effects, pin your important conversations, send inline replies, and add mentions. Send a message 1. Open Messages. 2. Tap the Compose button  to start a new message. Or go to an existing conversation. 3. Type your message, then tap the Send button . With iOS 14 and iPadOS 14 and later, you can also use inline replies and mentions to call attention to specific messages and people within the messages. https://support.apple.com/en-us/HT201287 Send a quick reaction with a tapback 1. Go to the Messages app  on your Apple Watch. 2. Double-tap a specific message in a conversation, then choose a Tapback—like a thumbs up or heart. https://support.apple.com/guide/watch/send-messages-apd92a90f882/watchos

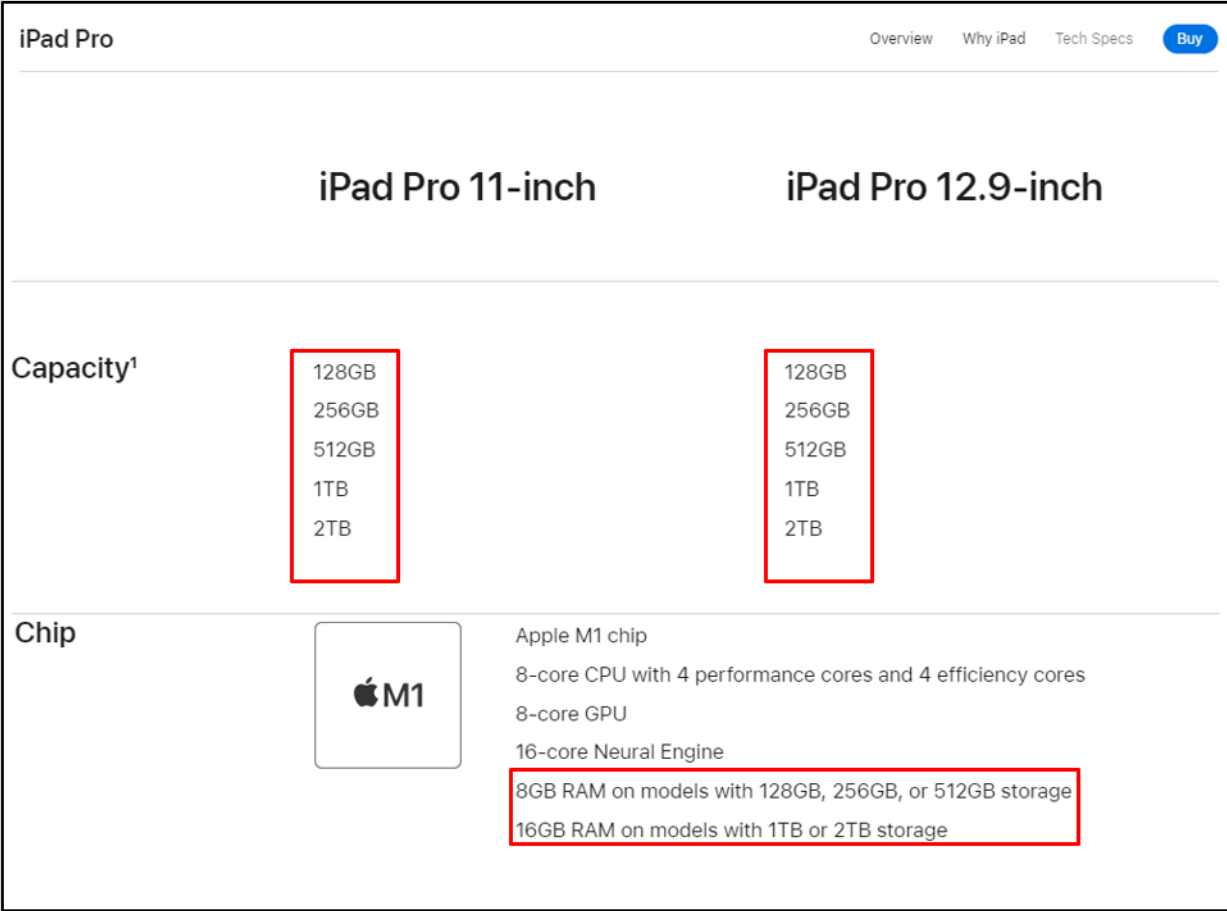
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[pre] A system for correlating conversations, the system comprising an interface device in communication with a computerized network, the interface device comprising:	The excerpt below from Apple’s support website shows the Messages app used on Mac computers and shows that each of the Mac, iPhone, iPad, Apple watches, and iPod Touch products use iMessage functionality.  https://support.apple.com/en-us/HT202549

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[a] a processor for implementing a software application on the interface device;	The Accused Devices each include a processor for implementing a software application (e.g., the Messages application) on the interface device. The example below shows the A15 processor on the iPhone 13 Pro. Chip  A15 Bionic chip New 6-core CPU with 2 performance and 4 efficiency cores New 5-core GPU New 16-core Neural Engine https://www.apple.com/iphone-13-pro/specs/ The example below shoesh the M2 and M1 processors in the MacBook Pro.  The screenshot displays four MacBook models: MacBook Air (M1 chip), MacBook Air (M2 chip), MacBook Pro 13" (M2 chip), and MacBook Pro 14" and 16" (M1 Pro or M1 Max chip). A green box highlights the processor information for each model: Apple M1 chip, Apple M2 chip, Apple M2 chip, and Apple M1 Pro chip or Apple M1 Max chip. https://www.apple.com/macbook-pro/

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[a] a processor for implementing a software application on the interface device;	The example below shows the M1, A13, and A15 processors in the iPad Pro, iPad Air, iPad, and iPad mini.  https://www.apple.com/ipad/

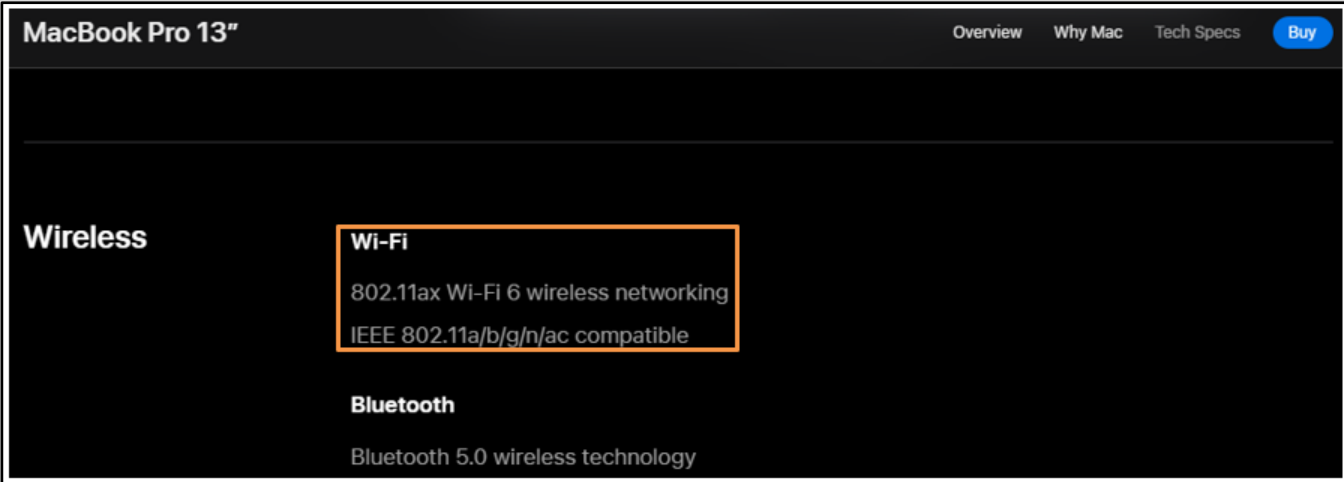
CLAIM LANGUAGE	REPRESENTATIVE PROOF								
14[b] a memory for storing the software application and for storing a plurality of messages in accordance with the software application;	The Accused Devices include a memory for storing the software application and for storing a plurality of messages in accordance with the software application. This memory can either be volatile memory such as the Accused Devices' RAM or their non-volatile storage. The example below shows the RAM on the iPhone 13 Pro. RAM The iPhone 13 Pro models have 6GB RAM, while the iPhone 13 models have 4GB RAM. RAM has not changed from the iPhone 12 to the iPhone 13, and the iPhone 12 and 12 Pro models also had 4GB and 6GB RAM, respectively. https://www.macrumors.com/roundup/iphone-13-pro/ The example below shows the non-volatile storage on the iPhone 13 Pro. Capacity¹ <table> <tr> <td>128GB</td><td>128GB</td></tr> <tr> <td>256GB</td><td>256GB</td></tr> <tr> <td>512GB</td><td>512GB</td></tr> <tr> <td>1TB</td><td>1TB</td></tr> </table> https://www.apple.com/iphone-13-pro/specs/	128GB	128GB	256GB	256GB	512GB	512GB	1TB	1TB
128GB	128GB								
256GB	256GB								
512GB	512GB								
1TB	1TB								

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[b] a memory for storing the software application and for storing a plurality of messages in accordance with the software application;	The example below shows the RAM and non-volatile storage on the current MacBook Pro models.  https://www.apple.com/macbook-pro/

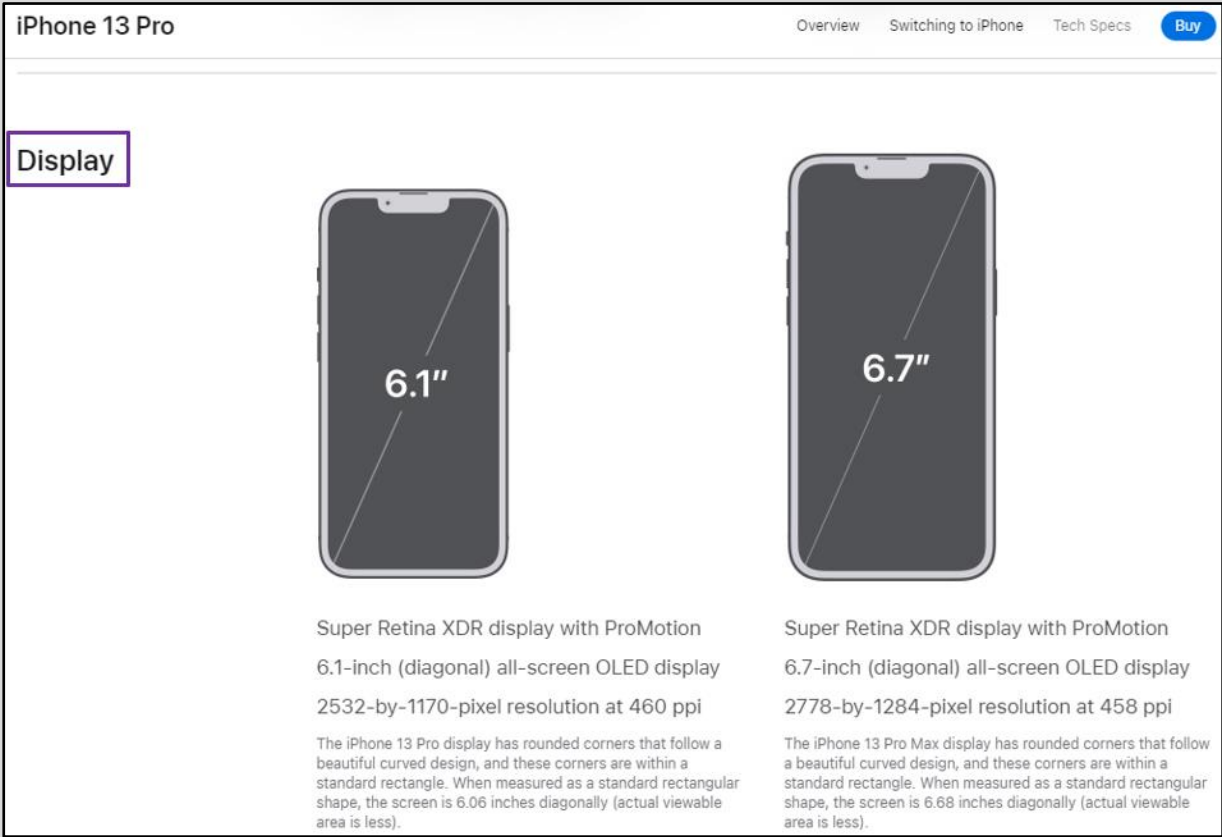
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[b] a memory for storing the software application and for storing a plurality of messages in accordance with the software application;	The example below shows the RAM and non-volatile storage on the current iPad Pro models.  The screenshot displays the iPad Pro specifications page. It compares the 11-inch and 12.9-inch models. Under the 'Capacity' section, both models offer storage options of 128GB, 256GB, 512GB, 1TB, and 2TB. Under the 'Chip' section, both models use the Apple M1 chip, which includes an 8-core CPU, an 8-core GPU, and a 16-core Neural Engine. The RAM specifications are highlighted: 8GB RAM for models with 128GB, 256GB, or 512GB storage, and 16GB RAM for models with 1TB or 2TB storage. https://www.apple.com/ipad-pro/specs/

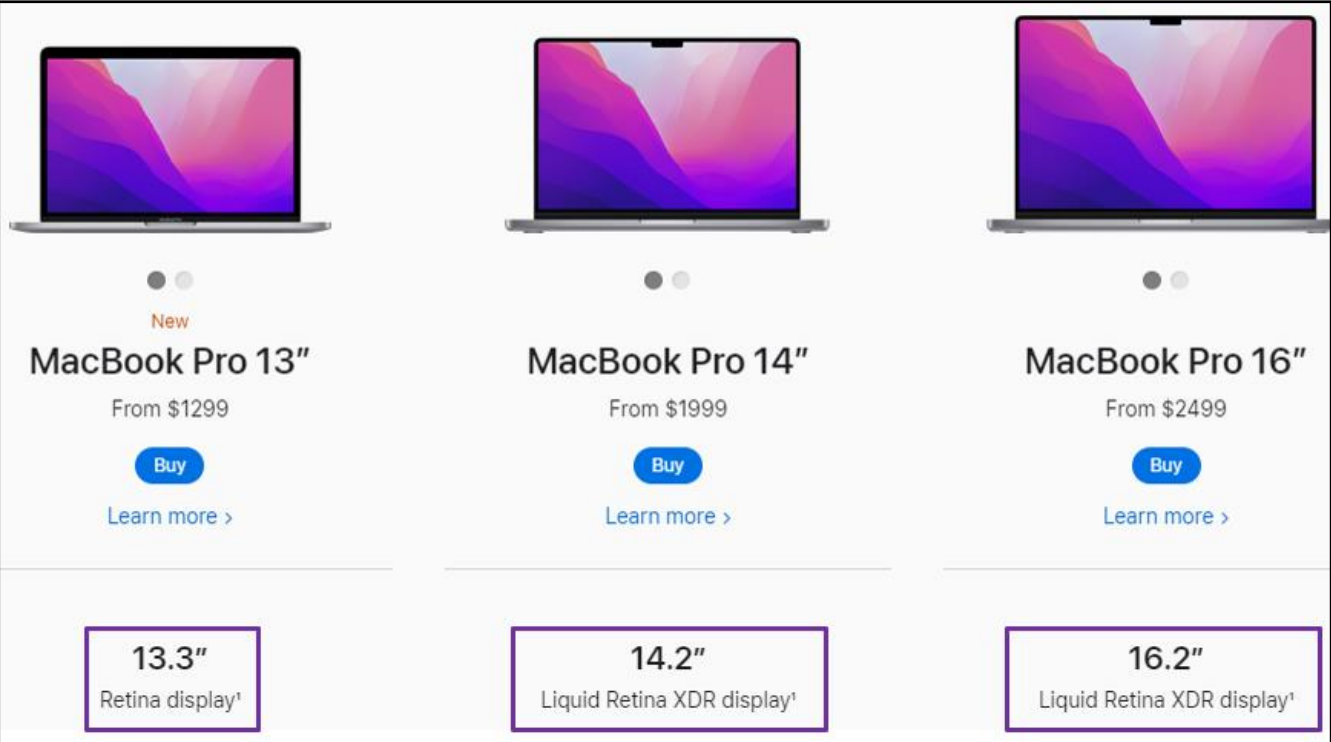
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[b] a memory for storing the software application and for storing a plurality of messages in accordance with the software application;	The Accused Devices each include a memory for storing the software application, such that it can execute, and for storing a plurality of messages in accordance with the software application. As shown in the example excerpt below, the memory in the Accused Devices stores the messages sent and received in the Messages app. We designed iMessage to use end-to-end encryption, so there's no way for Apple to decrypt the content of your conversations when they are in transit between devices. Attachments you send over iMessage (such as photos or videos) are encrypted so that no one but the sender and receiver(s) can access them. These encrypted attachments may be uploaded to Apple. To improve performance, your device may automatically upload attachments to Apple while you are composing an iMessage. If your message isn't sent, the attachments are deleted from the server after 30 days. When a passcode or password is set on your iOS, iPadOS, or watchOS device, stored messages are encrypted on your device so that they can't be accessed unless the device has been unlocked. You can choose to automatically delete your iMessages from your device after 30 days or a year, or to keep them on your device forever. For your convenience, iMessages are backed up in iCloud and encrypted if you have enabled either iCloud Backup or Messages in iCloud. You can turn off both iCloud Backup and Messages in iCloud whenever you want. On iOS or iPadOS, go to Settings > [your name] > iCloud. On Mac, go to Messages > Preferences > iMessage, and deselect Enable Messages in iCloud. https://www.apple.com/legal/privacy/data/en/messages/

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[c] a transmission unit for transmitting messages to the computerized network; and;	The Accused Devices include a transmission unit for transmitting messages to the computerized network. The transmission unit includes, for example, the cellular and Wi-Fi antennas and their associated transmission components. The example below shows the cellular and Wi-Fi capabilities of the iPhone 13 Pro. Cellular and Wireless - Model A2483³ 5G NR (Bands n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n29, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79) 5G NR mmWave (Bands n258, n260, n261) - FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 28, 29, 30, 32, 66, 71) - TD-LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48) - CDMA EV-DO Rev. A (800, 1900 MHz) - UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz) - GSM/EDGE (850, 900, 1800, 1900 MHz) - Model A2484⁴ 5G NR (Bands n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n29, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79) 5G NR mmWave (Bands n258, n260, n261) - FDD-LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 28, 29, 30, 32, 66, 71) - TD-LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48) - CDMA EV-DO Rev. A (800, 1900 MHz) - UMTS/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz) - GSM/EDGE (850, 900, 1800, 1900 MHz) - All models 5G (sub-6 GHz and mmWave) with 4x4 MIMO⁶ - Gigabit LTE with 4x4 MIMO and LAA⁶ - Wi-Fi 6 (802.11ax) with 2x2 MIMO - Bluetooth 5.0 wireless technology - Ultra Wideband chip for spatial awareness⁷ - NFC with reader mode - Express Cards with power reserve For details on 5G and LTE support, contact your carrier and see apple.com/iphone/cellular. https://support.apple.com/kb/SP852?locale=en_US

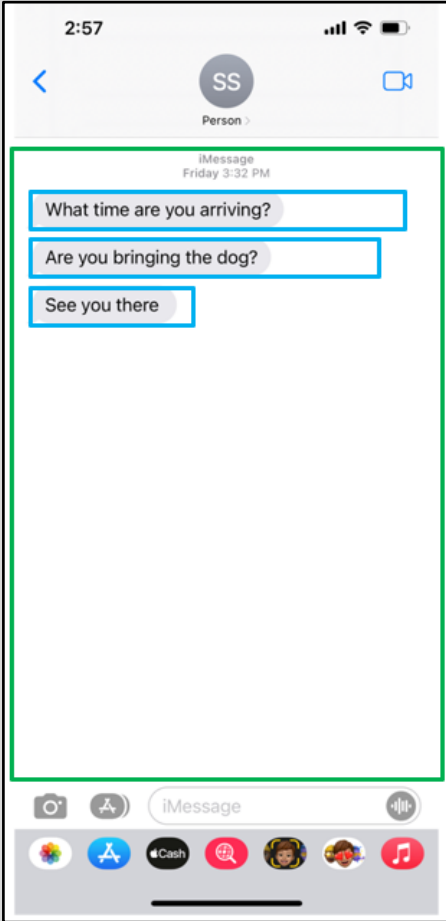
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[c] a transmission unit for transmitting messages to the computerized network; and;	The example below shows the Wi-Fi capabilities of the MacBook Pro 13”.  The screenshot shows the 'MacBook Pro 13”' product page with tabs for 'Overview', 'Why Mac', 'Tech Specs', and 'Buy'. Under the 'Wireless' section, the 'Wi-Fi' subsection is highlighted with an orange box, listing '802.11ax Wi-Fi 6 wireless networking' and 'IEEE 802.11a/b/g/n/ac compatible'. The 'Bluetooth' subsection lists 'Bluetooth 5.0 wireless technology'. https://www.apple.com/macbook-pro-13/specs/

CLAIM LANGUAGE	REPRESENTATIVE PROOF																																				
14[c] a transmission unit for transmitting messages to the computerized network; and;	The example below shows the cellular and Wi-Fi capabilities of the various iPad models. iPad Pro 12.9-in. (5th genera iPad Air (5th generation) iPad (9th generation) Cellular and Wireless Learn more about cellular data > <table><tr><td>All models</td><td>All models</td><td>All models</td></tr><tr><td>Wi-Fi 6 (802.11a/b/g/n/ac/ax); 2.4GHz and 5GHz; simultaneous dual band; speeds up to 1.2 Gbps</td><td>Wi-Fi 6 (802.11a/b/g/n/ac/ax); 2.4GHz and 5GHz; simultaneous dual band; speeds up to 1.2 Gbps</td><td>Wi-Fi (802.11a/b/g/n/ac); 2.4GHz and 5GHz; speeds up to 866 Mbps</td></tr><tr><td>MIMO</td><td>MIMO</td><td>MIMO</td></tr><tr><td>Bluetooth 5.0 technology</td><td>Bluetooth 5.0 technology</td><td>Bluetooth 4.2 technology</td></tr><tr><td>Wi-Fi + Cellular</td><td>Wi-Fi + Cellular</td><td>Wi-Fi + Cellular</td></tr><tr><td>GSM/EDGE</td><td>—</td><td>—</td></tr><tr><td>UMTS/HSPA/HSPA+/DC-HSDPA</td><td>UMTS/HSPA/HSPA+/DC-HSDPA</td><td>UMTS/HSPA/HSPA+/DC-HSDPA</td></tr><tr><td>5G (sub-6 GHz and mmWave)²</td><td>5G (sub-6 GHz)²</td><td>—</td></tr><tr><td>Gigabit LTE (up to 32 bands)²</td><td>Gigabit LTE (up to 32 bands)²</td><td>Gigabit-class LTE (up to 27 bands)²</td></tr><tr><td>Built-in GPS/GNSS</td><td>Built-in GPS/GNSS</td><td>Built-in GPS/GNSS</td></tr><tr><td>Data only⁶</td><td>Data only⁶</td><td>Data only⁶</td></tr><tr><td>Wi-Fi calling²</td><td>Wi-Fi calling²</td><td>Wi-Fi calling²</td></tr></table> https://www.apple.com/ipad/compare/	All models	All models	All models	Wi-Fi 6 (802.11a/b/g/n/ac/ax); 2.4GHz and 5GHz; simultaneous dual band; speeds up to 1.2 Gbps	Wi-Fi 6 (802.11a/b/g/n/ac/ax); 2.4GHz and 5GHz; simultaneous dual band; speeds up to 1.2 Gbps	Wi-Fi (802.11a/b/g/n/ac); 2.4GHz and 5GHz; speeds up to 866 Mbps	MIMO	MIMO	MIMO	Bluetooth 5.0 technology	Bluetooth 5.0 technology	Bluetooth 4.2 technology	Wi-Fi + Cellular	Wi-Fi + Cellular	Wi-Fi + Cellular	GSM/EDGE	—	—	UMTS/HSPA/HSPA+/DC-HSDPA	UMTS/HSPA/HSPA+/DC-HSDPA	UMTS/HSPA/HSPA+/DC-HSDPA	5G (sub-6 GHz and mmWave) ²	5G (sub-6 GHz) ²	—	Gigabit LTE (up to 32 bands) ²	Gigabit LTE (up to 32 bands) ²	Gigabit-class LTE (up to 27 bands) ²	Built-in GPS/GNSS	Built-in GPS/GNSS	Built-in GPS/GNSS	Data only ⁶	Data only ⁶	Data only ⁶	Wi-Fi calling ²	Wi-Fi calling ²	Wi-Fi calling ²
All models	All models	All models																																			
Wi-Fi 6 (802.11a/b/g/n/ac/ax); 2.4GHz and 5GHz; simultaneous dual band; speeds up to 1.2 Gbps	Wi-Fi 6 (802.11a/b/g/n/ac/ax); 2.4GHz and 5GHz; simultaneous dual band; speeds up to 1.2 Gbps	Wi-Fi (802.11a/b/g/n/ac); 2.4GHz and 5GHz; speeds up to 866 Mbps																																			
MIMO	MIMO	MIMO																																			
Bluetooth 5.0 technology	Bluetooth 5.0 technology	Bluetooth 4.2 technology																																			
Wi-Fi + Cellular	Wi-Fi + Cellular	Wi-Fi + Cellular																																			
GSM/EDGE	—	—																																			
UMTS/HSPA/HSPA+/DC-HSDPA	UMTS/HSPA/HSPA+/DC-HSDPA	UMTS/HSPA/HSPA+/DC-HSDPA																																			
5G (sub-6 GHz and mmWave) ²	5G (sub-6 GHz) ²	—																																			
Gigabit LTE (up to 32 bands) ²	Gigabit LTE (up to 32 bands) ²	Gigabit-class LTE (up to 27 bands) ²																																			
Built-in GPS/GNSS	Built-in GPS/GNSS	Built-in GPS/GNSS																																			
Data only ⁶	Data only ⁶	Data only ⁶																																			
Wi-Fi calling ²	Wi-Fi calling ²	Wi-Fi calling ²																																			

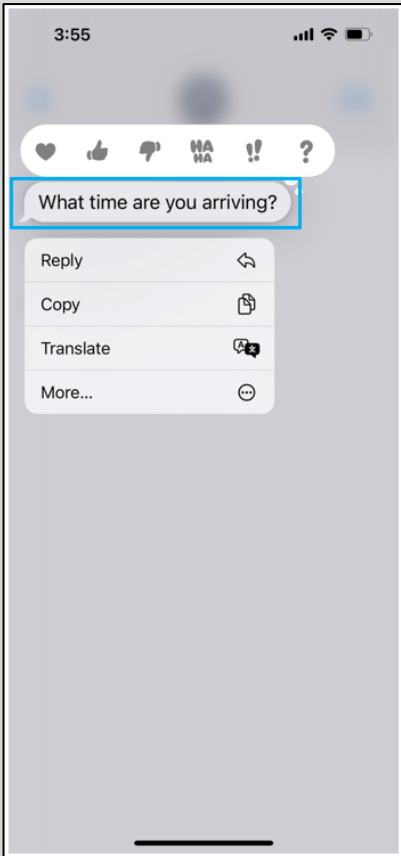
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[d] a display,	The Accused Devices include a display. The example below shows the display of the iPhone 13 Pro.  iPhone 13 Pro Overview Switching to iPhone Tech Specs Buy Display 6.1" Super Retina XDR display with ProMotion 6.1-inch (diagonal) all-screen OLED display 2532-by-1170-pixel resolution at 460 ppi The iPhone 13 Pro display has rounded corners that follow a beautiful curved design, and these corners are within a standard rectangle. When measured as a standard rectangular shape, the screen is 6.06 inches diagonally (actual viewable area is less). 6.7" Super Retina XDR display with ProMotion 6.7-inch (diagonal) all-screen OLED display 2778-by-1284-pixel resolution at 458 ppi The iPhone 13 Pro Max display has rounded corners that follow a beautiful curved design, and these corners are within a standard rectangle. When measured as a standard rectangular shape, the screen is 6.68 inches diagonally (actual viewable area is less). https://www.apple.com/iphone-13-pro/specs/

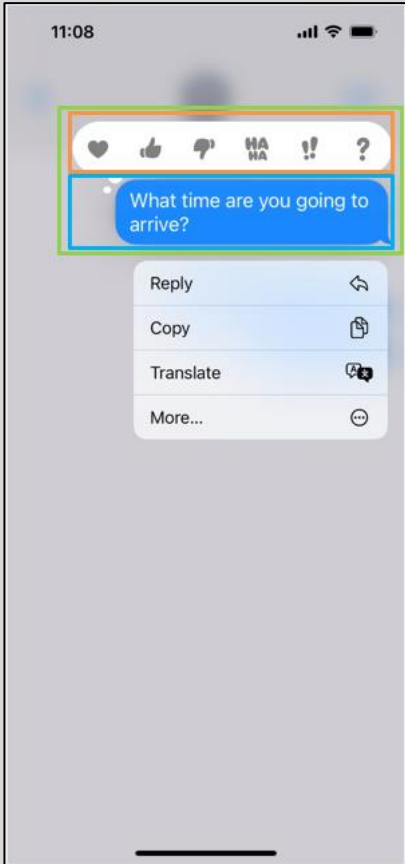
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[d] a display,	The example below shows the display of the current MacBook Pro models.  MacBook Pro 13" From \$1299 Buy Learn more > 13.3" Retina display¹ MacBook Pro 14" From \$1999 Buy Learn more > 14.2" Liquid Retina XDR display¹ MacBook Pro 16" From \$2499 Buy Learn more > 16.2" Liquid Retina XDR display¹ https://www.apple.com/macbook-pro/

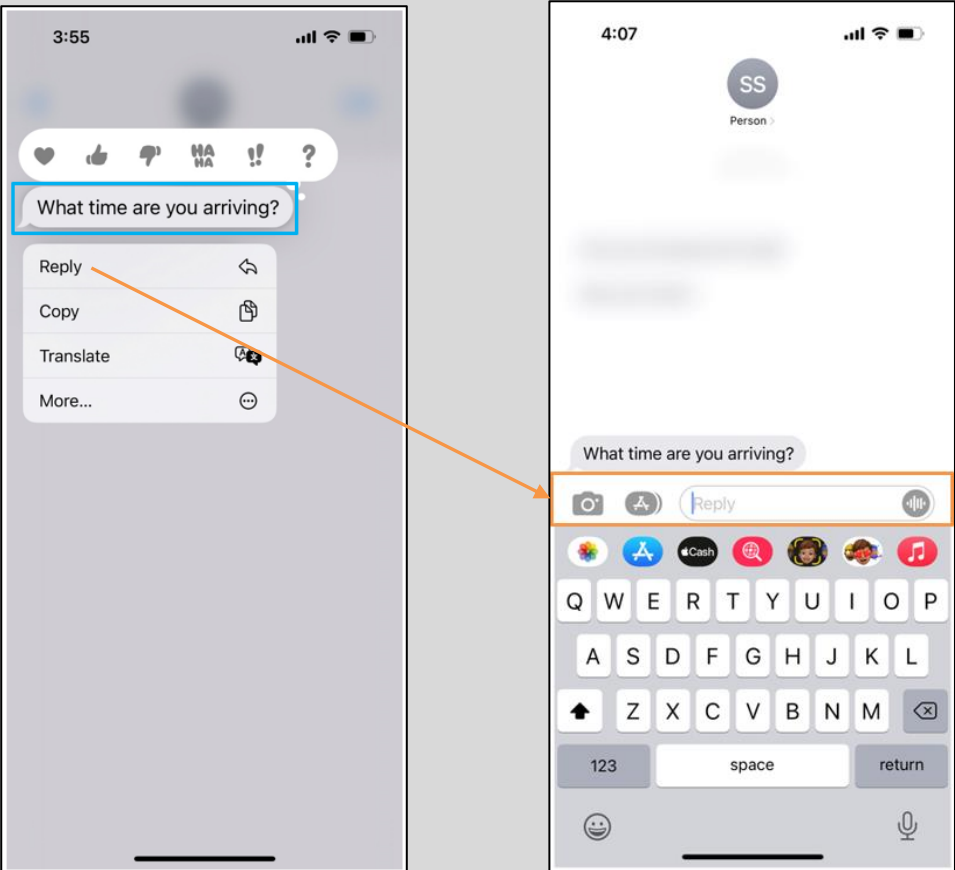
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[d] a display ,	The example below shows the display of the current iPad models. iPad Pro 12.9-in. (5th genera ▾) iPad Air (5th generation) ▾ iPad (9th generation) ▾ Summary 12.9" Liquid Retina XDR display¹ ProMotion technology and True Tone 10.9" Liquid Retina display¹ True Tone 10.2" Retina display True Tone https://www.apple.com/ipad/compare/

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[e] wherein the software application comprises instructions for: providing a discussion interface at the display of the user interface device for displaying messages stored in the memory;	The Messages app provides a discussion interface (e.g., the area displaying the messages) at the display of the user interface device for displaying messages stored in the memory. The discussion interface displays any number of messages, which are stored in the memory as shown in limitation 14[b] . 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[f] providing a message entry location for entering new messages, the message entry location visually associated with the discussion interface;	The Messages app provides a message entry location for entering new messages (e.g., the input box shown below) with the message entry location visually associated with the discussion interface. That message entry location is visually associated with the discussion interface by appearing adjacent to the bottom of the discussion interface. 

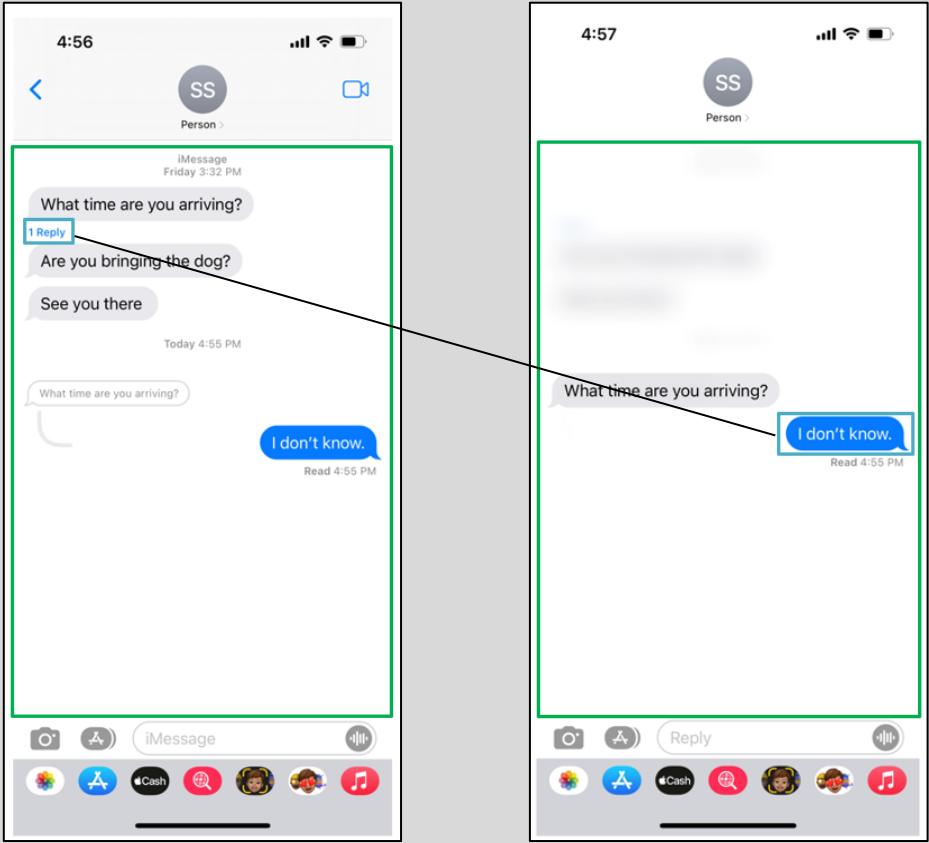
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[g] recording an indication that a first new message will be responsive to one of several messages;	The Messages app records an indication (e.g., an input caused by a tap or hold on a message, which can be followed by a tap on “Reply”) that a first new message will be responsive to one of several messages. For example, when the iPhone running the Messages app in the example below records an input caused by pressing the first message (“What time are you going to arrive?”), that indication causes the following change in the display.  The screenshot shows an iPhone screen with the Messages app open. At the top, the status bar displays the time 3:55, signal strength, Wi-Fi, and battery icons. Below the status bar is a blurred header for a conversation. A message bubble containing the text "What time are you arriving?" is highlighted with a blue rectangular box. Above this message bubble is a white action bar containing icons for heart, thumbs up, thumbs down, "HA HA", exclamation marks, and a question mark. Below the highlighted message bubble is a white context menu with four options: "Reply" (with a curved arrow icon), "Copy" (with a document icon), "Translate" (with a speech bubble and document icon), and "More..." (with a three-dot icon).

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[h] changing a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the one of several messages;	The Messages app changes a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the one of several messages in at least two ways. The first example relates to responding via the Tapback options such as the heart, thumbs up, or question mark. In this example, a visual element of the message entry location is changed to match a first visual cue shared with one of the several messages upon receipt of a first indication (e.g., when the message below is pressed). Specifically, the message entry location is moved in close proximity to and changed to a bubble of possible reply options above the first message. 

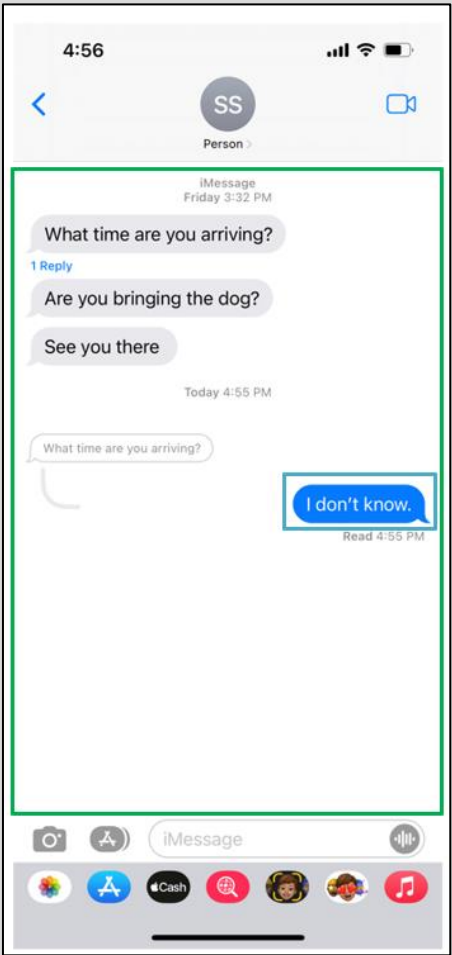
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[h] changing a visual element of the message entry location upon receipt of the first indication to match a first visual cue shared with the one of several messages;	The second example that meets this limitation relates to responding via the “Reply” option. Once the indication is recorded via a “Reply” input, at least two visual elements of the message entry location are changed to match a first visual cue shared with the message. First, the input box for the message entry location now appears in close proximity to the first message. Second, the message entry location includes the text “Reply” instead of “iMessage.” 

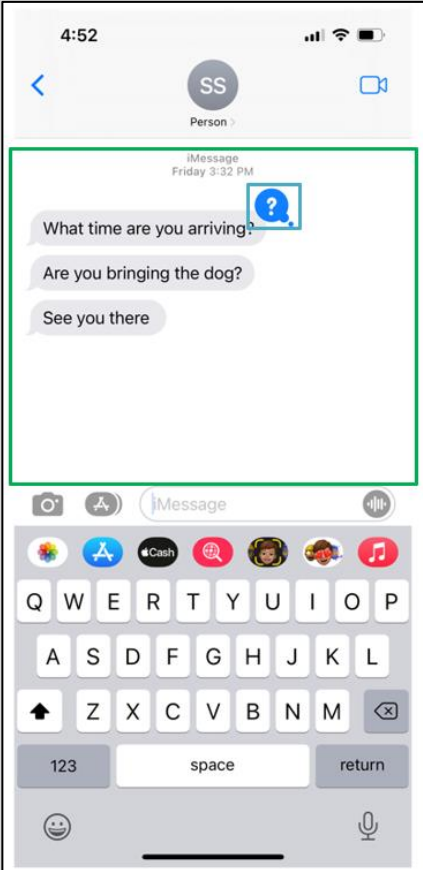
CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[i] receiving at least one new message entered at the message entry location;	The Messages app receives at least one new message entered at the message entry location. In the two examples above, the Messages app receives the “?” Tapback or the text reply “I’m not sure.”

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[j] transmitting, using the transmission unit, the at least one new message to the computerized network incorporating an indication of which one of the several messages the new message is responsive to; and	The Messages app transmits, using the transmission unit, the at least one new message to the computerized network incorporating an indication of which one of the several messages the new message is responsive to. In this way, the device receiving the message can correctly correlate the new message to the correct conversation, as shown, for example, in the following screenshots. 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[j] transmitting, using the transmission unit, the at least one new message to the computerized network incorporating an indication of which one of the several messages the new message is responsive to; and	

'304 Patent at 14[j] – Apple Claim Chart

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[j] transmitting, using the transmission unit, the at least one new message to the computerized network incorporating an indication of which one of the several messages the new message is responsive to; and	

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[k] displaying, at the display, the at least one new message alongside the one of the several messages and incorporating the first visual cue into the display of the first new message and the one of the several messages.	The Messages app displays, at the display, the at least one new message alongside the one of the several messages and incorporating the first visual cue into the display of the first new message and the one of the several messages. In the Tapback example shown below, the “?” is displayed with the first visual cue incorporated (e.g., it is in close proximity to and in a bubble above the first message) into the display of the first new message and the one of the several messages (e.g., the area where the messages are displayed). 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[k] displaying, at the display, the at least one new message alongside the one of the several messages and incorporating the first visual cue into the display of the first new message and the one of the several messages.	In the Reply example shown below, the new message (“I don’t know.”) is displayed in two ways, each of which have the first visual cue(s) incorporated. In the first way, the text “1 Reply” is displayed below the first message. The visual cue “Reply” that is used in the changed message entry location is thus incorporated into the display of the first new message and the one of the several messages. Also, the visual cue of proximity is also incorporated for the “1 Reply” text below the first message as well as for the “I don’t know.” text that appears directly under the repeated first message after “1 Reply” is clicked.

CLAIM LANGUAGE	REPRESENTATIVE PROOF
14[k] displaying, at the display, the at least one new message alongside the one of the several messages and incorporating the first visual cue into the display of the first new message and the one of the several messages.	In the second way the new message (“I don’t know.”) is displayed, the first message (“What time are you going to arrive?”) is repeated and the first new message (“I don’t know.”) is displayed directly below the repeated first message. Thus again, the visual cue of proximity is incorporated. 

CLAIM LANGUAGE	REPRESENTATIVE PROOF
15. The system of claim 14, wherein the display is a touch screen, and wherein the indication recorded is a tapping input at the display.	The Accused Devices infringe claim 14 as shown above. Moreover, in the iPhone, iPad, iPod touch, and Apple Watch Accused Devices, the display is a touch screen and the indication recorded is a tapping input at the display. Reply to specific messages on your iPhone, iPad, and iPod touch With iOS 14 and iPadOS 14 and later, you can reply directly to a specific message and use mentions to call attention to certain messages and people. How to reply to a specific message 1. Open a Messages conversation. 2. Touch and hold a message bubble, then tap the Reply button . 3. Type your message, then tap the Send button . You can reply to a specific message in conversations with one person and in groups. 