

EXHIBIT 6

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

U.S. Patent No. 11,991,600 – Apple Inc.

Claim 1

HBCU Messaging US, LP (“HBCU”) provides evidence of infringement of claim 1 of U.S. Patent No. 11,991,600 (hereinafter “the ’600 patent”) by Apple Inc. (“Apple”). In support thereof, HBCU provides the following claim charts.

“Accused Instrumentalities” as used herein is defined in HBCU’s Complaint. It is further understood, on information an belief, that Apple retains ownership of all relevant Apple-provided software on user’s Apple devices, and that such software is responsible, in material part, for the functionality of those devices.

These claim charts demonstrate Apple’s infringement, and provide notice of such infringement, by comparing each element of the asserted claims to corresponding components, aspects, and/or features of the Accused Instrumentalities. These claim charts are not intended to constitute an expert report on infringement. These claim charts include information provided by way of example, and not by way of limitation.

The analysis set forth below is based only upon information from available resources regarding the Accused Instrumentalities, as Apple has not yet provided any further non-public information. An analysis of Apple’s (or other third parties’) technical documentation and/or software source code may assist in fully identifying all infringing features and functionality. Accordingly, HBCU reserves the right to supplement this infringement analysis once such information is made available to HBCU. Furthermore, HBCU reserves the right to revise this infringement analysis, as appropriate, upon issuance of a court order construing any terms recited in the asserted claims. HBCU provides this evidence of infringement and related analysis without the benefit of claim construction or expert reports or discovery. HBCU reserves the right to supplement, amend or otherwise modify this analysis and/or evidence based on any such claim construction or expert reports or discovery.

Unless otherwise noted, HBCU contends that Apple directly infringes the ’600 patent in violation of 35 U.S.C. § 271(a) by selling, offering to sell, making, using, and/or importing the Accused Instrumentalities. The following exemplary analysis demonstrates that infringement. Unless otherwise noted, HBCU further contends that the evidence below supports a finding of indirect infringement under 35 U.S.C. §§ 271(b) and/or (c), in conjunction with other evidence of liability under one or more of those subsections. Apple makes, uses, sells, imports, or offers for sale in the United States, or has made, used, sold, imported, or offered for sale in the past, without authority, or induces others to make, use, sell, import, or offer for sale in the United States, or has induced others to make, use, sell, import, or offer for sale in the past, without authority products, equipment, or services that infringe at least claim 1 of the ’600 patent, including without limitation, the Accused Instrumentalities.

Unless otherwise noted, HBCU believes and contends that each element of each claim asserted herein is literally met through Apple’s provision of the Accused Instrumentalities. However, to the extent that Apple attempts to allege that any asserted claim element

HBCU MESSAGING US’S FIRST INFRINGEMENT ANALYSIS

is not literally met, HBCU believes and contends that such elements are met under the doctrine of equivalents. More specifically, in its investigation and analysis of the Accused Instrumentalities, HBCU did not identify any substantial differences between the elements of the patent claims and the corresponding features of the Accused Instrumentalities, as set forth herein. In each instance, the identified feature of the Accused Instrumentalities performs at least substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim element.

To the extent the chart of an asserted claim relies on evidence about certain specifically identified Accused Instrumentalities, HBCU asserts that, on information and belief, any similarly functioning instrumentalities also infringes the charted claim. HBCU reserves the right to amend this infringement analysis based on other products made, used, sold, imported, or offered for sale by Apple. HBCU also reserves the right to amend this infringement analysis by citing other claims of the ’600 patent, not listed in the claim chart, that are infringed by the Accused Instrumentalities. HBCU further reserves the right to amend this infringement analysis by adding, subtracting, or otherwise modifying content in the “Accused Instrumentalities” column of each chart.

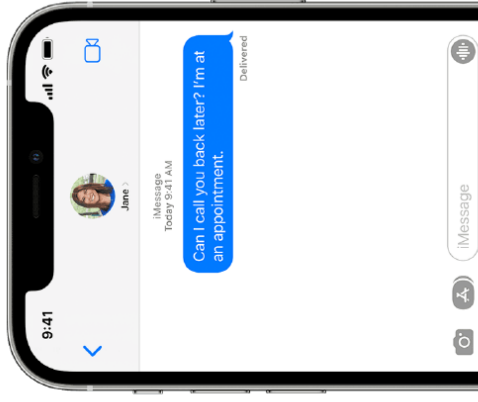
Claim 1	Accused Instrumentalities
<p>1. A method performed by a sending mobile phone that transmits short message service (SMS) messages and non-SMS based packet switched messages, the method comprising:</p>	<p>The Accused Instrumentalities transmit short message service (SMS) messages and non-SMS based packet switched messages.</p> <p><i>The Accused Instrumentalities include a sending mobile phone that transmits SMS messages.</i></p> <p>Specifically, the iMessage system on the Apple iPhone sends SMS messages to other cell phones that appear in green bubbles on the iPhone device.</p>

What is the difference between iMessage and SMS/MMS?

Learn why some of your message bubbles are blue or green.

You can [use the Messages app on your iPhone, iPad, or iPod touch to send messages](#). Those messages are sent as iMessage or SMS/MMS. Learn more about the difference between the message types.

iMessage



iMessages are texts, photos, or videos that you send to another iPhone, iPad, iPod touch, or Mac over Wi-Fi or cellular-data networks. These messages are always encrypted and appear in blue text bubbles. To turn iMessage on or off, go to Settings > Messages.

SMS/MMS



If you aren't using iMessage, you can use SMS/MMS. These messages are texts and photos that you send to other cell phones or another iPhone, iPad, or iPod touch. SMS/MMS messages aren't encrypted and appear in green text bubbles on your device.

See: Exhibit 16, What is the difference between iMessage and SMS/MMS?

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

[T]he iMessage system provides for messages to be sent and received between devices in packet-switched form via the Internet, i.e., WLAN or WPAN, or alternatively via SMS.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

The Accused Instrumentalities include a sending mobile phone that transmits non-SMS based packet switched messages.

Specifically, the iMessage system on the Apple iPhone sends non-SMS based packet switched messages to other Apple iPhones that appear in blue bubbles on the iPhone device. These non-SMS messages are sent over Wi-Fi or cellular data networks, making them packet switched messages.

What is the difference between iMessage and SMS/MMS?

Learn why some of your message bubbles are blue or green.

You can [use the Messages app on your iPhone, iPad, or iPod touch to send messages](#). Those messages are sent as iMessage or SMS/MMS. Learn more about the difference between the message types.

iMessage



iMessages are texts, photos, or videos that you send to another iPhone, iPad, iPod touch, or Mac over Wi-Fi or cellular-data networks. These messages are always encrypted and appear in blue text bubbles. To turn iMessage on or off, go to Settings > Messages.

SMS/MMS



if you aren't using iMessage, you can use SMS/MMS. These messages are texts and photos that you send to other cell phones or another iPhone, iPad, or iPod touch. SMS/MMS messages aren't encrypted and appear in green text bubbles on your device.

Sec: Exhibit 16, What is the difference between iMessage and SMS/MMS?

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

[T]he iMessage system provides for messages to be sent and received between devices in packet-switched form via the Internet, i.e., WLAN or WPAN, or alternatively via SMS.

See: Exhibit 17, Apple Brief, dated 6/15/22, at 5.

retrieving a destination address of a message from the message, wherein the destination address is a phone number of a receiving mobile phone;

The Accused Instrumentalities perform retrieving a destination address of a message from the message, wherein the destination address is a phone number of a receiving mobile phone.

The sending mobile phone performs retrieving a destination address of a message from the message.

The patent specification describes that the message includes the destination phone number. Figure 6B, for example, demonstrates this teaching:

```
<message>
<to>
+1 555 1234
</to>
<body>
Hi there!
</body>
<attachment>
<photo>
0xf6,0x34,0xa7...
</photo>
<voicemail>
0xf6,0x34,0xa7...
</voicemail>
</attachment>
</message>
```

FIG. 6B

See: Exhibit 11, '600 patent at 5:57. The specification describes other examples. See, e.g., *id.* at 7:14-47.

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

Specifically, when composing a new message for a new conversation, the user of the sending mobile phone can enter a destination address (either a phone number or email address) into the address field of a new message. The sending mobile device retrieves this destination address from the message while the remainder of the message is being composed.

How iMessage sends and receives messages securely

Users start a new iMessage conversation by entering an address or name. If they enter a phone number or email address, the device contacts the Apple Identity Service (IDS) to retrieve the public keys and APNs addresses for all of the devices associated with the addressee.

See: Exhibit 19, Apple Platform Security – May 2024, at 197.

Request for public keys at the IDS database

When composing a message, the sending device checks whether public keys are available for the receiving device in the IDS database by sending a request to the IDS database in this regard.

Exhibit 17, Apple Brief, dated 6/15/22, at 6.

The destination address retrieved by the sending mobile phone is the phone number of a receiving mobile phone.

Specifically, when composing a new message for a new conversation, the user of the sending mobile phone can enter either a phone number or email address into the address field of the message. In cases where the user of the sending mobile phone enters a phone number into the address field, the destination address retrieved by the sending mobile phone is the phone number of the receiving mobile phone.

How iMessage sends and receives messages securely

Users start a new iMessage conversation by entering an address or name. If they enter a phone number or email address, the device contacts the Apple Identity Service (IDS) to retrieve the public keys and APNs addresses for all of the devices associated with the addressee.

HBCU MESSAGING US’S FIRST INFRINGEMENT ANALYSIS

See: Exhibit 19, Apple Platform Security – May 2024, at 197.

Request for public keys at the IDS database

When composing a message, the sending device checks whether public keys are available for the receiving device in the IDS database by sending a request to the IDS database in this regard.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 6.

HBCU MESSAGING US’S FIRST INFRINGEMENT ANALYSIS

sending information representing at least the phone number of the receiving mobile phone;

The Accused Instrumentalities perform sending information representing at least the phone number of the receiving mobile phone.

The sending mobile phone sends information representing the phone number of the receiving mobile phone.

Specifically, after the sending mobile phone retrieves the phone number of the receiving mobile phone from the message being composed, the sending mobile phone sends a request message that includes information representative of the phone number of the receiving mobile phone to the Apple Identity Service (IDS) database.

How iMessage sends and receives messages securely

Users start a new iMessage conversation by entering an address or name. If they enter a phone number or email address, the device contacts the Apple Identity Service (IDS) to retrieve the public keys and APNs addresses for all of the devices associated with the addressee.

See: Exhibit 19, Apple Platform Security – May 2024, at 197.

Request for public keys at the IDS database

When composing a message, the sending device checks whether public keys are available for the receiving device in the IDS database by sending a request to the IDS database in this regard.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 6.

iMessage security overview

...

When a user turns on iMessage on a device, the device generates encryption and signing pairs of keys for use with the service. ... The public keys are sent to Apple Identity Service (IDS), where they are associated with the user’s phone number or email address, along with the device’s APNs address.

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

As users enable additional devices for use with iMessage, their encryption and signing public keys, APNs addresses, and associated phone numbers are added to the directory service. Users can also add more email addresses, which are verified by sending a confirmation link.

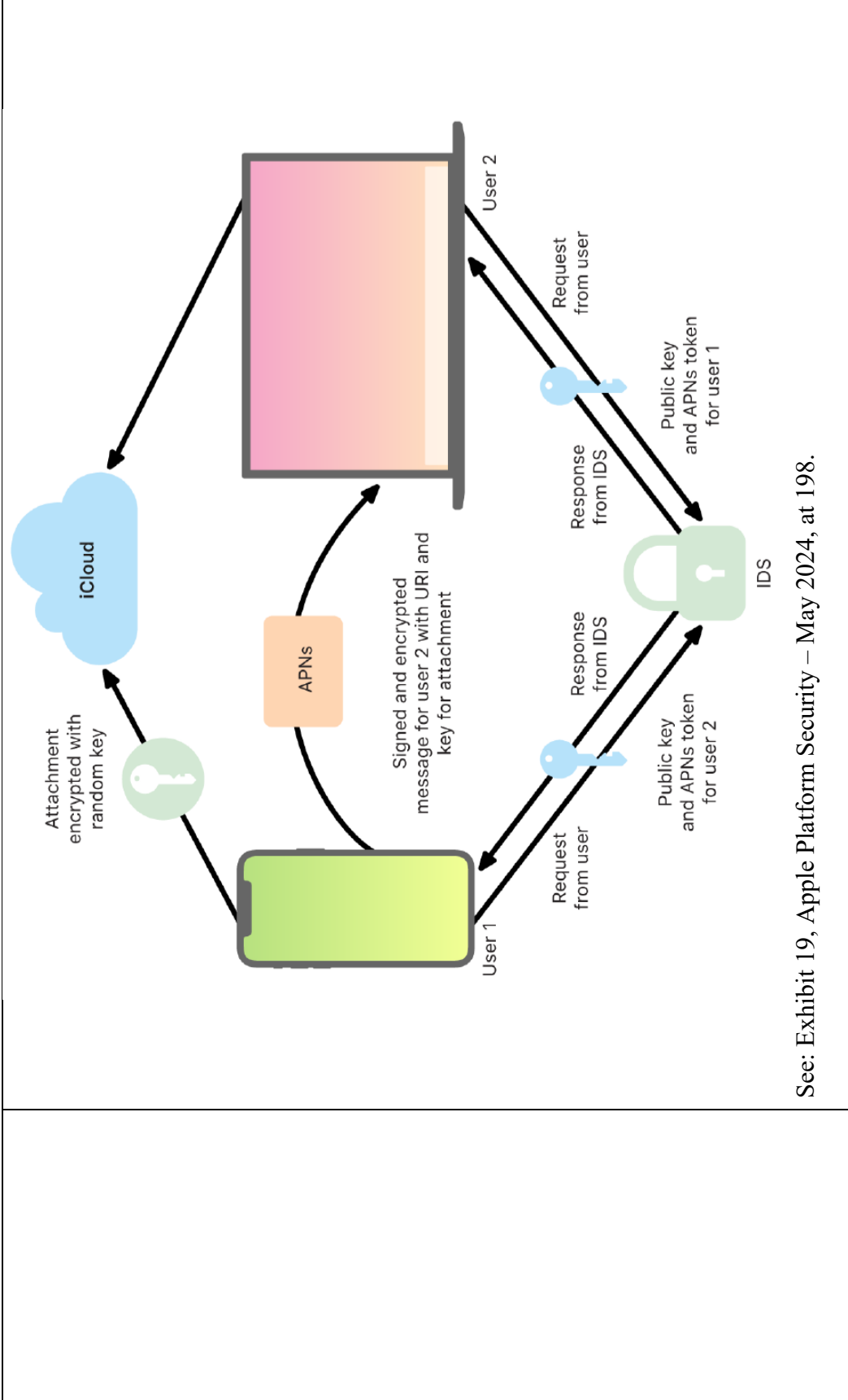
...

See: Exhibit 19, Apple Platform Security – May 2024, at 196.

The IDS [Apple Identity Service] ... is a database, which stores and manages the registration of Apple devices for altogether different services. For example, the database contains information about whether devices have been activated for using the iMessage service. ... [T]he task of the IDS is to manage and provide registration information for a number of services, e.g. including for "FaceTime", "Handoff", "HomeKit", "Continuity", "Finding Friends", "Maps", "Digital Touch" or for the synchronization of messages. ...

See: Apple Rejoinder, dated 11/02/16, at 13.

HBCU MESSAGING US’S FIRST INFRINGEMENT ANALYSIS



See: Exhibit 19, Apple Platform Security – May 2024, at 198.

receiving a response to the sending of the information;

The Accused Instrumentalities receive a response to the sending of the information.
The sending mobile phone receives a response to the sending of the information.

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

Specifically, after the sending mobile phone sends the request message that includes information representative of the phone number of the receiving mobile phone to the Apple IDS database, the Apple IDS sends a response message to the sending mobile phone. In some cases, the response message includes public keys associated with the phone number of the receiving mobile phone.

The sending mobile wireless device registered with iMessage decides to send the messages to the receiving device as SMS instead of iMessage if it does not receive public keys in response to the request to the IDS database for the receiving device. ... If public keys are received/available for the receiving device, the sending device basically sends the message via iMessage.

See: Exhibit 17, Apple Brief, dated 6/15/22, at 5-6.

HBCU MESSAGING US’S FIRST INFRINGEMENT ANALYSIS

	<p>The diagram illustrates the Apple Platform Security process. It shows two users, User 1 (a green smartphone) and User 2 (a pink tablet), connected to iCloud (a blue cloud) and APNs (an orange box). User 1 sends a 'Request from user' to the IDS (a green padlock icon). The IDS responds with a 'Response from IDS' containing a 'Public key and APNs token for user 2'. User 1 then sends an 'Attachment encrypted with random key' to iCloud. iCloud sends the 'Attachment encrypted with random key' to User 2. User 2 sends a 'Request from user' to the IDS. The IDS responds with a 'Response from IDS' containing a 'Public key and APNs token for user 1'. User 2 then sends a 'Signed and encrypted message for user 2 with URI and key for attachment' to APNs. APNs sends the 'Signed and encrypted message for user 2 with URI and key for attachment' to User 1.</p>
<p>based at least in part on the response, the accused instrumentalities selecting a bearer for the message, wherein the bearer is selected from a group including: SMS; iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station; and iMessage service supported by a wireless local area network (WLAN) connection between the sending mobile phone and a WLAN base station.</p> <p><i>Based at least on part on the response, the sending mobile phone performs automatically selecting a bearer for the message.</i></p>	<p>See: Exhibit 19, Apple Platform Security – May 2024, at 198.</p> <p>Based at least in part on the response, the Accused Instrumentalities select a bearer for the message, wherein the bearer is selected from a group including: SMS; iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station; and iMessage service supported by a wireless local area network (WLAN) connection between the sending mobile phone and a WLAN base station.</p> <p><i>Based at least on part on the response, the sending mobile phone performs automatically selecting a bearer for the message.</i></p>

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

a packet-switched message bearer supported by a cellular connection between the sending mobile phone and a cellular base station; and a packet-switched message bearer supported by a wireless local area network (WLAN) connection between the sending mobile phone and a WLAN base station;

Specifically, the response received from the IDS database may be either a positive response that includes the public keys of the receiving device, or a negative response that does not include any keys. Typically, if the receiving device is another iPhone, a positive response is received; and if the receiving phone is a non-Apple phone (e.g., an Android phone), the IDS will return a negative response. In the case where the sending phone receives a positive response (with public keys of the receiving device) from the IDS when composing a new message for a new conversation with the receiving device, the sending mobile phone automatically selects the iMessage service for sending the message as an iMessage. In the case where the sending phone receives a negative response (with no public keys) from the IDS when composing a new message for a new conversation with the receiving device, the sending mobile phone automatically selects SMS for sending the message.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer, if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

The bearer selected by the sending mobile phone is selected from a group including an SMS bearer.

Specifically, in the case where the sending phone receives a negative response (with no public keys) from the IDS when composing a new message for a new conversation with the receiving device, the sending mobile phone automatically selects SMS for sending the message.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer, if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

The bearer selected by the sending mobile phone is selected from a group including a packet-switched message bearer supported by a cellular connection between the sending mobile phone and a cellular base station.

Specifically, in the case where the sending phone receives a positive response (with public keys of the receiving device) from the IDS when composing a new message for a new conversation with the receiving device, the sending mobile phone automatically selects iMessage service for the message as an iMessage. If Wi-Fi is unavailable to the sending mobile phone, the sending mobile phone will automatically select iMessage service supported by a cellular data connection.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer, if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

If Wi-Fi is unavailable, iMessage will be sent over cellular data.

See: Exhibit 16, What is the difference between iMessage and SMS/MMS?

The bearer selected by the sending mobile phone is selected from a group including a packet-switched message bearer supported a wireless local area network (WLAN) connection between the sending mobile phone and a WLAN base station.

Specifically, in the case where the sending phone receives a positive response (with public keys of the receiving device) from the IDS when composing a new message for a new conversation with the receiving device, the sending mobile phone automatically selects the iMessage service for the message as an iMessage. If Wi-Fi is available to the sending mobile phone, the sending mobile phone will automatically select the iMessage service supported by the WiFi (WLAN) connection.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer,

HBCU MESSAGING US’S FIRST INFRINGEMENT ANALYSIS

	<p>if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.</p> <p>See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.</p> <p>If Wi-Fi is unavailable, iMessage will be sent over cellular data.</p> <p>See: Exhibit 16, What is the difference between iMessage and SMS/MMS?</p>
<p>after the automatically selecting, formatting the message for transmission via the selected bearer;</p>	<p>After the automatically selecting, the Accused Instrumentalities format the message for transmission via the selected bearer.</p> <p><i>After the sending mobile phone performs automatically selecting the bearer, the sending mobile phone formats the message for transmission via the selected bearer.</i></p> <p>Specifically, if the sending mobile phone selects SMS, the sending mobile phone formats the message using the short message transfer protocol; if the sending mobile phone selects the iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station, the sending mobile phone formats the message using a 3GPP data transfer protocol; and if the sending mobile phone selected the iMessage service supported by a wireless local area network (WLAN) connection between the sending mobile phone and a WLAN base station, the sending mobile phone formats the message using an IEEE 802.11 protocol.</p> <p>iMessages are texts, photos, or videos that you send to another iPhone, iPad, iPod touch, or Mac over Wi-Fi or cellular-data networks. These messages are always encrypted and appear in blue text bubbles. To turn iMessage on or off, go to Settings > Messages.</p> <p>If you aren't using iMessage, you can use SMS/MMS. These messages are texts and photos that you send to other cell phones or another iPhone, iPad, or iPod touch. SMS/MMS messages aren't encrypted and appear in green text bubbles on your device.</p> <p>See: Exhibit 16, What is the difference between iMessage and SMS/MMS?</p>

Wi-Fi specifications for Apple devices

The following are Wi-Fi specification details for Apple devices. Descriptions of the details are as follows:

- *802.11 compatibility and frequency band*: 802.11ax (Wi-Fi 6 and Wi-Fi 6E), 802.11ac (Wi-Fi 5), 802.11n (Wi-Fi 4), 802.11a, 802.11b/g and 2.4 GHz or 5 GHz.

See: Exhibit 21, **Wi-Fi specifications for Apple devices**.

SMS-SUBMIT: short message transfer protocol data unit containing user data (the short message), being sent from an MS to an SC

See: Exhibit 23, **3GPP TS 23.040 V8.6.0 (2009-09)**.

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

after the formatting, transmitting, by the sending mobile phone using the selected bearer, the message, to the receiving mobile phone; and

After the formatting, the Accused Instrumentalities transmit using the selected bearer, the message, to the receiving mobile phone.

After the formatting, the sending mobile phone transmits the message to the receiving mobile phone using the selected bearer.

Specifically, in the case where the sending phone selected SMS, the sending mobile phone transmits the message to the receiving mobile phone using SMS; in the case where the sending mobile phone selects the iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station, the sending mobile phone transmits the message using the iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station; and in the case where the sending mobile phone selects the iMessage service supported by a wireless local area network (WLAN) connection between the sending mobile phone and a WLAN base station, the sending mobile phone transmits the message using the iMessage service supported by the WLAN connection between the sending mobile phone and a WLAN base station.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer, if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

If Wi-Fi is unavailable, iMessage will be sent over cellular data.

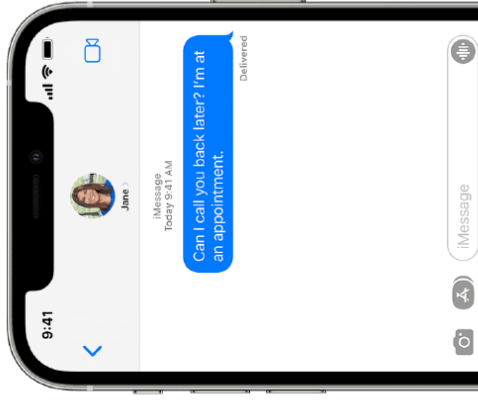
See: Exhibit 16, What is the difference between iMessage and SMS/MMS?

What is the difference between iMessage and SMS/MMS?

Learn why some of your message bubbles are blue or green.

You can [use the Messages app on your iPhone, iPad, or iPod touch to send messages](#). Those messages are sent as iMessage or SMS/MMS. Learn more about the difference between the message types.

iMessage



iMessages are texts, photos, or videos that you send to another iPhone, iPad, iPod touch, or Mac over Wi-Fi or cellular-data networks. These messages are always encrypted and appear in blue text bubbles. To turn iMessage on or off, go to Settings > Messages.

SMS/MMS



If you aren't using iMessage, you can use SMS/MMS. These messages are texts and photos that you send to other cell phones or another iPhone, iPad, or iPod touch. SMS/MMS messages aren't encrypted and appear in green text bubbles on your device.

See: Exhibit 16, What is the difference between iMessage and SMS/MMS?

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

performing the retrieving, the sending, the receiving, the automatically selecting, the formatting and the transmitting for at least first, second and third iterations,

The Accused Instrumentalities perform the retrieving, the sending, the receiving, the automatically selecting, the formatting and the transmitting for at least first, second and third iterations.

The sending mobile phone performs the retrieving, the automatically selecting and the formatting for at least a first iteration.

Specifically, the sending mobile phone performs the retrieving, automatically selecting and the formatting in a first iteration in the case where the sending phone receives a negative response (with no public keys) from the IDS when composing a new message for a new conversation with a first receiving device, in which case the sending mobile phone automatically selects SMS for the message, and formats the message for transmission using the short message transfer protocol.

The sending mobile phone performs the retrieving, the automatically selecting and the formatting for at least a second iteration.

Specifically, the sending mobile phone performs the retrieving, automatically selecting and the formatting in a second iteration in the case where (i) the sending phone receives a positive response (with public keys) from the IDS when composing a new message for a new conversation with a second receiving device and (ii) WiFi is unavailable to the sending mobile phone, in which case the sending mobile phone automatically selects the iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station and formats the message for transmission using a 3GPP data transfer protocol.

The sending mobile phone performs the retrieving, the automatically selecting and the formatting for at least a third iteration.

Specifically, the sending mobile phone performs the retrieving, automatically selecting and the formatting in a third iteration in the case where (i) the sending phone receives a positive response (with public keys) from the IDS when composing a new message for a new conversation with a third receiving device and (ii) WiFi is available to the sending mobile phone, in which case the sending mobile phone automatically selects the iMessage service supported by a wireless local area network (WLAN) connection between the sending mobile phone and a WLAN base station and formats the message for transmission using an IEEE 802.11 protocol.

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

wherein:
during the first iteration, a first message is sent to a first receiving mobile phone using the cellular connection; and during the third iteration, a third message is sent to a third receiving mobile phone using the packet-switched message bearer supported by the cellular connection; and
during the third iteration, a third message is sent to a third receiving mobile phone using the packet-switched message bearer supported by the WLAN connection;

The Accused Instrumentalities perform, during the first iteration, a first message is sent to a first receiving mobile phone using SMS; during the second iteration, a second message is sent to a second receiving mobile phone using iMessage supported by the cellular connection; and during the third iteration, a third message is sent to a third receiving mobile phone using iMessage service supported by the WLAN connection.

During the first iteration, a first message is sent to a first receiving mobile phone using the SMS bearer.

Specifically, during the first iteration, the sending phone receives a negative response (with no public keys) from the IDS when composing a new message for a new conversation with a first receiving device corresponding to, e.g., an Android device, in which case the sending mobile phone automatically selects SMS for the message, formats the message for transmission using the short message transfer protocol, and sends the message to the first receiving device using SMS.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer, if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

During the second iteration, a second message is sent to a second receiving mobile phone using the packet-switched message bearer supported by the cellular connection.

Specifically, during the second iteration, the sending phone receives a positive response (with public keys) from the IDS when composing a new message for a new conversation with a second receiving device corresponding to, e.g., a receiving Apple iPhone, but WiFi service is unavailable to the sending mobile phone, in which case the sending mobile phone automatically selects the iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station, formats the message for transmission using a 3GPP data transfer protocol, and sends the message to the

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

second receiving device using the iMessage service supported by a cellular connection between the sending mobile phone and a cellular base station.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer, if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

If Wi-Fi is unavailable, iMessage will be sent over cellular data.

See: Exhibit 16, What is the difference between iMessage and SMS/MMS?

During the third iteration, a third message is sent to a third receiving mobile phone using the packet-switched message bearer supported by the WLAN connection.

Specifically, during the third iteration, the sending phone receives a positive response (with public keys) from the IDS when composing a new message for a new conversation with a third receiving device corresponding to, e.g., another receiving Apple iPhone, and WiFi service is available to the sending mobile phone, in which case the sending mobile phone automatically selects iMessage service supported by the WLAN connection, formats the message for transmission using an 802.11 protocol, and sends the message to the third receiving device using the iMessage service supported by the WLAN connection.

[T]he confirmation of verification communicated to the sending device ... is the basis for the decision of the sending device: if it is negative, the message is sent via SMS bearer, if it is positive, the message can basically be sent as iMessage and thus via packet-switched bearer.

See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

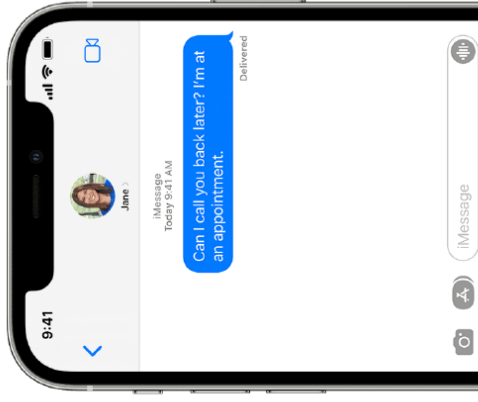
	<p>If Wi-Fi is unavailable, iMessage will be sent over cellular data.</p> <p>See: Exhibit 16, What is the difference between iMessage and SMS/MMS?</p>
--	--

What is the difference between iMessage and SMS/MMS?

Learn why some of your message bubbles are blue or green.

You can [use the Messages app on your iPhone, iPad, or iPod touch to send messages](#). Those messages are sent as iMessage or SMS/MMS. Learn more about the difference between the message types.

iMessage



iMessages are texts, photos, or videos that you send to another iPhone, iPad, iPod touch, or Mac over Wi-Fi or cellular-data networks. These messages are always encrypted and appear in blue text bubbles. To turn iMessage on or off, go to Settings > Messages.

SMS/MMS



If you aren't using iMessage, you can use SMS/MMS. These messages are texts and photos that you send to other cell phones or another iPhone, iPad, or iPod touch. SMS/MMS messages aren't encrypted and appear in green text bubbles on your device.

See: Exhibit 16, What is the difference between iMessage and SMS/MMS?

HBCU MESSAGING US’S FIRST INFRINGEMENT ANALYSIS

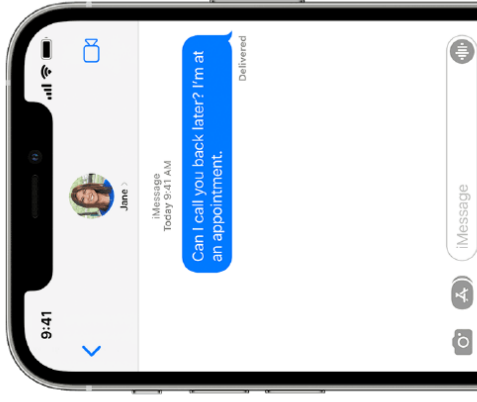
<p>wherein a packet switched message service (PSMS) is used to send the third message to the third receiving mobile phone;</p>	<p>The Accused Instrumentalities use a packet switched message service (PSMS) to send the third message to the third receiving mobile phone.</p> <p><i>A packet-switched message service (PSMS) is used to send the third message to the third receiving mobile phone.</i></p> <p>Specifically, during the third iteration, sending mobile phone automatically uses the iMessage service to send the third message to the third receiving mobile device. The iMessage service is a packet-switched message service.</p> <p>[T]he iMessage system provides for messages to be sent and received between devices in packet-switched form via the Internet, i.e., WLAN or WPAN, or alternatively via SMS.</p> <p>See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.</p>
<p>wherein the PSMS is a service for sending and receiving packet switched messages other than SMS, enhanced message service (EMS) and multimedia message service (MMS) messages;</p>	<p>Within the Accused Instrumentalities, the PSMS is a service for sending and receiving packet switched messages other than SMS, enhanced message service (EMS) and multimedia message service (MMS) messages.</p> <p><i>The PSMS is a service for sending and receiving packet switched messages other than SMS, enhanced message service (EMS) and multimedia message service (MMS) messages.</i></p> <p>Specifically, Apple's iMessage service is a service for sending and receiving packet switched messages other than SMS, EMS or MMS messages.</p> <p>[T]he iMessage system provides for messages to be sent and received between devices in packet-switched form via the Internet, i.e., WLAN or WPAN, or alternatively via SMS.</p> <p>See: Exhibit 17, Apple Brief, dated 6/15/22 , at 5.</p>

What is the difference between iMessage and SMS/MMS?

Learn why some of your message bubbles are blue or green.

You can [use the Messages app on your iPhone, iPad, or iPod touch to send messages](#). Those messages are sent as iMessage or SMS/MMS. Learn more about the difference between the message types.

iMessage



iMessages are texts, photos, or videos that you send to another iPhone, iPad, iPod touch, or Mac over Wi-Fi or cellular-data networks. These messages are always encrypted and appear in blue text bubbles. To turn iMessage on or off, go to Settings > Messages.

SMS/MMS



If you aren't using iMessage, you can use SMS/MMS. These messages are texts and photos that you send to other cell phones or another iPhone, iPad, or iPod touch. SMS/MMS messages aren't encrypted and appear in green text bubbles on your device.

See: Exhibit 16, What is the difference between iMessage and SMS/MMS?

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS

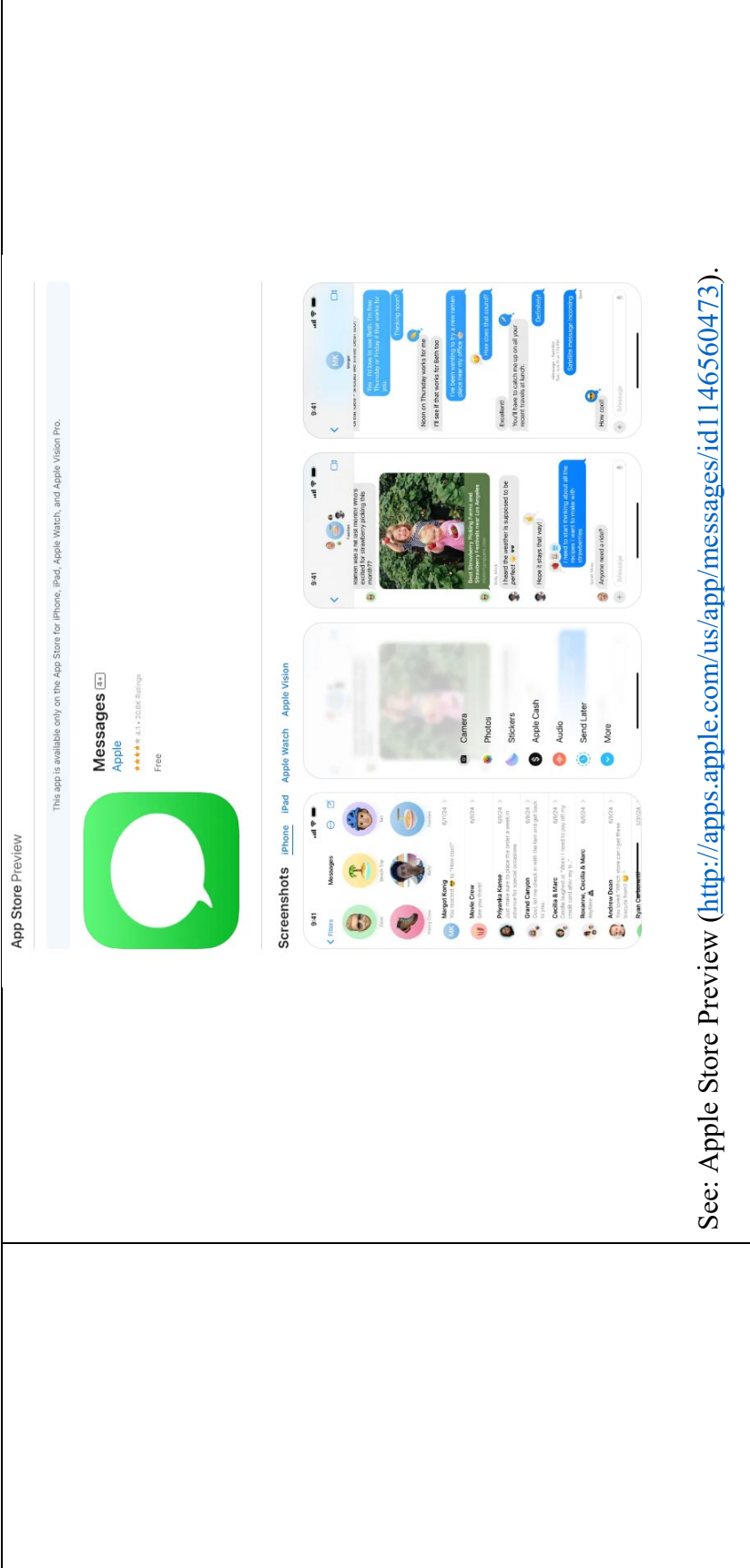
wherein a same messaging client on the sending mobile phone performs at least the retrieving, the sending, the automatically selecting, the formatting and the transmitting for each of the first, second and third iterations.

The Accused Instrumentalities employ a same messaging client on the sending mobile phone to perform at least the retrieving, the sending, the receiving, the automatically selecting, the formatting and the transmitting for each of the first, second and third iterations.

The sending mobile phone uses the same messaging client on the sending mobile phone to perform the retrieving, the sending, the receiving, the automatically selecting, the formatting and the transmitting for each of the first, second and third iterations.

Specifically, the iPhone includes a common messaging client for (i) retrieving a destination address from each of the first, second and third messages, (ii) automatically selecting a bearer for each of the first, second and third messages, (iii) formatting each of the first, second and third messages, and (iv) transmitting each of the first second and third messages. The same client corresponds to the Apple "Messages App".

HBCU MESSAGING US'S FIRST INFRINGEMENT ANALYSIS



See: Apple Store Preview (<http://apps.apple.com/us/app/messages/id1146560473>).

What is the difference between iMessage and SMS/MMS?

Learn why some of your message bubbles are blue or green.

You can [use the Messages app on your iPhone, iPad, or iPod touch to send messages](#). Those messages are sent as iMessage or SMS/MMS. Learn more about the difference between the message types.

iMessage



iMessages are texts, photos, or videos that you send to another iPhone, iPad, iPod touch, or Mac over Wi-Fi or cellular-data networks. These messages are always encrypted and appear in blue text bubbles. To turn iMessage on or off, go to Settings > Messages.

SMS/MMS



If you aren't using iMessage, you can use SMS/MMS. These messages are texts and photos that you send to other cell phones or another iPhone, iPad, or iPod touch. SMS/MMS messages aren't encrypted and appear in green text bubbles on your device.

See: Exhibit 16, What is the difference between iMessage and SMS/MMS?