IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

TRAXCELL TECHNOLOGIES, LLC, **Plaintiff,** **v.** **APPLE INC.,** **Defendant.**	**Case No. 6:21-cv-01314** **JURY TRIAL DEMANDED**

PLAINTIFF'S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Traxcell Technologies, LLC. ("Traxcell") files this Original Complaint, and demand for jury trial seeking relief from patent infringement by Apple, Inc. ("Defendant" or "Apple"), alleging infringement of the claims of U.S. Pat. No. 10,820,147 (collectively referred to as "Patent-in-Suit"), as follows:

I. THE PARTIES

1. Plaintiff Traxcell is a Texas Limited Liability Company, with its principal place of business located at Traxcell Technologies LLC, 617 North 4th Street, Suite "S," Waco, TX 76701.

2. Apple is a California corporation having regular and established places of business at 12535 Riata Vista Circle and 5501 West Parmer Lane, Austin, Texas. Apple designs, manufactures, uses, imports into the United States, sells, and/or offers for sale in the United States smartphones, tablets, iPods, desktop computers, and notebook computers that use Apple Maps. Apple markets, sells, and offers to sell its products and/or services, including those accused herein of infringement, to actual and potential customers and end-users located in Texas and in the judicial Western District of Texas such as at the Barton Creek Mall (2901 S. Capital of Texas Hwy) and in the Domain (3121 Palm Way, Austin, TX 78758) in Austin, Texas. Apple may be served with

process through its registered agent for service in Texas: CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

II. JURISDICTION AND VENUE

3. This is an action for patent infringement arising under the patent laws of the U.S., 35 U.S.C. §§ 1 et. seq. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1332(a) and 1338(a).

4. This Court has personal jurisdiction over Defendants because: Defendants are present within or has minimum contacts within the State of Texas and this judicial district; Defendants have purposefully availed itself of the privileges of conducting business in the State of Texas and in this judicial district; Defendants regularly conducts business within the State of Texas and within this judicial district; and Plaintiff's cause of action arises directly from Defendants' business contacts and other activities in the State of Texas and in this judicial district. The amount in controversy is more than $75,000.00.

5. Venue is proper in this judicial district per 28 U.S.C. §§ 1391 and 1400(b). Apple has committed acts of infringement in this judicial district and maintains regular and established places of business in this district, as set forth above. Apple has continuous and systematic business contacts with the State of Texas. Apple, directly or through subsidiaries or intermediaries (including distributors, retailers, contract manufacturers, and others), conducts its business extensively throughout Texas, by shipping, manufacturing, distributing, offering for sale, selling, and advertising (including the provision of interactive web pages) its products and services in the State of Texas and the Western District of Texas, including Apple Maps. Apple, directly or through subsidiaries or intermediaries (including distributors, retailers, contract manufacturers, and others), has

purposefully and voluntarily placed its infringing products and services into this District and into the stream of commerce with the intention and expectation that they will be purchased and used by consumers in this District, including Apple Maps. Apple has offered and sold and continues to offer and sell these infringing products and services in this District, including at physical Apple stores located within this District. Apple also has derived substantial revenues from infringing acts, including but not limited to advertising, business APIs, private usage, OEM usage, and an attribution of a portion of each device sale or lease to Apple Maps.

6. Apple has committed acts of infringement in this judicial district and has a regular and established place of business in this judicial district. Austin, where Apple employs over 5,000 employees and has several corporate campuses, is Apple's largest corporate hub outside of its headquarters in Cupertino, California.

III. INFRINGEMENT ('147 Patent (Attached and incorporated by reference))

7. On October 27, 2020, U.S. Patent No. 10,820,147 ("the '147 patent") entitled "Mobile wireless device providing off-line and on-line geographic navigation information" (attached as Exhibit C) was duly and legally issued by the U.S. Patent and Trademark Office. Traxcell owns the '147 patent by assignment.

8. The '147 Patent's Abstract states, "A mobile device, wireless network and their method of operation provide both on-line (connected) navigation operation, as well as off-line navigation from a local database within the mobile device. Routing according to the navigation system can be controlled by traffic congestion measurements made by the wireless network that allow the navigation system to select the optimum route based on expected trip duration."

9. The following preliminary exemplary chat provides Traxcell's allegations of infringement.

Exemplary Claim	Corresponding Structure in Accused Systems
A wireless communications system including:	
a first radio-frequency transceiver within a wireless mobile communications device and an associated first antenna to which the first radio-frequency transceiver is coupled,	Plaintiff contends each item listed on Exhibit B corresponds to this claim limitation because each Exhibit-B item is a device that provides communicative access to a wireless network by transceivers designed and used for radio-frequency communication and at least one antenna. When a wireless communication device transceivers and antennas are in communication, they are coupled. Further, in addition to being so coupled, the transceiver of each Exhibit-B item is also configured for RF-communication wireless communication networks, such as AT&T, Verizon, T-Mobile, and other US networks (Cellular or WLAN) via Apple Maps which comes preloaded on Exhibit-B items. Plaintiff contends each item listed on Exhibit B corresponds to this claim limitation because each Exhibit-B item includes a radio frequency transceiver. Wireless mobile communication device including to Apple's branded devices such as example: iPhone, iPad, MacBook, iPod Touch, iwatch etc. include radio-frequency transceivers and an associated antenna. When wireless communication device transceivers and antennas are in communication, they are coupled. Further, in addition to being so coupled, the transceiver of each Exhibit-B item is also configured for RF-communication with the wireless communication network. The following exemplifies this limitation's existence in Accused Systems:

Exemplary Claim	Corresponding Structure in Accused Systems

Step 20 Wi-Fi Antenna

- Remove the following Phillips screws from the upper cable bracket:
  - One 2.9 mm screw
  - One 2.2 mm screw

Wireless mobile communication device (Exhibit B), such as IPhone6 includes Wi-Fi antenna.

Step 23

Edit

- Remove the Wi-Fi antenna from the iPhone.

Be careful not to touch any metal to metal contact points with your bare fingers—use tweezers or gloves. Finger oils may disrupt conductivity. If you do touch any of these components, clean them with a degreaser like windex or isopropyl alcohol before reassembly.

Link: https://www.ifixit.com/Guide/iPhone+6+Wi-Fi+Antenna+Replacement/90315

Wireless mobile communication device (Exhibit B), such as IPhone includes antenna Board.

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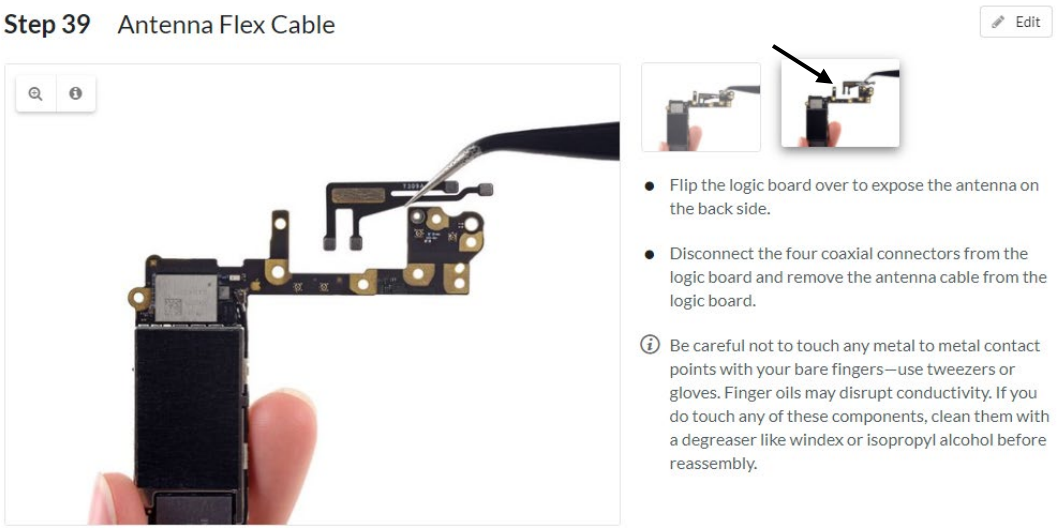
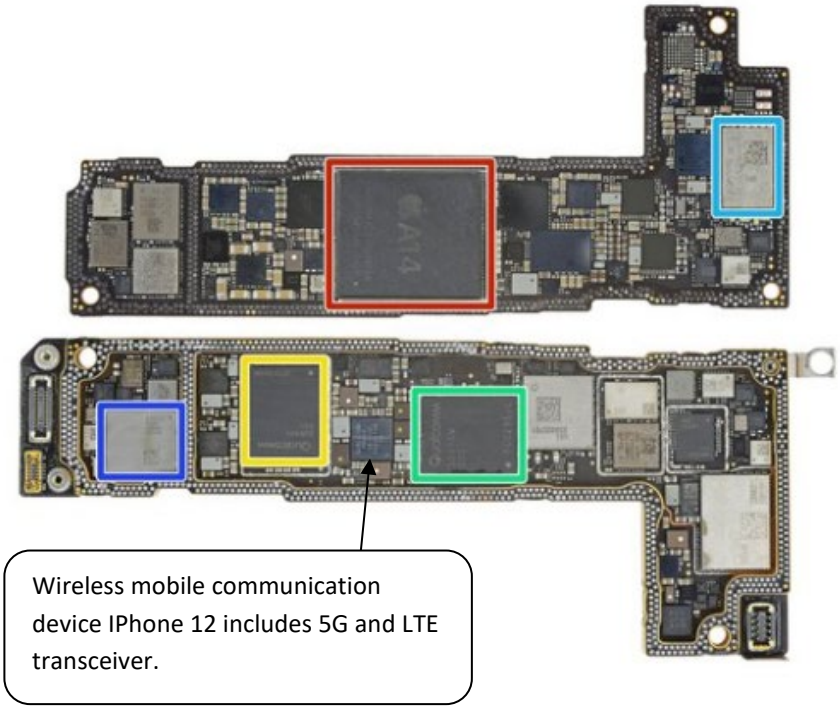
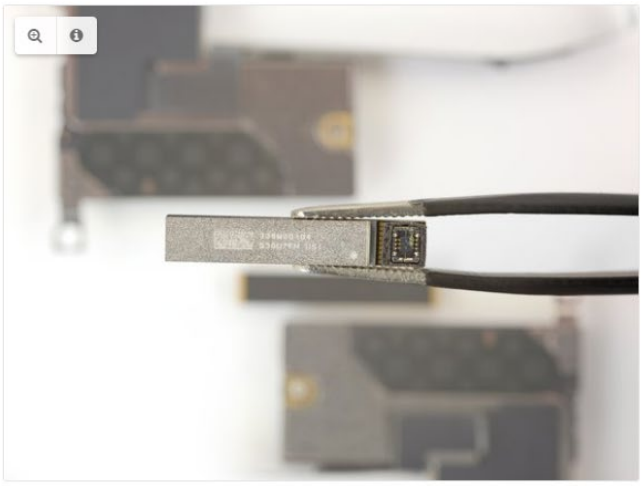
	 **Source:** Antenna of IPhone Teardown by Ifixit (Time-5:50/7:21) **Link:** https://www.ifixit.com/Guide/iPhone+6+Antenna+Flex+Cable+Replacement/90317

Exemplary Claim	Corresponding Structure in Accused Systems
	below the RF modules that were identified in the teardown. Qualcomm and Skyworks had the bulk of the RF modules so stand to gain the most from iPhone 12/12 Pro sales. In the below photo, the yellow rectangle is a Qualcomm SDR865 5G and LTE transceiver, the green is a Qualcomm SDX55M 5G modem-RF system and SMR526 intermediate frequency IC and the dark blue is an Avago 8200 high/mid power amplifier with integrated duplexer.  Wireless mobile communication device IPhone 12 includes 5G and LTE transceiver. **Link:** https://www.microwavejournal.com/blogs/9-pat-hindle-mwj-editor/post/34907-iphone-1212-pro-teardown-for-rf

Exemplary Claim	Corresponding Structure in Accused Systems
	Step 15 Edit   • Our US models come with some of these nifty 5G mmWave antenna modules—one embedded in the side of the frame, and another on the back of the logic board. ⓘ We think these have something to do with what Apple spent so much time talking about during their keynote? • The antenna embedded in the frame is a USI product, labeled 339M00104 S30U7FH. 5 comments **Source:** (Teardown of Apple 12 showing Antenna, 5G and LTE Transceiver component). **Link:** https://www.ifixit.com/Teardown/iPhone+12+and+12+Pro+Teardown/137669

Exemplary Claim	Corresponding Structure in Accused Systems

Connect to Wi-Fi on your iPhone, iPad, or iPod touch

Learn how to connect your device to a Wi-Fi network, including open, secure, public networks, and networks that you've connected with in the past.

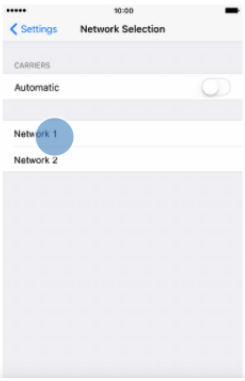
Connect to a Wi-Fi network

1. From your Home screen, go to Settings > Wi-Fi.
2. Turn on Wi-Fi. Your device will automatically search for available Wi-Fi networks.
3. Tap the name of the Wi-Fi network that you want to join. Before you can join the network, you might be asked to enter the network's password or agree to terms and conditions.

After you join the network, you'll see a blue checkmark ✓ next to the network and the connected Wi-Fi icon in the upper corner of your display. If you don't know the password to the Wi-Fi network, contact your network administrator.

Link: https://support.apple.com/en-in/HT202639

You can set your mobile phone to select a network automatically or you can select a network manually. If you select a network manually, your mobile phone will lose network connection when the selected network is out of range.



Exemplary Claim	Corresponding Structure in Accused Systems
	Link: https://devicesupport.swisscom.ch/apple/iphone-7-plus/connectivity/select-a-network/

Apple Maps preloaded in the all Apple`s Wireless mobile communication devices

Select version:

iOS 14

Table of Contents

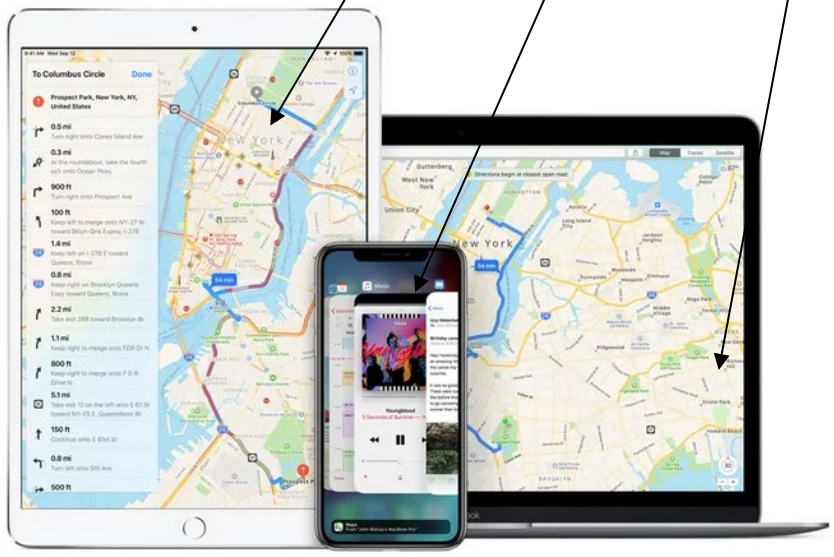
View maps on iPhone

In the Maps app, you can find your location on a map and zoom in and out to see the detail you need.

To find your location, iPhone must be connected to the internet, and Location Services must be on. (See Control the location information you share on iPhone.) Cellular data rates may apply. (See View or change cellular settings on iPhone.)

WARNING: For important information about navigation and avoiding distractions that could lead to dangerous situations, see Important safety information for iPhone.

Attachment 4 (Apple Maps application preloaded on Apple devices).



Apple Maps *Apple*

Exemplary Claim	Corresponding Structure in Accused Systems
	After years of preloading iPhones with Google Maps, Apple pivoted to its own mapping program in 2012 via iOS 6, a move that was problematic for users as it was riddled with flaws. The much-maligned mapping application even led some drivers into a potentially "life-threatening" wrong turn into the middle of a desert. **Source: (Apple Maps application preloaded on Apple Devices)** **Link:**https://www.usatoday.com/story/tech/2019/06/04/ios-13-apple-maps-upgrade-fall/1337077001/
wherein the first radio-frequency transceiver is configured for radio-frequency communication with a wireless communications network;	Plaintiff contends each item listed on Exhibit B corresponds to this claim limitation because each Exhibit-B item is a device that provides communicative access to a wireless network by transceivers designed and used for radio-frequency communication and at least one antenna. When a wireless communication device transceivers and antennas are in communication, they are coupled. Further, in addition to being so coupled, the transceiver of each Exhibit-B item is also configured for RF-communication wireless communication networks, such as AT&T, Verizon, T-Mobile, and other US networks (Cellular or WLAN) via Apple Maps which comes preloaded on Exhibit-B items. Plaintiff contends each item listed on Exhibit B corresponds to this claim limitation because each Exhibit-B item includes a radio frequency transceiver. Wireless mobile communication device including to Apple's branded devices such as example: iPhone, iPad, MacBook, iPod Touch, iwatch etc. include radio-frequency transceivers and an associated antenna. When wireless communication device transceivers and antennas are in communication, they are coupled. Further, in addition to being so coupled, the transceiver of each Exhibit-B item is also configured for RF-communication with the wireless communication network. The following exemplifies this limitation's existence in Accused Systems:

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	• Remove the Wi-Fi antenna from the iPhone.
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	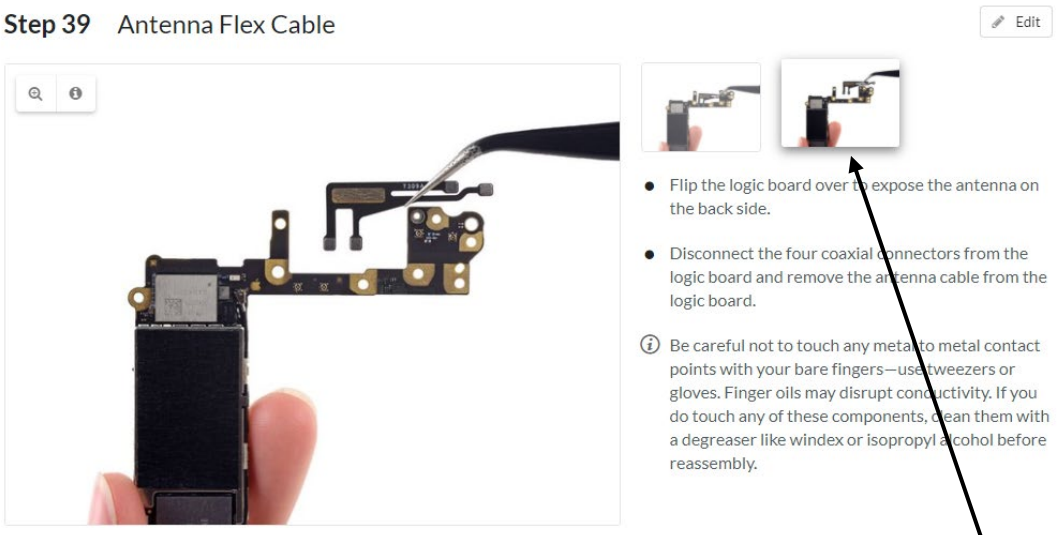 **Source:** Antenna of IPhone Teardown by Ifixit (Time-5:50/7:21) **Link:** https://www.ifixit.com/Guide/iPhone+6+Antenna+Flex+Cable+Replacement/90317 Wireless mobile communication device (Exhibit B), such as IPhone includes antenna Board.

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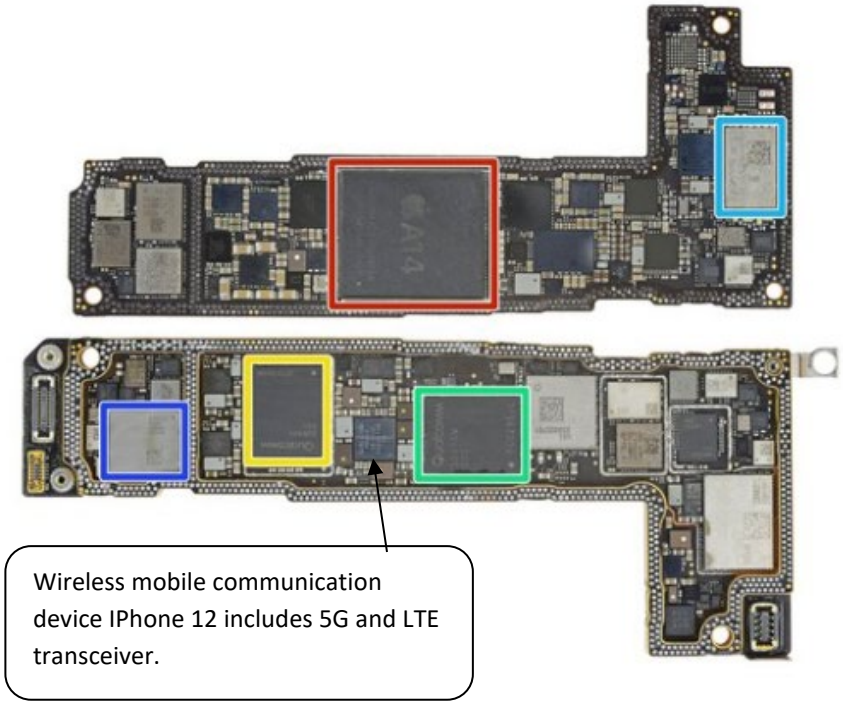
	below the RF modules that were identified in the teardown. Qualcomm and Skyworks had the bulk of the RF modules so stand to gain the most from iPhone 12/12 Pro sales. In the below photo, the yellow rectangle is a Qualcomm SDR865 5G and LTE transceiver, the green is a Qualcomm SDX55M 5G modem-RF system and SMR526 intermediate frequency IC and the dark blue is an Avago 8200 high/mid power amplifier with integrated duplexer.  **Link:** https://www.microwavejournal.com/blogs/9-pat-hindle-mwj-editor/post/34907-iphone-1212-pro-teardown-for-rf

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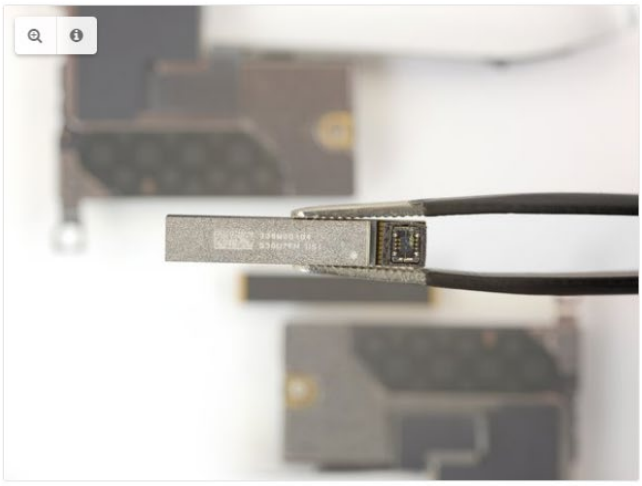
	Step 15 Edit   • Our US models come with some of these nifty 5G mmWave antenna modules—one embedded in the side of the frame, and another on the back of the logic board. ⓘ We think these have something to do with what Apple spent so much time talking about during their keynote? • The antenna embedded in the frame is a USI product, labeled 339M00104 S30U7FH. 5 comments **Source:** (Teardown of Apple 12 showing Antenna, 5G and LTE Transceiver component). **Link:** https://www.ifixit.com/Teardown/iPhone+12+and+12+Pro+Teardown/137669

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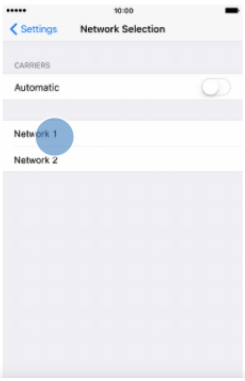

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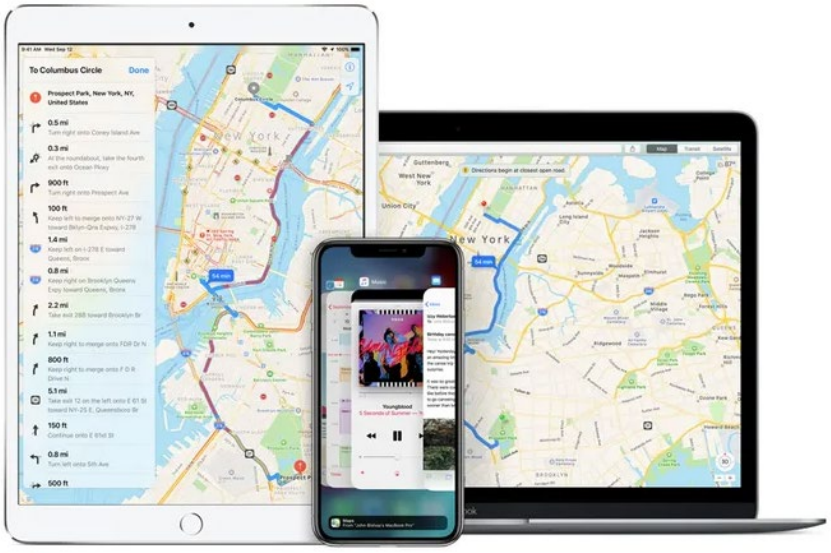
	Link: https://devicesupport.swisscom.ch/apple/iphone-7-plus/connectivity/select-a-network/ Select version: iOS 14 Table of Contents View maps on iPhone In the Maps app, you can find your location on a map and zoom in and out to see the detail you need. To find your location, iPhone must be connected to the internet, and Location Services must be on. (See Control the location information you share on iPhone.) Cellular data rates may apply. (See View or change cellular settings on iPhone.) WARNING: For important information about navigation and avoiding distractions that could lead to dangerous situations, see Important safety information for iPhone. **Attachment 4 (Apple Maps application preloaded on Apple devices).**  Apple Maps *Apple*

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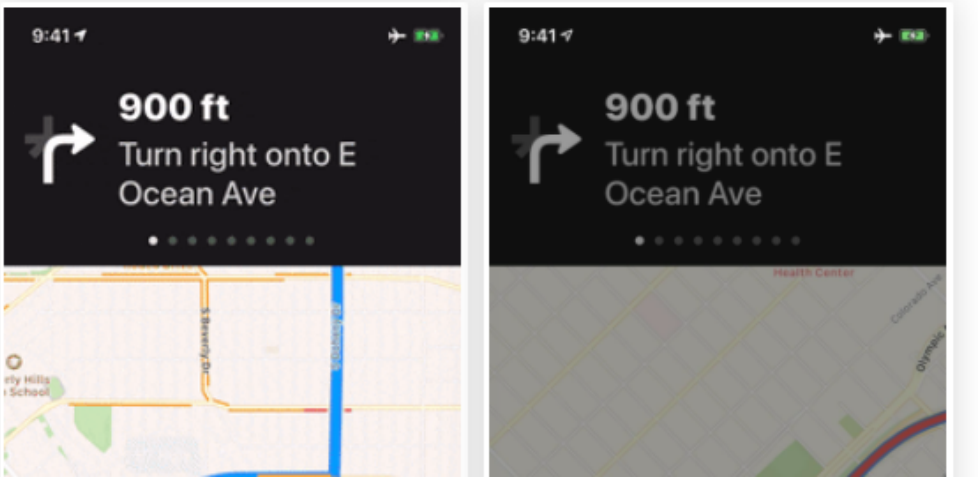
a first processor within the wireless mobile communications device coupled to the at least one first radio-frequency transceiver programmed to receive information indicative of a location of the wireless mobile communications device and generate an indication of a location of the wireless mobile communications device with respect to geographic features according to mapping information stored within the wireless mobile communications device,	Plaintiff contends the Exhibit-B-listed mobile-wireless-communications device's motherboard processor is programmed to process location-service information; i.e., to receive a location of the device from the wireless communications network and generate an indication of the device's location. For example, the application processor may use Apple Maps to obtain the device's location and provide direction from that location to a destination. Wireless mobile communication devices including to Apple's branded devices such as Iphones, MacBook, IPad and IPod (refer Exhibit B for complete list) has a processor for example, Quad-Core processor. When wireless communication device transceivers and processor are in communication, they are coupled. Further, the Location-based Service (LBS) provider, such as Apple Map, on the Exhibit-B utilizes the processor coupled to the transceiver to estimates/receive the location on mobile wireless communications devices (specifically one or more of the mobile wireless communications devices identified on Exhibit B) by utilizing wireless communication network or first computer. For example, the Application processor may use Apple Maps to view and find places around the globe. Apple map can also show your current location and provide direction (including with respect to geographic features such as nearby restaurants) from your location/source to any destination. In using Apple Maps App, the mobile wireless communication device's application processor generates signals for displaying on the device's screen a blue marker that shows the current location of the wireless mobile communication device. The Apple map estimates the location of the device from various sources: GPS (GPS uses satellites and knows your location within a few meters), Bluetooth, Wi-Fi (the location of nearby Wi-Fi networks helps Maps know where you are), and cell towers (cell tower can be accurate up to a few thousand meters). When Apple Maps isn't sure about your location, a light blue circle around the blue dot is shown. You might be anywhere within the light blue circle. The size of the

Exemplary Claim	Corresponding Structure in Accused Systems
	circle shows how precisely your location can be determined—the smaller the circle, the greater the precision. When Location Services is active, a black or white arrow icon appears in the status bar. Furthermore, Apple Maps App provides flexibility to download maps on internal memory of communication device such as iPhone, iPad, MacBook, iPod Touch, iwatch etc. (Exhibit B) and navigate offline. When internet is slow or mobile data is expensive, or communication device cannot connect to internet, an area can be saved to IPhone or IPad (Exhibit B) from Apple maps app and use it when offline. Communication device can use Offline maps for Navigation through the downloaded area without internet. The following exemplifies the existence of this limitation in Accused Systems: **How your device uses Location Services** With your permission, Location Services allows apps and websites (including Maps, Camera, Weather, and other apps) to use information from cellular[1], Wi-Fi[2], Global Positioning System (GPS)[3] networks, and Bluetooth[4] to determine your approximate location[5]. Apps that can show your location on the screen, including Maps, show your current (approximate) location using a blue marker. In Maps, if your location can't be determined precisely, you'll see a blue circle around the marker. The size of the circle shows how precisely your location can be determined—the smaller the circle, the greater the precision. When Location Services is active, a black or white arrow icon appears in the status bar. **Improve GPS accuracy** GPS accuracy depends on the number of visible GPS satellites. Locating all visible satellites can take several minutes, with accuracy gradually increasing over time. To improve GPS accuracy: • Make sure that you've set the date, time, and time zone correctly on the device in Settings > General > Date & Time. If possible, use Set Automatically. • Keep a clear view in several directions. Walls, vehicle roofs, tall buildings, mountains, and other obstructions can block line of sight to GPS satellites. When this happens, your device uses Wi-Fi or cellular networks to determine your position until the GPS satellites are visible again. **Crowd-sourced Wi-Fi and cellular Location Services** If Location Services is on, your device will periodically send the geo-tagged locations of nearby Wi-Fi hotspots and cell towers to Apple to augment Apple's crowd-sourced database of Wi-Fi hotspot and cell tower locations. If you're traveling (for example, in a car) and Location Services is on, a GPS-enabled iOS device will also periodically send GPS locations, travel speed, and barometric pressure information to Apple to be used for building up Apple's crowd-sourced road-traffic and indoor pressure databases. The crowd-sourced location data gathered by Apple is stored with encryption and doesn't personally identify you.

Exemplary Claim	Corresponding Structure in Accused Systems
	Link: https://support.apple.com/en-in/HT203033 Getting Offline Navigation To get directions, while connected to the internet, input the address you'd like to go to as you normally would in Apple Maps. Tap on "Go" once you've chosen the best route, then wait for the route to load and navigation to fully commence. With the route saved on Maps, you're free to turn off both your cellular and Wi-Fi connections. Navigation, along with alternate route selection (that saved) will still work as normal as long as "Location Services" is turned on, though, you won't be able to get additional services that require an internet connection, such as adding pit stops, in addition to traffic data and other information.  Link: https://ios.gadgethacks.com/how-to/download-maps-navigation-routes-for-offline-use-apple-maps-0184439/

Exemplary Claim	Corresponding Structure in Accused Systems

Find nearby attractions and services in Maps on iPhone

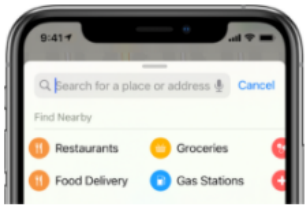
You can use the Maps app to find nearby attractions, services, and more.

Find a nearby service

Ask Siri. Say something like: "Find a gas station" or "Find coffee near me." Learn how to ask Siri.

Or you can tap the search field, tap a category such as Groceries or Hotels, then do any of the following:

- *See all results for the category:* Swipe up on the information card.
- *Change the search area:* Drag the map to another area or zoom in or out, then tap Search Here at the bottom of the information card.
- *See more information about a result:* Tap the item on the information card.



Source: Find nearby attractions and services in Maps on iPhone

Link: https://support.apple.com/en-in/guide/iphone/iphbaf51b2c0/ios

Plaintiff contends the Exhibit-B-listed mobile-wireless-communications device's application processor is programmed to process location based service information; i.e., to receive a location of the device from the wireless communications network and generate an indication of the device's location.

For example, the application processor may use Apple Maps to obtain the device's location and provide direction from that location to a destination. Wireless mobile communication device- including to Apple's branded devices such as IPhone, MacBook, IPad and IPod (refer Exhibit B for complete list) has a processor for example, Quad-Core processor. When wireless communication device transceivers and processor are in communication, they are coupled. Further, the Location-based Service (LBS) provider, such as Apple Map, on the Exhibit-B utilizes the processor coupled to the transceiver to estimates/receive the location on mobile wireless communications devices (specifically one or more of the mobile wireless communications devices identified on Exhibit B) by utilizing wireless communication network or first computer.

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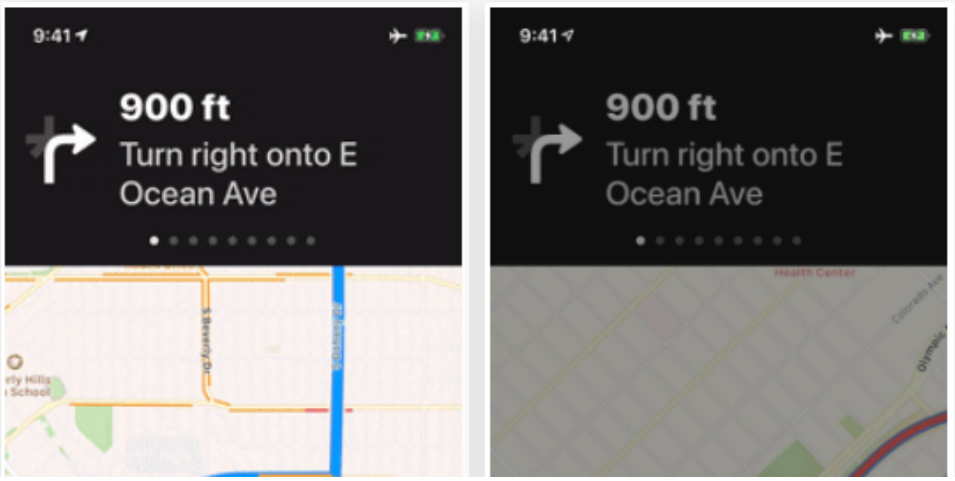
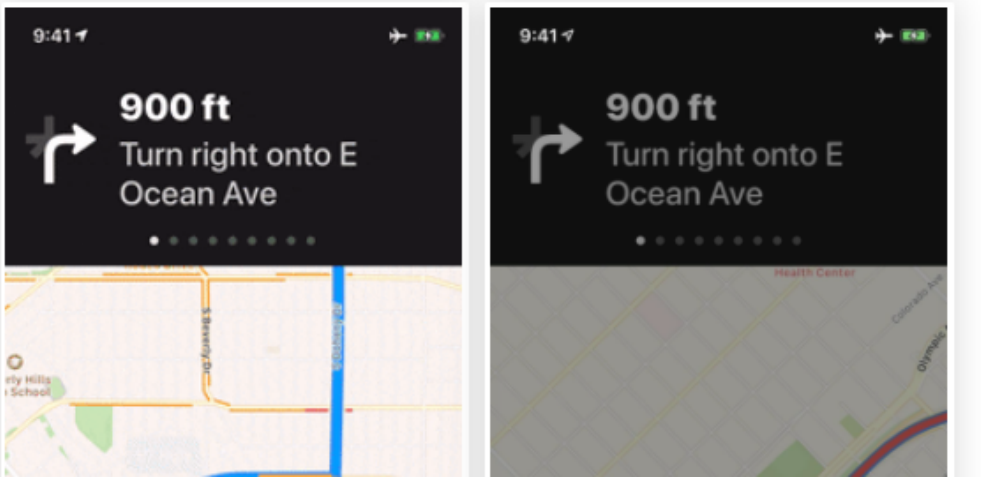
	For example, the Application processor may use Apple Maps to view and find places around the globe. Apple map can also show your current location and provide direction (including with respect to geographic features such as nearby restaurants) from your location/source to any destination. In using Apple Maps App, the mobile wireless communication device's application processor generates signals for displaying on the device's screen a blue marker that shows the current location of the wireless mobile communication device. The Apple map estimates the location of the device from various sources: GPS (GPS uses satellites and knows your location within a few meters), Bluetooth, Wi-Fi (the location of nearby Wi-Fi networks helps Maps know where you are), and cell towers (cell tower can be accurate up to a few thousand meters). When Apple Maps isn't sure about your location, a light blue circle around the blue dot is shown. You might be anywhere within the light blue circle. The size of the circle shows how precisely your location can be determined—the smaller the circle, the greater the precision. When Location Services is active, a black or white arrow icon appears in the status bar. Furthermore, Apple Maps App provides flexibility to download maps on internal memory of communication device such as iPhone, iPad, MacBook, iPod Touch, iwatch etc. (Exhibit B) and navigate offline. When internet is slow or mobile data is expensive, or communication device cannot connect to internet, an area can be saved to communication devices such as iPhone, iPad, MacBook, iPod Touch, iwatch etc. (Exhibit B) from Apple maps app and use it when offline. Communication device can use Offline maps for Navigation through the downloaded area without internet. The following exemplifies the existence of this limitation in Accused Systems: **How your device uses Location Services** With your permission, Location Services allows apps and websites (including Maps, Camera, Weather, and other apps) to use information from cellular[1], Wi-Fi[2], Global Positioning System (GPS)[3] networks, and Bluetooth[4] to determine your approximate location[5]. Apps that can show your location on the screen, including Maps, show your current (approximate) location using a blue marker. In Maps, if your location can't be determined precisely, you'll see a blue circle around the marker. The size of the circle shows how precisely your location can be determined—the smaller the circle, the greater the precision. When Location Services is active, a black or white arrow icon appears in the status bar.

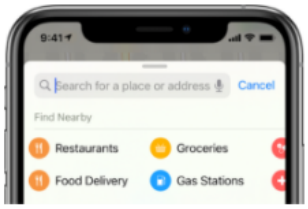
Exemplary Claim	Corresponding Structure in Accused Systems
	Improve GPS accuracy GPS accuracy depends on the number of visible GPS satellites. Locating all visible satellites can take several minutes, with accuracy gradually increasing over time. To improve GPS accuracy: • Make sure that you've set the date, time, and time zone correctly on the device in Settings > General > Date & Time. If possible, use Set Automatically. • Keep a clear view in several directions. Walls, vehicle roofs, tall buildings, mountains, and other obstructions can block line of sight to GPS satellites. When this happens, your device uses Wi-Fi or cellular networks to determine your position until the GPS satellites are visible again. **Crowd-sourced Wi-Fi and cellular Location Services** If Location Services is on, your device will periodically send the geo-tagged locations of nearby Wi-Fi hotspots and cell towers to Apple to augment Apple's crowd-sourced database of Wi-Fi hotspot and cell tower locations. If you're traveling (for example, in a car) and Location Services is on, a GPS-enabled iOS device will also periodically send GPS locations, travel speed, and barometric pressure information to Apple to be used for building up Apple's crowd-sourced road-traffic and indoor pressure databases. The crowd-sourced location data gathered by Apple is stored with encryption and doesn't personally identify you. Link: https://support.apple.com/en-in/HT203033

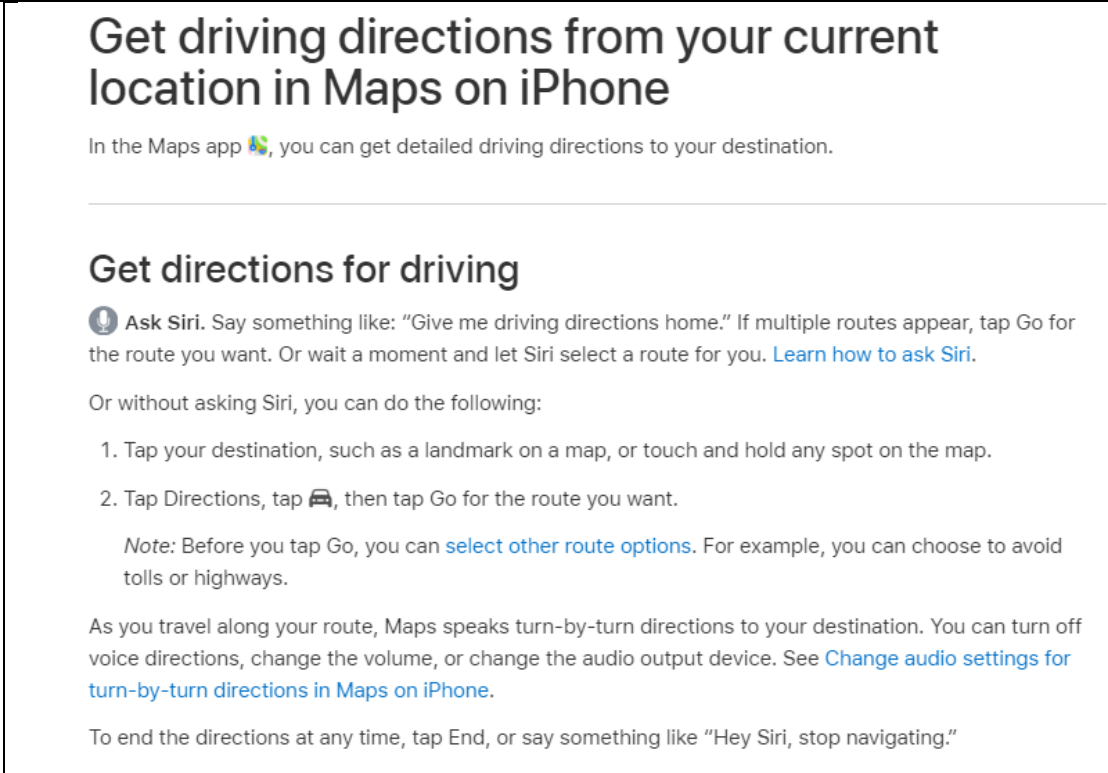
Exemplary Claim	Corresponding Structure in Accused Systems
	Getting Offline Navigation To get directions, while connected to the internet, input the address you'd like to go to as you normally would in Apple Maps. Tap on "Go" once you've chosen the best route, then wait for the route to load and navigation to fully commence. With the route saved on Maps, you're free to turn off both your cellular and Wi-Fi connections. Navigation, along with alternate route selection (that saved) will still work as normal as long as "Location Services" is turned on, though, you won't be able to get additional services that require an internet connection, such as adding pit stops, in addition to traffic data and other information.  Plaintiff contends the Exhibit-B-listed mobile-wireless-communications device's application processor is programmed to process location based service information; i.e., to receive a location of the device from the wireless communications network and generate an indication of the device's location. For example, the application processor may use Apple Maps to obtain the device's location and provide direction from that location to a destination. Wireless mobile communication device- including to Apple's branded devices such as IPhone, MacBook, IPad and IPod (refer Exhibit B for complete list) has a processor for example, Quad-Core processor. When wireless communication device transceivers and processor are in communication, they are coupled. Further, the Location-based Service (LBS) provider, such as Apple Map, on the Exhibit-B utilizes the processor coupled to the transceiver to estimates/receive the location on mobile wireless communications devices (specifically one or more of the mobile wireless communications devices identified on Exhibit B) by utilizing wireless communication network or first computer.

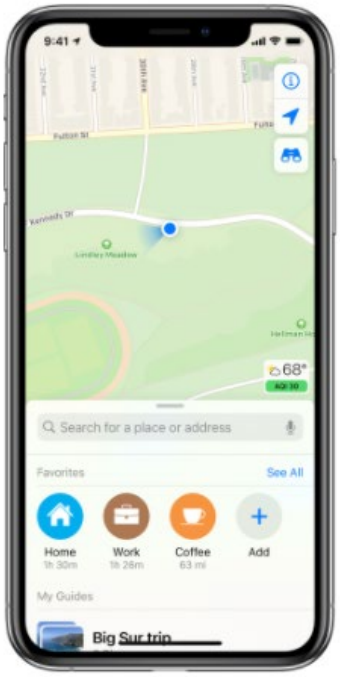
Exemplary Claim	Corresponding Structure in Accused Systems
	For example, the Application processor may use Apple Maps to view and find places around the globe. Apple map can also show your current location and provide direction (including with respect to geographic features such as nearby restaurants) from your location/source to any destination. In using Apple Maps App, the mobile wireless communication device's application processor generates signals for displaying on the device's screen a blue marker that shows the current location of the wireless mobile communication device. The Apple map estimates the location of the device from various sources: GPS (GPS uses satellites and knows your location within a few meters), Bluetooth, Wi-Fi (the location of nearby Wi-Fi networks helps Maps know where you are), and cell towers (cell tower can be accurate up to a few thousand meters). When Apple Maps isn't sure about your location, a light blue circle around the blue dot is shown. You might be anywhere within the light blue circle. The size of the circle shows how precisely your location can be determined—the smaller the circle, the greater the precision. When Location Services is active, a black or white arrow icon appears in the status bar. Furthermore, Apple Maps App provides flexibility to download maps on internal memory of communication device such as iPhone, iPad, MacBook, iPod Touch, iwatch etc. (Exhibit B) and navigate offline. When internet is slow or mobile data is expensive, or communication device cannot connect to internet, an area can be saved to communication devices such as iPhone, iPad, MacBook, iPod Touch, iwatch etc. (Exhibit B) from Apple maps app and use it when offline. Communication device can use Offline maps for Navigation through the downloaded area without internet. The following exemplifies the existence of this limitation in Accused Systems: **How your device uses Location Services** With your permission, Location Services allows apps and websites (including Maps, Camera, Weather, and other apps) to use information from cellular[1], Wi-Fi[2], Global Positioning System (GPS)[3] networks, and Bluetooth[4] to determine your approximate location[5]. Apps that can show your location on the screen, including Maps, show your current (approximate) location using a blue marker. In Maps, if your location can't be determined precisely, you'll see a blue circle around the marker. The size of the circle shows how precisely your location can be determined—the smaller the circle, the greater the precision. When Location Services is active, a black or white arrow icon appears in the status bar.

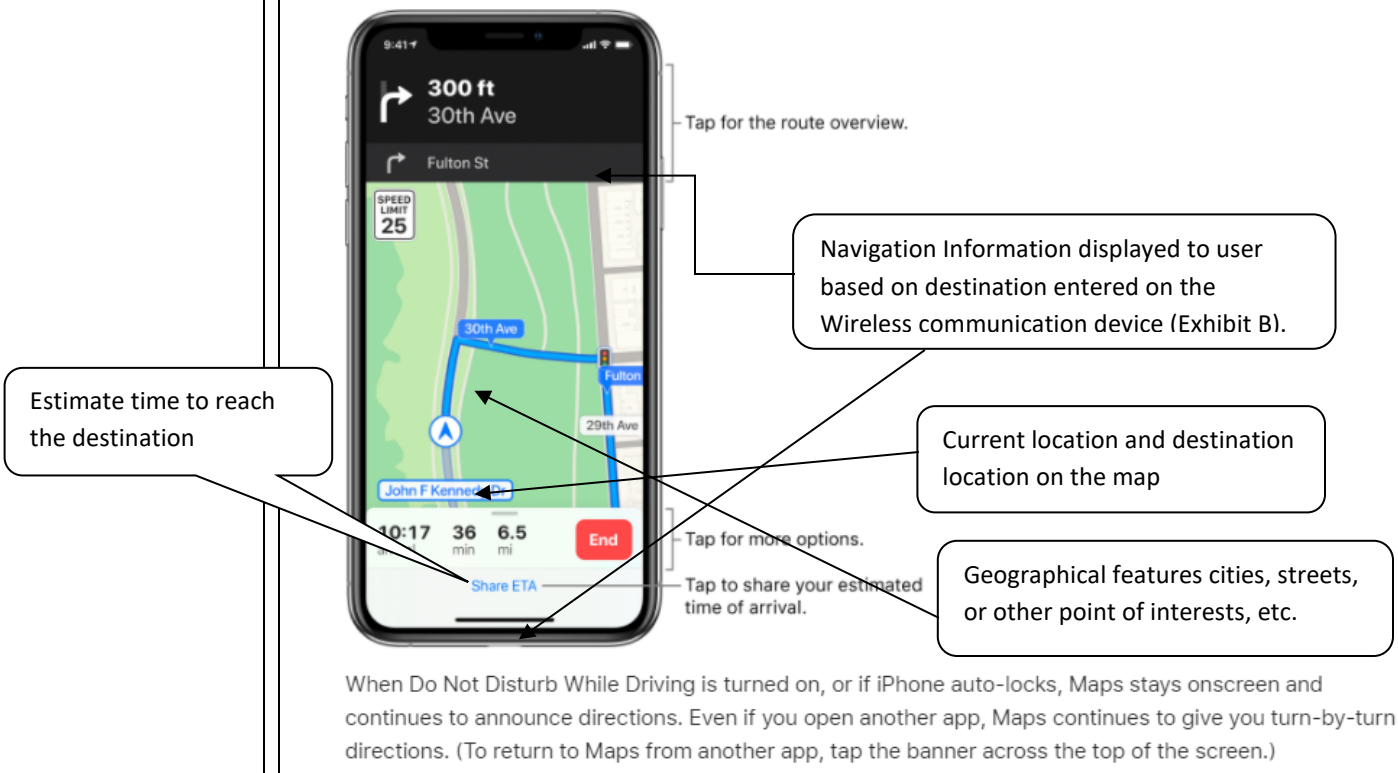
Exemplary Claim	Corresponding Structure in Accused Systems
	Improve GPS accuracy GPS accuracy depends on the number of visible GPS satellites. Locating all visible satellites can take several minutes, with accuracy gradually increasing over time. To improve GPS accuracy: • Make sure that you've set the date, time, and time zone correctly on the device in Settings > General > Date & Time. If possible, use Set Automatically. • Keep a clear view in several directions. Walls, vehicle roofs, tall buildings, mountains, and other obstructions can block line of sight to GPS satellites. When this happens, your device uses Wi-Fi or cellular networks to determine your position until the GPS satellites are visible again. **Crowd-sourced Wi-Fi and cellular Location Services** If Location Services is on, your device will periodically send the geo-tagged locations of nearby Wi-Fi hotspots and cell towers to Apple to augment Apple's crowd-sourced database of Wi-Fi hotspot and cell tower locations. If you're traveling (for example, in a car) and Location Services is on, a GPS-enabled iOS device will also periodically send GPS locations, travel speed, and barometric pressure information to Apple to be used for building up Apple's crowd-sourced road-traffic and indoor pressure databases. The crowd-sourced location data gathered by Apple is stored with encryption and doesn't personally identify you. Link: https://support.apple.com/en-in/HT203033

Exemplary Claim	Corresponding Structure in Accused Systems
	Getting Offline Navigation To get directions, while connected to the internet, input the address you'd like to go to as you normally would in Apple Maps. Tap on "Go" once you've chosen the best route, then wait for the route to load and navigation to fully commence. With the route saved on Maps, you're free to turn off both your cellular and Wi-Fi connections. Navigation, along with alternate route selection (that saved) will still work as normal as long as "Location Services" is turned on, though, you won't be able to get additional services that require an internet connection, such as adding pit stops, in addition to traffic data and other information.  Link: https://ios.gadgethacks.com/how-to/download-maps-navigation-routes-for-offline-use-apple-maps-0184439/

Exemplary Claim	Corresponding Structure in Accused Systems
	Find nearby attractions and services in Maps on iPhone You can use the Maps app to find nearby attractions, services, and more. **Find a nearby service** **Ask Siri.** Say something like: "Find a gas station" or "Find coffee near me." Learn how to ask Siri. Or you can tap the search field, tap a category such as Groceries or Hotels, then do any of the following: • *See all results for the category:* Swipe up on the information card. • *Change the search area:* Drag the map to another area or zoom in or out, then tap Search Here at the bottom of the information card. • *See more information about a result:* Tap the item on the information card.  Processor of the wireless communication device estimated the location of the wireless communication device (Exhibit B) from wireless communication network. The Blue dot showing estimated location. **Source:** Find nearby attractions and services in Maps on iPhone **Link:** https://support.apple.com/en-in/guide/iphone/iphbaf51b2c0/ios
and wherein the first processor determines user navigation information and displays the user navigation information according to the location of the wireless mobile communications device with respect to the geographic	Plaintiff contends the application processor of each Exhibit-B-listed item (i.e., mobile wireless processor processes location-service information, including displaying user navigation informa geographic features and a user-specified destination. For example, using Apple map app for mo Exhibit-B device's application processor) the device user locates the device's current location destination on the options, provided in the Apple map app. The user can then navigate (i.e., the current location to destination. The processor displays navigation in the Apple Maps app to dis processor will show the directions and use real-time traffic information to find the best route to The following exemplifies this limitation's existence in Accused Systems:

Exemplary Claim	Corresponding Structure in Accused Systems
features and a destination specified at the wireless mobile communications device,	 Get driving directions from your current location in Maps on iPhone In the Maps app, you can get detailed driving directions to your destination. Get directions for driving **Ask Siri.** Say something like: "Give me driving directions home." If multiple routes appear, tap Go for the route you want. Or wait a moment and let Siri select a route for you. Learn how to ask Siri. Or without asking Siri, you can do the following: 1. Tap your destination, such as a landmark on a map, or touch and hold any spot on the map. 2. Tap Directions, tap, then tap Go for the route you want. *Note:* Before you tap Go, you can select other route options. For example, you can choose to avoid tolls or highways. As you travel along your route, Maps speaks turn-by-turn directions to your destination. You can turn off voice directions, change the volume, or change the audio output device. See Change audio settings for turn-by-turn directions in Maps on iPhone. To end the directions at any time, tap End, or say something like "Hey Siri, stop navigating." Link: https://support.apple.com/en-in/guide/iphone/ipha84a94043/ios

Exemplary Claim	Corresponding Structure in Accused Systems
	Show your current location Tap . Your position is marked in the middle of the map. The top of the map is north. To show your heading instead of north at the top, tap . To resume showing north, tap or .  Link: https://support.apple.com/en-in/guide/iphone/iph10d7bdf26/ios

Exemplary Claim	Corresponding Structure in Accused Systems
	To end the directions at any time, tap End, or say something like "Hey Siri, stop navigating."  When Do Not Disturb While Driving is turned on, or if iPhone auto-locks, Maps stays onscreen and continues to announce directions. Even if you open another app, Maps continues to give you turn-by-turn directions. (To return to Maps from another app, tap the banner across the top of the screen.) Link: https://support.apple.com/en-in/guide/iphone/ipha84a94043/ios
	Plaintiff contends each Accused System includes at least one item listed on Exhibit A, each of least one antenna. Base station includes radio-frequency transceivers designed and used for rad When base-station transceivers and antennas are in communication, they are coupled. Further, antenna of each Exhibit-A item are also, by placement within a base station, physically couple The cell of the wireless communications network include base stations for transmission and rec communication devices or UEs or user devices (mobile phones, laptops, tablets, PDAs etc.). Th these base stations are coupled with at least one antenna for the function of transmission and re The following exemplifies this limitation's existence in Accused Systems:

Exemplary Claim	Corresponding Structure in Accused Systems
	How your device uses Location Services With your permission, Location Services allows apps and websites (including Maps, Camera, Weather, and other apps) to use information from cellular[1], Wi-Fi[2], Global Positioning System (GPS)[3] networks, and Bluetooth[4] to determine your approximate location[5]. **Link:** https://support.apple.com/en-in/HT203033
wherein the first processor further sends the user navigation information to the network as a number of segments,	Plaintiff contends the Exhibit-B-listed mobile-wireless-communications device's motherboard processor is programmed to process location-service information; i.e., to receive a location of the device from the wireless communications network and generate an indication of the device's location. For example, the application processor may use Apple Maps to obtain the device's location and provide direction from that location to a destination. Wireless mobile communication devices including to Apple's branded devices such as Iphones, MacBook, IPad and IPod (refer Exhibit B for complete list) has a processor for example, Quad-Core processor. When wireless communication device transceivers and processor are in communication, they are coupled. Further, the Location-based Service (LBS) provider, such as Apple Map, on the Exhibit-B utilizes the processor coupled to the transceiver to estimates/receive the location on mobile wireless communications devices (specifically one or more of the mobile wireless communications devices identified on Exhibit B) by utilizing wireless communication network or first computer. For example, the Application processor may use Apple Maps to view and find places around the globe. Apple map can also show your current location and provide direction (including with respect to geographic features such as nearby restaurants) from your location/source to any destination. In using Apple Maps App, the mobile wireless communication device's application processor generates signals for displaying on the device's screen a blue marker that shows the current location of the wireless mobile communication device. The Apple map estimates the location of the device from various sources: GPS (GPS uses satellites and knows your location within a few meters), Bluetooth, Wi-Fi (the location of nearby Wi-Fi networks helps Maps know where you are), and cell towers (cell tower can be accurate up to a few thousand meters). When Apple Maps isn't sure about your location, a light blue circle around the blue dot is shown. You might be anywhere within the light blue circle. The size of the circle shows how precisely your location can be determined—the smaller the circle, the

Exemplary Claim	Corresponding Structure in Accused Systems
	greater the precision. When Location Services is active, a black or white arrow icon appears in the status bar. Furthermore, Apple Maps App provides flexibility to download maps on internal memory of communication device such as iPhone, iPad, MacBook, iPod Touch, iwatch etc. (Exhibit B) and navigate offline. When internet is slow or mobile data is expensive, or communication device cannot connect to internet, an area can be saved to IPhone or IPad (Exhibit B) from Apple maps app and use it when offline. Communication device can use Offline maps for Navigation through the downloaded area without internet. Further, Apple Maps or any other location based application, on the Exhibit-B utilizing the processor can send the user navigation information to the network as a number of segments as to receive the traffic information for the segments, it is required to send the navigation information to the network as a number of segments.
wherein at least one other processor outside the network updates the user navigation information in conformity with traffic congestion information accessible to the at least one other processor outside the network by computing a numerical value for the segments corresponding to the expected time to travel through the segments,	Plaintiff contends that Apple Maps server or any other location-based services server (Exhibit D) corresponds to this claim limitation because each such location-based services server can be outside the network and needs to be contacted to update the user navigation information in conformity with traffic congestion information accessible to the server by computing a numerical value for the segments corresponding to the expected time to travel through the segments. The following exemplifies the existence of this limitation in Accused Systems:

Exemplary Claim	Corresponding Structure in Accused Systems

Location Services & Privacy

Location Services is designed to protect your information and enable you to choose what you share.

Location Services allows Apple and third-party apps and websites to gather and use information based on the current location of your iPhone or Apple Watch to provide a variety of location-based services. For example, an app might use your location data and location search query to help you find nearby coffee shops or theaters, or your device may set its time zone automatically based on your current location.

To use features such as these, you must enable Location Services on your iPhone and give your permission to each app or website before it can use your location data. Apps may request limited access to your location data (only when you are using the app or approximate location) or full access (even when you are not using the app or precise location).

For safety purposes, however, your iPhone's location information may be used when you place an emergency call to aid response efforts regardless of whether you enable Location Services.

Location Services uses GPS and Bluetooth (where those are available) along with crowd-sourced Wi-Fi hotspot and cell tower locations to determine your device's approximate location.

Your Apple Watch may use the location of your paired iPhone if it is nearby.

If Location Services is on, your iPhone will periodically send the geo-tagged locations of nearby Wi-Fi hotspots and cell towers (where supported by a device) in an anonymous and encrypted form to Apple, to be used for augmenting this crowd-sourced database of Wi-Fi hotspot and cell tower locations.

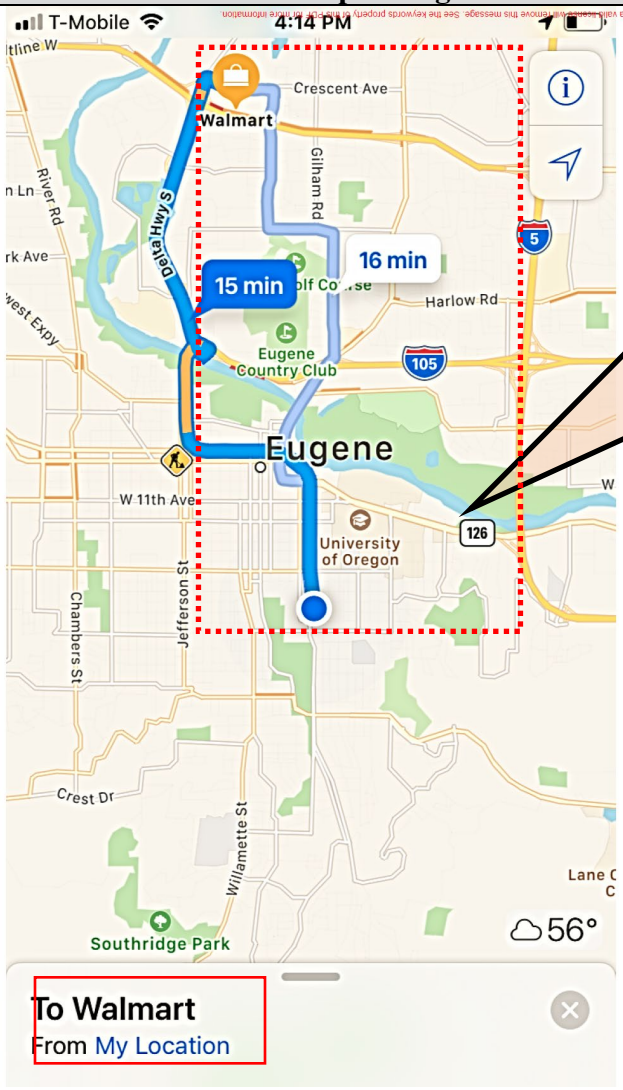
https://support.apple.com/en-us/HT207056

Maps and Privacy

Apple is committed to keeping personal information safe and has built privacy into the core of Maps. With Maps, no sign-in is required and it is not connected to an Apple ID in any way. Personalised features, such as suggesting departure time to make the next appointment, are created using on-device intelligence. Any data collected by Maps while using the app, like search terms, navigation routing and traffic information, is associated with random identifiers that continually reset to ensure the best possible experience and to improve Maps. Maps goes even further to obscure a user's location on Apple servers when searching for a location through a process called "fuzzing." Maps converts the precise location where the search originated to a less-exact one after 24 hours and does not retain a history of what has been searched or where a user has been.

Exemplary Claim	Corresponding Structure in Accused Systems
	The above proves the Apple Maps utilizes the Apple Servers for location information. This constitutes the second processor outside the network. https://www.apple.com/in/newsroom/2020/01/apple-delivers-a-new-redesigned-maps-for-all-users-in-the-united-states/

Exemplary Claim	Corresponding Structure in Accused Systems

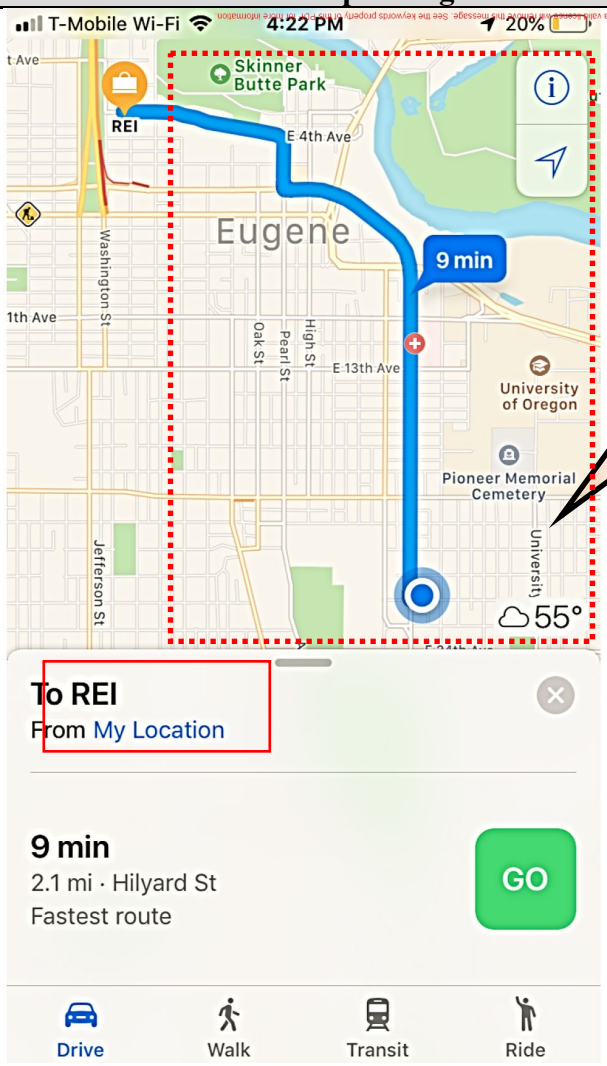


Navigation assistance provided by Apple Maps utilizes Apple Servers. Time and distance are providing the numerical value. Two different routes provided with different information regarding distance and time to reach the destination.

Apple Maps, using wireless telecommunications network, provides navigation assistance (directions) to a "user of a communications device" (Ex: iPhone) for travelling from a starting location (Ex: said user communication device's current location) to a destination location (Ex: Walmart).

Attachment 2 (To Walmart from My Location using Apple Maps) at 1.

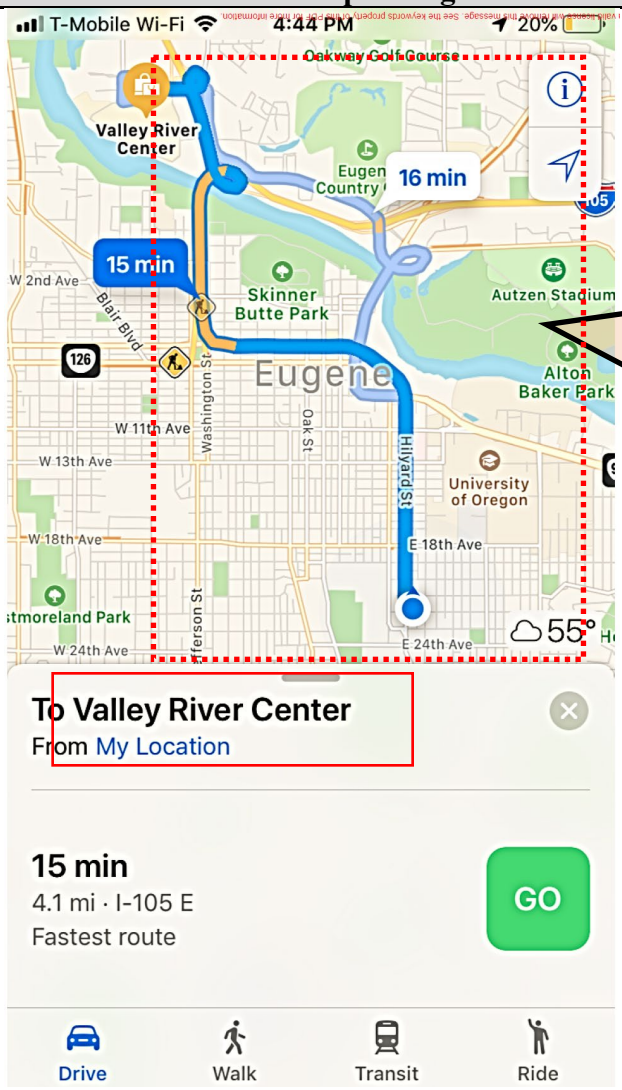
Exemplary Claim	Corresponding Structure in Accused Systems



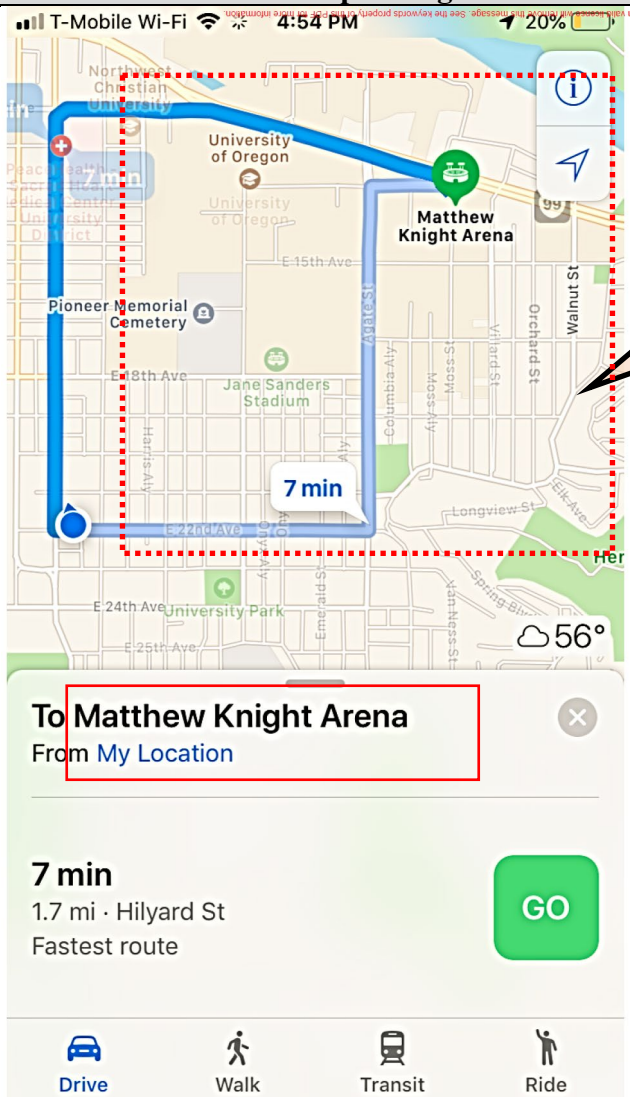
Navigation assistance provided by Apple Maps utilizes Apple Servers. Time and distance are providing the numerical value.

Apple Maps, using wireless telecommunications network, provides navigation assistance (directions) to a "user of a communications device" (Ex: iPhone) for travelling from a starting location (Ex: said user communication device's current location) to a destination location (Ex: REI).

Attachment 3 (To REI from My Location using Apple Maps) at 2.

Exemplary Claim	Corresponding Structure in Accused Systems
	 Navigation assistance provided by Apple Maps utilizes Apple Servers. Time and distance are providing the numerical value. Apple Maps, using wireless telecommunications network, provides navigation assistance (directions) to a "user of a communications device" (Ex: iPhone) for travelling from a starting location (Ex: said user communication device's current location) to a destination location (Ex: Valley River Center). **Attachment 4 (To Valley River Center from My Location using Apple Maps) at 3.**

Exemplary Claim	Corresponding Structure in Accused Systems



Navigation assistance provided by Apple Maps utilizes Apple Servers

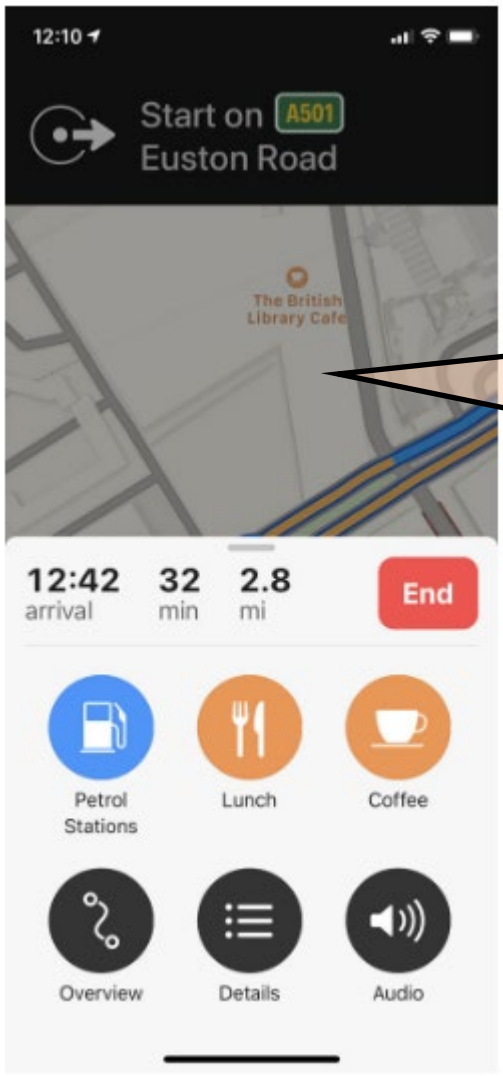
Apple Maps, using wireless telecommunication network, provides navigation assistance (directions) to a "user of a communications device" (Ex: iPhone) for travelling from a starting location (Ex: said user communication device's current location) to a destination location (Ex: Matthew Knight Arena).

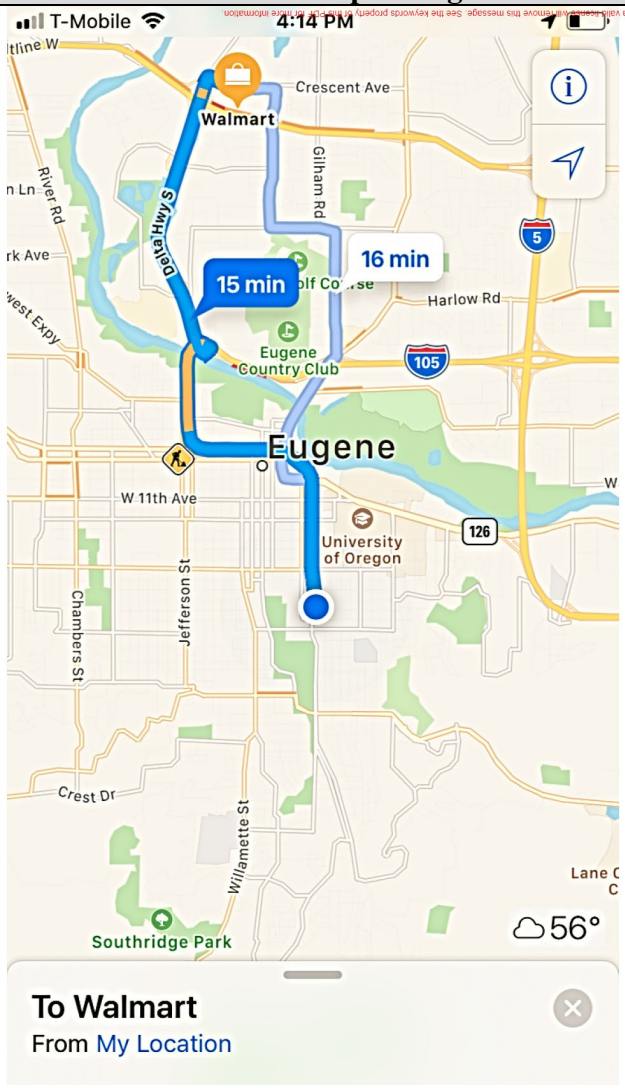
Attachment 5 (To Matthew Knight Arena from My Location using Apple Maps) at 4.

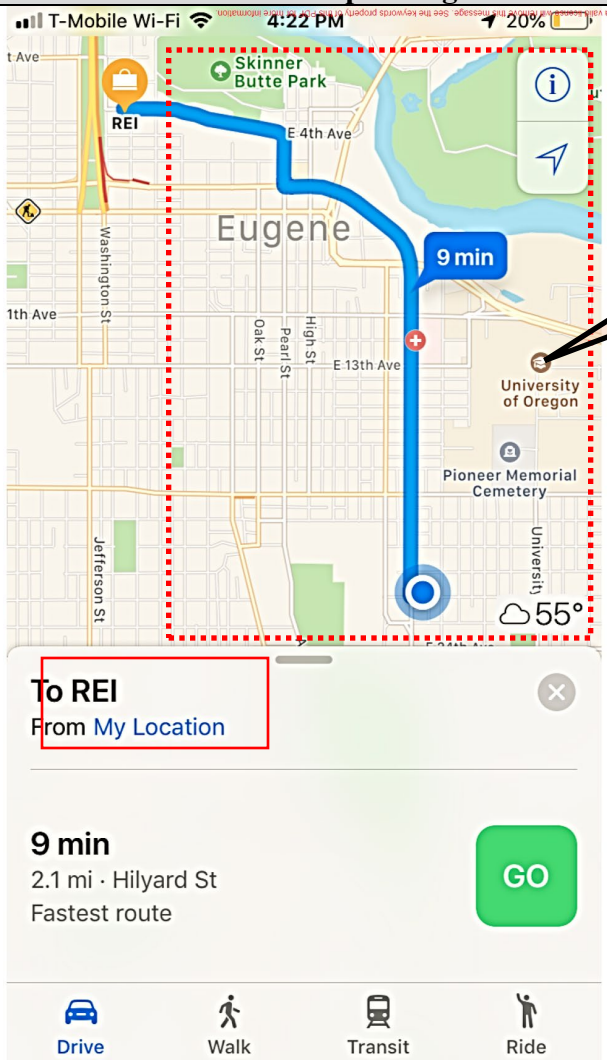
Set up detours on your journey

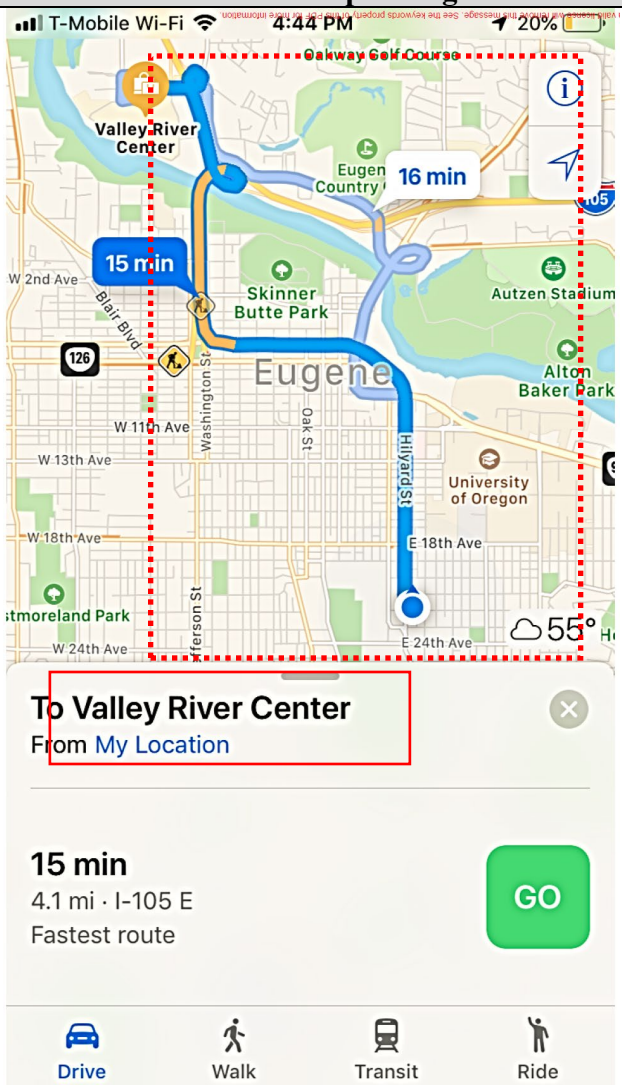
We've all been there: you're on a journey and somebody needs to go to the toilet. Or you realize you're almost out of petrol. Sudden changes to the plan are fine if you know the area, but can be a nightmare when using satnav.

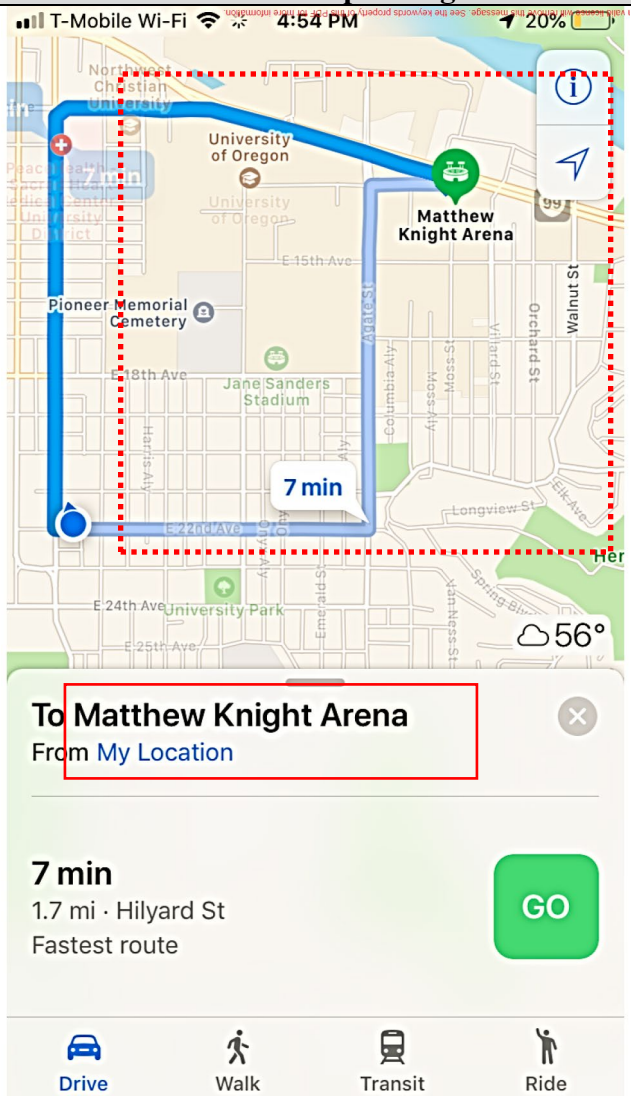
Exemplary Claim	Corresponding Structure in Accused Systems
	Fortunately, Apple Maps has a built-in feature that allows you to quickly set up detours along your journey, allowing you to quickly and easily find a route to the closest petrol station or services, depending on what you require. When on a journey, tap the bar at the bottom of the Maps screen that displays the ETA, distance and other useful information. Tapping the bar should reveal journey options, including Smart Suggestions to search for points of interest like restaurants and petrol stations. Find your desired detour and tap Go to reroute. Once you've refueled, Apple Maps should automatically resume directions to your original destination. If not, tap the 'Resume route to XX' banner at the top of the display. **The above proves ascertain that the Apple Maps utilizes Apple Servers to update the real-time information, Also, based on the user selection, the numerical value such distance and time updated in real-time.**

Exemplary Claim	Corresponding Structure in Accused Systems
	 Numerical value calculated for the distance and time parameter on Apple Maps. Apple Maps utilizes the Apple Servers to calculate these numerical values. https://www.macworld.co.uk/how-to/use-apple-maps-iphone-3658346/
updates the user navigation information in conformity with the numerical values for the segments, and sends the updated user navigation	Plaintiff contends that Apple Maps server or any other location-based server corresponds to this claim limitation because each such server updates the user navigation information in conformity with the numerical values for the segments and sends the updated user navigation information to the wireless mobile communications device (Exhibit B). The following exemplifies the existence of this limitation in Accused Systems:

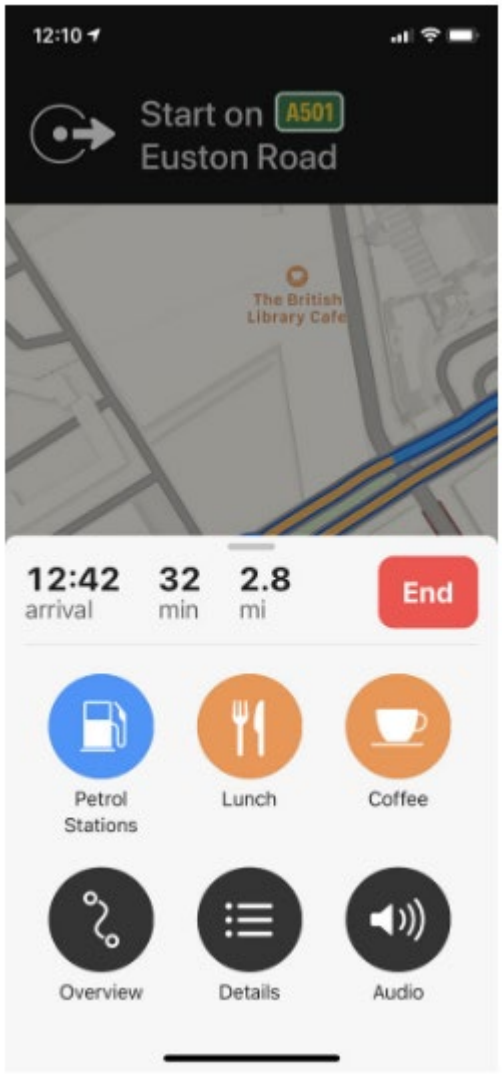
Exemplary Claim	Corresponding Structure in Accused Systems
information to the wireless mobile communications device;	 **Attachment 2 (To Walmart from My Location using Apple Maps) at 1.**

Exemplary Claim	Corresponding Structure in Accused Systems
	 Navigation assistance provided by Apple Maps utilizes Apple Servers. Time and distance are providing the numerical value. Apple Maps, using wireless telecommunications network, provides navigation assistance (directions) to a "user of a communications device" (Ex: iPhone) for travelling from a starting location (Ex: said user communication device's current location) to a destination location (Ex: REI). **Attachment 3 (To REI from My Location using Apple Maps) at 2.**

Exemplary Claim	Corresponding Structure in Accused Systems
	 **Attachment 4 (To Valley River Center from My Location using Apple Maps) at 3.**

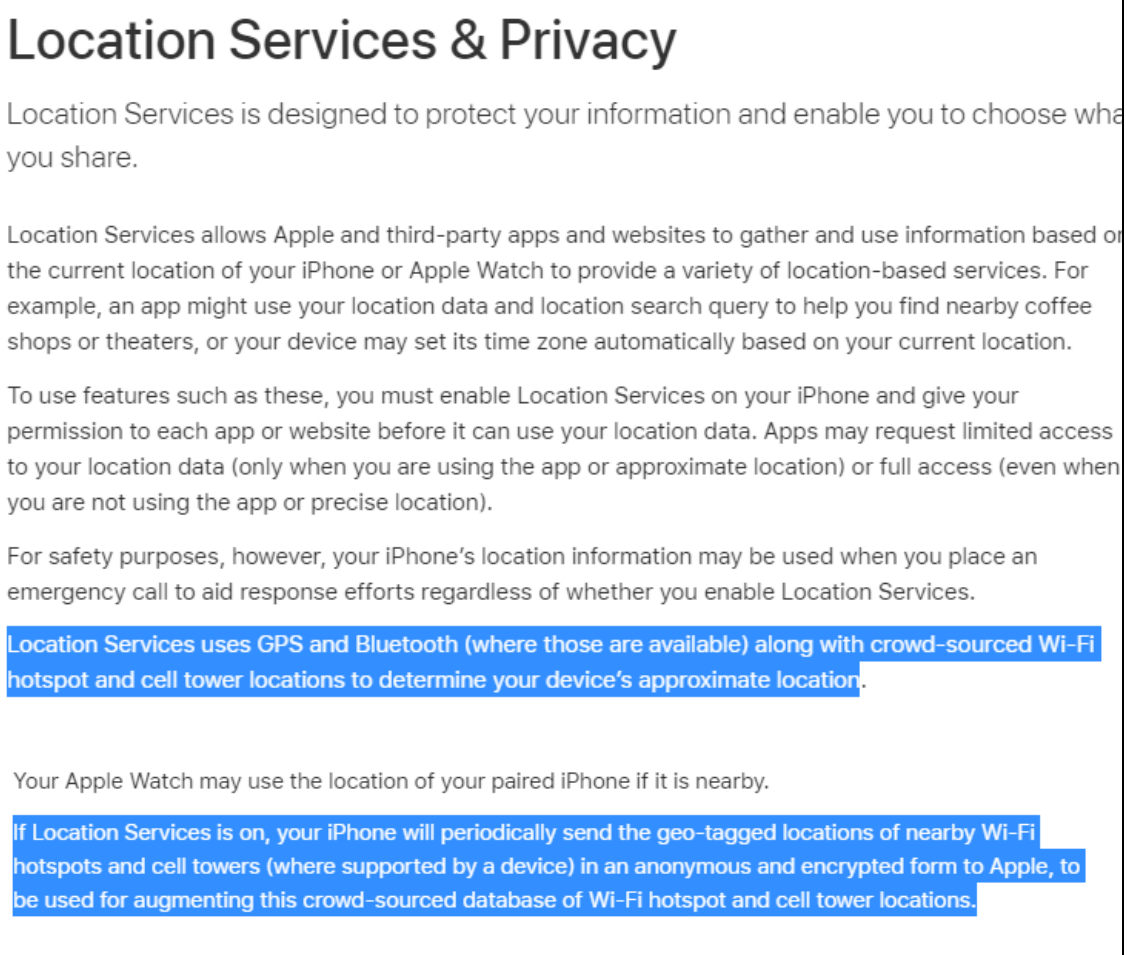
Exemplary Claim	Corresponding Structure in Accused Systems
	 **Attachment 5 (To Matthew Knight Arena from My Location using Apple Maps) at 4.** Set up detours on your journey We've all been there: you're on a journey and somebody needs to go to the toilet. Or you realize you're almost out of petrol. Sudden changes to the plan are fine if you know the area, but can be a nightmare when using satnav.

Exemplary Claim	Corresponding Structure in Accused Systems
	Fortunately, Apple Maps has a built-in feature that allows you to quickly set up detours along your journey, allowing you to quickly and easily find a route to the closest petrol station or services, depending on what you require. When on a journey, tap the bar at the bottom of the Maps screen that displays the ETA, distance and other useful information. Tapping the bar should reveal journey options, including Smart Suggestions to search for points of interest like restaurants and petrol stations. Find your desired detour and tap Go to reroute. Once you've refueled, Apple Maps should automatically resume directions to your original destination. If not, tap the 'Resume route to XX' banner at the top of the display. **The above proves ascertain that the Apple Maps utilizes Apple Servers to update the real-time information, Also, based on the user selection, the numerical value such distance and time updated in real-time.**

Exemplary Claim	Corresponding Structure in Accused Systems
	 https://www.macworld.co.uk/how-to/use-apple-maps-iphone-3658346/
at least one second radio-frequency transceiver and an associated at least one second antenna of the wireless communications network to which the second radio-	Plaintiff contends to this claim limitation that second radio-frequency transceiver can be a base station/ cell tower/base station/ Wi-Fi hotspot. A communication network includes cell sites or towers (examples of different types of access points or towers, which provide radio communication to and from wireless communication devices (specifically one or more of the mobile wireless communications devices identified on Exhibit-B). Thus, the cell sites (base stations) include the radio frequency transceiver coupled with antenna in any communication network. Towers and base stations include radio-frequency transceivers designed and used for radio-frequency communication with at least one antenna. When base-station transceivers and antennas are in communication, they are

Exemplary Claim	Corresponding Structure in Accused Systems
frequency transceiver is coupled; and	coupled. Further, in addition to being so coupled, the transceivers and antenna are coupled to the devices they are attached to. Each said base station base station/ cell tower/base station/ Wi-Fi hotspot includes a radio-frequency transceiver connected to one or more antennas. Location Services & Privacy Location Services is designed to protect your information and enable you to choose wha you share. Location Services allows Apple and third-party apps and websites to gather and use information based o the current location of your iPhone or Apple Watch to provide a variety of location-based services. For example, an app might use your location data and location search query to help you find nearby coffee shops or theaters, or your device may set its time zone automatically based on your current location. To use features such as these, you must enable Location Services on your iPhone and give your permission to each app or website before it can use your location data. Apps may request limited access to your location data (only when you are using the app or approximate location) or full access (even when you are not using the app or precise location). For safety purposes, however, your iPhone's location information may be used when you place an emergency call to aid response efforts regardless of whether you enable Location Services. Location Services uses GPS and Bluetooth (where those are available) along with crowd-sourced Wi-Fi hotspot and cell tower locations to determine your device's approximate location. Your Apple Watch may use the location of your paired iPhone if it is nearby. If Location Services is on, your iPhone will periodically send the geo-tagged locations of nearby Wi-Fi hotspots and cell towers (where supported by a device) in an anonymous and encrypted form to Apple, to be used for augmenting this crowd-sourced database of Wi-Fi hotspot and cell tower locations. https://support.apple.com/en-us/HT207056

Exemplary Claim	Corresponding Structure in Accused Systems
a second processor coupled to the at least one second radio-frequency transceiver programmed to acquire the information indicative of a location of the wireless mobile communications device,	Plaintiff contends that each Apple Server (computer or second processor) described computer corresponds to this claim limitation because each Exhibit-C described computer is coupled to cell tower/base station/ Wi-Fi hotspot of the communication network which provides radio communication to and from wireless communication mobile devices (specifically one or more of the mobile wireless communications devices identified on Exhibit B). The cell tower/base station/ Wi-Fi hotspot include the radio frequency transceiver(s) and the associated antenna(s). The following exemplifies the existence of this limitation in Accused Systems:

Exemplary Claim	Corresponding Structure in Accused Systems
	 https://support.apple.com/en-us/HT207056
wherein the second processor selectively acquires the information indicative of a location of the wireless mobile communications device dependent on the setting of preference flags,	Plaintiff contends that each Apple Server (computer or second processor) described computer corresponds to this claim limitation because if the preference flags are not enabled (i.e., the wireless-mobile-communication device's user has not granted permission), the Apple Server (computer or second processor) computer or second processor do not proceed with determining the device's location or communicating that location. The Apple Server (computer or second processor) computer will not be able to determine and track the location of the Wireless communication device (Exhibit B) such as Apple iPhone 12 Pro Max**,** Apple iPhone 12 Pro, Apple iPhone 12, Apple iPhone 11 Pro Max, Apple iPhone 11 Pro, Apple iPhone 11, Apple iPhone XR, Apple iPhone XS, Apple

Exemplary Claim	Corresponding Structure in Accused Systems
	iPhone X, Apple iPhone SE, if the location flag on the Wireless communication device (Exhibit B) is turned off (that is, locations privacy settings are set to "off"). The following exemplifies the existence of this limitation in Accused Systems: **Turn Location Services and GPS on or off on your iPhone, iPad, or iPod touch** Learn how to turn Location Services and GPS on or off for individual apps. **How to give apps permission to use your location** Some apps might not work unless you turn on Location Services.[1] The first time an app needs to access your Location Services information, you'll get a notification asking for permission. Choose one of these options: • Tap Allow to let the app use Location Services information as needed. • Tap Don't Allow to prevent access.[2] • Tap Ask Next Time to choose Always While Using App, Allow Once, or Don't Allow. iOS and iPadOS devices might use Wi-Fi and Bluetooth to determine your location. GPS and cellular location are available on iPhone and iPad (Wi-Fi + Cellular) models.

Exemplary Claim	Corresponding Structure in Accused Systems
	https://support.apple.com/en-in/HT207092

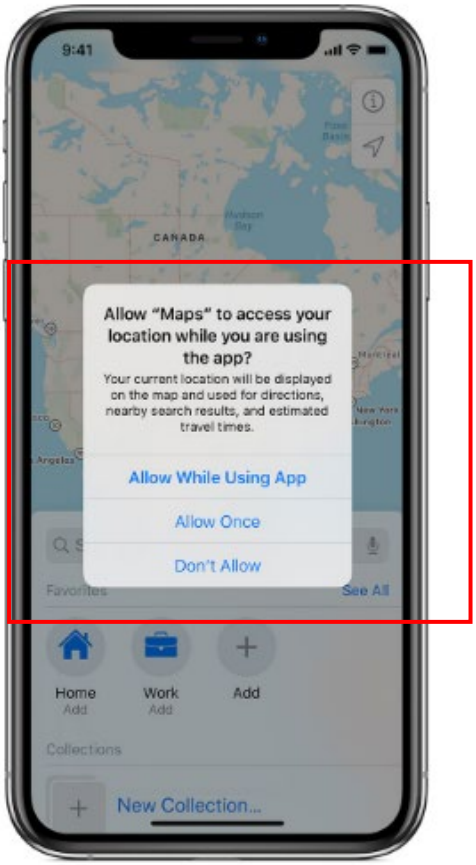
Exemplary Claim	Corresponding Structure in Accused Systems
	

How to turn Location Services on or off for specific apps

1. Go to Settings > Privacy > Location Services.
2. Make sure that Location Services is on.
3. Scroll down to find the app.
4. Tap the app and select an option:
   - Never: Prevents access to Location Services information.
   - Ask Next Time: This allows you to choose Always While Using App, Allow Once, or Don't Allow.
   - While Using the App: Allows access to Location Services only when the app or one of its features is visible on screen. If an app is set to While Using the App, you might see your status bar turn blue with a message that an app is actively using your location.
   - Always: Allows access to your location even when the app is in the background.

From here, apps should provide an explanation of how the app will use your location information. Some apps might

Exemplary Claim	Corresponding Structure in Accused Systems
	https://support.apple.com/en-in/HT207092

Exemplary Claim	Corresponding Structure in Accused Systems
	Give apps permission to use your location The first time an app tries to access your location, it must ask for your permission. You see a prompt explaining which app is asking for permission to use your location as well as the app developer's reason for requesting it.  Second Processor (Apple Server (computer or second processor)) will not be able to acquire the information indicative of the location of the Wireless communication device (Exhibit B) if "Location" flag is turned OFF or permission is denied.
wherein the second processor acquires the information indicative of a location of the wireless mobile communications device if the preference flags are set to a state that permits tracking of the wireless mobile	Plaintiff contends that each Apple Server (computer or second processor) described computer corresponds to this claim limitation because if the preference flags are not enabled (i.e., the wireless-mobile-communication device's user has not granted permission), the Apple Server (computer or second processor) do not proceed with determining the device's location or communicating that location. The Apple Server (computer or second processor) will not be able to determine and track the location of the Wireless communication device (Exhibit B) including but not limited to Apple iPhones, iPads, MacBook, iPods, iPod Touch, iwatch etc.,), Apple iPhone 12 Pro Max, Apple iPhone 12 Pro, Apple iPhone 12, Apple iPhone 11 Pro Max, Apple iPhone 11 Pro, Apple iPhone 11, Apple iPhone XR, Apple iPhone XS, Apple iPhone X,

Exemplary Claim	Corresponding Structure in Accused Systems
communications device,	Apple iPhone SE (refer Exhibit B for complete list), if the location flag on the Wireless communication device (Exhibit B) is turned off (that is, locations privacy settings are set to "off"). The following exemplifies the existence of this limitation in Accused Systems: **Turn Location Services and GPS on or off on your iPhone, iPad, or iPod touch** Learn how to turn Location Services and GPS on or off for individual apps. **How to give apps permission to use your location** Some apps might not work unless you turn on Location Services.[1] The first time an app needs to access your Location Services information, you'll get a notification asking for permission. Choose one of these options: • Tap Allow to let the app use Location Services information as needed. • Tap Don't Allow to prevent access.[2] • Tap Ask Next Time to choose Always While Using App, Allow Once, or Don't Allow. iOS and iPadOS devices might use Wi-Fi and Bluetooth to determine your location. GPS and cellular location are available on iPhone and iPad (Wi-Fi + Cellular) models.

Exemplary Claim	Corresponding Structure in Accused Systems
	https://support.apple.com/en-in/HT207092

Exemplary Claim	Corresponding Structure in Accused Systems
	## How to turn Location Services on or off for specific apps 1. Go to Settings > Privacy > Location Services. 2. Make sure that Location Services is on. 3. Scroll down to find the app. 4. Tap the app and select an option: • Never: Prevents access to Location Services information. • Ask Next Time: This allows you to choose Always While Using App, Allow Once, or Don't Allow. • While Using the App: Allows access to Location Services only when the app or one of its features is visible on screen. If an app is set to While Using the App, you might see your status bar turn blue with a message that an app is actively using your location. • Always: Allows access to your location even when the app is in the background. From here, apps should provide an explanation of how the app will use your location information. Some apps might 

Exemplary Claim	Corresponding Structure in Accused Systems
	https://support.apple.com/en-in/HT207092
and wherein the second processor does not acquire the information indicative of the location of the wireless mobile communications device if the preference flags are set to a state that prohibits tracking of the wireless mobile	Plaintiff contends that each Apple Server (computer or second processor) described computer corresponds to this claim limitation because if the preference flags are not enabled (i.e., the wireless-mobile-communication device's user has not granted permission), the Apple Server (computer or second processor) do not proceed with determining the device's location or communicating that location. The Apple Server (computer or second processor) will not be able to determine and track the location of the Wireless communication device (Exhibit B) including but not limited to Apple iPhones, iPads, MacBook, iPods, iPod Touch, iwatch etc.,), Apple iPhone 12 Pro Max**,** Apple iPhone 12 Pro, Apple iPhone 12, Apple iPhone 11 Pro Max, Apple iPhone 11 Pro, Apple iPhone 11, Apple iPhone XR, Apple iPhone XS, Apple iPhone X,

Exemplary Claim	Corresponding Structure in Accused Systems
communications device.	Apple iPhone SE (refer Exhibit B), if the location flag on the Wireless communication device (Exhibit B) is turned off (that is, locations privacy settings are set to "off"). The following exemplifies the existence of this limitation in Accused Systems: **Turn Location Services and GPS on or off on your iPhone, iPad, or iPod touch** Learn how to turn Location Services and GPS on or off for individual apps. **How to give apps permission to use your location** Some apps might not work unless you turn on Location Services.[1] The first time an app needs to access your Location Services information, you'll get a notification asking for permission. Choose one of these options: • Tap Allow to let the app use Location Services information as needed. • Tap Don't Allow to prevent access.[2] • Tap Ask Next Time to choose Always While Using App, Allow Once, or Don't Allow. iOS and iPadOS devices might use Wi-Fi and Bluetooth to determine your location. GPS and cellular location are available on iPhone and iPad (Wi-Fi + Cellular) models.

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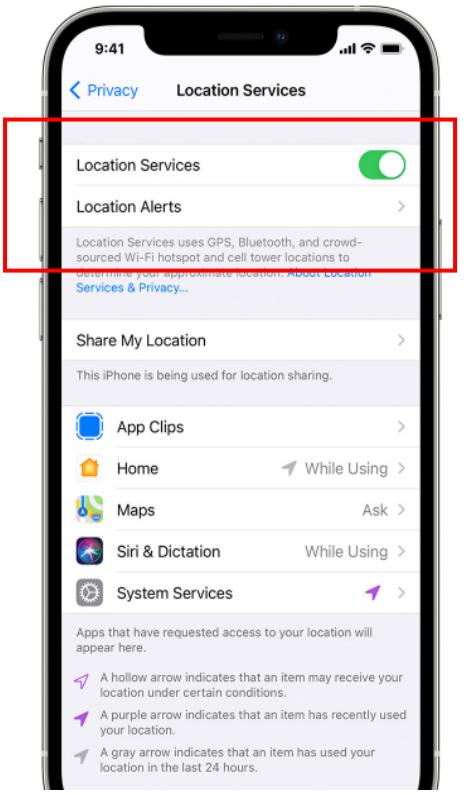
   - Never: Prevents access to Location Services information.
   - Ask Next Time: This allows you to choose Always While Using App, Allow Once, or Don't Allow.
   - While Using the App: Allows access to Location Services only when the app or one of its features is visible on screen. If an app is set to While Using the App, you might see your status bar turn blue with a message that an app is actively using your location.
   - Always: Allows access to your location even when the app is in the background.

From here, apps should provide an explanation of how the app will use your location information. Some apps might



Exemplary Claim	Corresponding Structure in Accused Systems
	https://support.apple.com/en-in/HT207092

10. Defendant makes, uses, offers to sell, and/or sells within or imports into the U.S. wireless networks, wireless-network components, and related services that use identified locations of wireless devices to provide tracking such that Defendant infringes claims 1–24 of the ’147 patent, literally or under the doctrine of equivalents.

11. Defendant put the inventions claimed by the ’147 Patent into service (i.e., used them); but for Defendant’s actions, the claimed-inventions embodiments involving Defendant’s products and services would never have been put into service. Defendant’s acts complained of herein caused those claimed-invention embodiments as a whole to perform, and Defendant obtaining monetary and commercial benefit from it.

12. Defendant has and continues to induce infringement. Defendant has actively encouraged or instructed others (e.g., its customers), and continues to do so, on how to use its products and services (e.g., U.S. wireless networks, wireless-network components that use identified locations of wireless devices to provide tracking of mobile devices) such to cause infringement claims 1–24 of the ’147 patent, literally or under the doctrine of equivalents.

Moreover, Defendant has known and should have known of the '147 patent, by at least by the date of the patent's issuance, or from the issuance of the '284 patent, which followed the date that the patent's underlying application was cited to Defendant by the U.S. Patent and Trademark Office during prosecution of one of Defendant's patent applications, such that Defendant knew and should have known that it was and would be inducing infringement.

13. Defendant has and continues to contributorily infringe. Defendant has actively encouraged or instructed others (e.g., its customers and/or the customers of its related companies), and continues to do so, on how to use its products and services e.g., U.S. wireless networks, wireless-network components that use identified locations of wireless devices to provide tracking of mobile devices) such as to cause infringement of one or more of claims 1– of the '147 patent, literally or under the doctrine of equivalents. Moreover, Defendant has known of the '147 patent and the technology underlying it from at least the date of issuance of the patent or from the issuance of the '284 patent, which followed the date that the patent's underlying application was cited to Defendant by the U.S. Patent and Trademark Office during prosecution of one of Defendant's patent applications, such that Defendant knew and should have known that it was and would be contributorily infringing.

14. Defendant has caused and will continue to cause Traxcell damage by infringing the '147 patent.

IV. PRAYER FOR RELIEF

WHEREFORE, Traxcell respectfully requests that this Court:

i. enter judgment that Defendant has infringed the Patent-in-Suit;

ii. award Traxcell damages in an amount sufficient to compensate it for Defendant's infringement of the Patent-in-Suit, in an amount no less than a reasonable royalty, together with prejudgment and post-judgment interest and costs under 35 U.S.C. § 284;

iii. award Traxcell an accounting for acts of infringement not presented at trial and an award by the Court of additional damage for any such acts of infringement;

iv. declare this case to be "exceptional" under 35 U.S.C. § 285 and award Traxcell its attorneys' fees, expenses, and costs incurred in this action;

v. declare Defendant's infringement to be willful and treble the damages, including attorneys' fees, expenses, and costs incurred in this action and an increase in the damage award pursuant to 35 U.S.C. §284;

vi. a decree addressing future infringement that either (i) awards a permanent injunction enjoining Defendant and its agents, servants, employees, affiliates, divisions, and subsidiaries, and those in association with Defendant, from infringing the claims of the Patents-in-Suit or (ii) award damages for future infringement in lieu of an injunction, in an amount consistent with the fact that for future infringement the Defendant will be adjudicated infringers of a valid patent, and trebles that amount in view of the fact that the future infringement will be willful as a matter of law; and,

vii. award Traxcell such other and further relief as this Court deems just and proper.

JURY DEMAND

Traxcell hereby requests a trial by jury on issues so triable by right.

Respectfully submitted,

Ramey & Schwaller, LLP

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