EXHIBIT G

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U.S. Patent No. 8,711,866 Claim language	Evidence
1. Apparatus for routing audio-video data, comprising a streaming device, the apparatus comprising:	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) can use AirPlay to route a media data stream of audio (e.g., music, podcasts or other audio) and video. On information and belief, various apps that come pre-installed (or can be installed later) on many Apple iPhones and tablets (iPads or iPod Touch) and on Mac are streaming enabled, such as Apple Music, Apple Podcasts, Amazon Music and Spotify. "AirPlay lets you share videos, photos, music, and more from Apple devices to your Apple TV, favorite speakers, and popular smart TVs. And what you share always stays personal and private. So sit back and enjoy everything you love — in more places than ever." Ref. 1, https://www.apple.com/airplay/ "Stream music, podcasts, and other audio to Apple TV, HomePod, or AirPlay 2-compatible speakers or smart TVs. Play audio across multiple speakers throughout your home in perfect sync. Or play something different in every room — all with AirPlay." "Play audio on your iPhone or iPad with iOS 11.4 or later, Apple TV, or a Mac with macOS Catalina or later. Then use AirPlay to stream that audio to your AirPlay-compatible speakers or smart TVs." Ref. 2, https://support.apple.com/en-il/HT202809
(a) an announcer device configured to indicate wirelessly to surrounding media handling devices that said streaming device is available for routing or rerouting; and	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) comprises an announcer device configured to indicate wirelessly to surrounding media handling devices that said streaming device is available for routing or rerouting. For example, an Apple apparatus (e.g., a smartphone, tablet or laptop) running AirPlay announces its availability to receive data to surrounding equipment (e.g., access points ("APs"), routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers).

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	"…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Connecting to the Wi-Fi network, the Apple apparatus (e.g. the wi-fi client) announces itself by sending probe request frames in accordance with the wi-fi protocol. "The client sends probe request frames which contain supported data rates and 802.11 capabilities." Ref. 4, https://netbeez.net/blog/how-wifi-connection-works/ Once connected to the Wi-Fi network, an Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay can route or reroute streaming data, received at the Apple apparatus to compatible equipment in the vicinity, connected to the same network in accordance with Wi-Fi network capabilities. "Internet connectivity occurs through a wireless router. When you access Wi-Fi, you are connecting to a wireless router that allows your Wi-Fi-compatible devices to interface with the Internet." Ref. 5, https://www.cisco.com/c/en/us/products/wireless/what-is-wifi.html
(b) a scout device configured to wirelessly scan surroundings of said streaming device to identify surrounding media handling device as being compatible to given media and determine availability of said compatible media handling devices to receive rerouted audio-video data from said streaming device, said scout device further being	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) comprises a scout device configured to wirelessly scan surroundings of said streaming device to identify surrounding media handling device as being compatible to given media and determine availability of said compatible media handling devices to receive rerouted audio-video data from said streaming device, said scout device further being configured to determine media type requirements of said compatible media handling devices, said media type requirements comprising screen capability and a data rate requirement. For example, an Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay scans the surroundings, while connected to a Wi-Fi network, to identify

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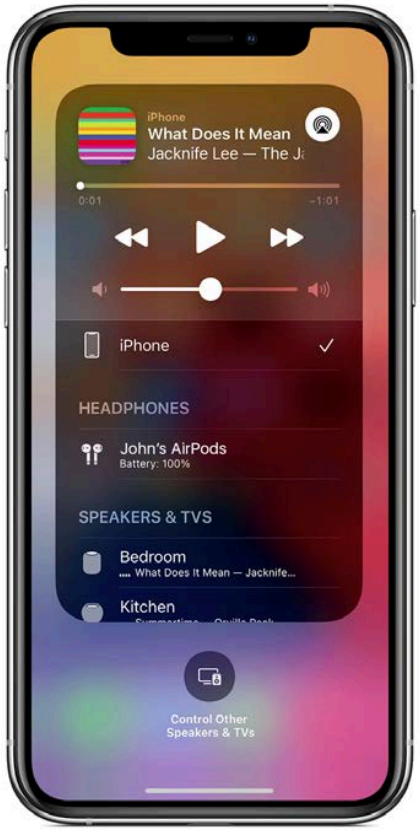
configured to determine media type requirements of said compatible media handling devices, said media type requirements comprising screen capability and a data rate requirement;	compatible Wi-Fi clients (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network and available to receive data. Once connected to the Wi-Fi network, tapping the AirPlay icon on your device will list all compatible equipment, connected to the same network, available to receive the routed data (e.g. streamed music).  Ref. 2, https://support.apple.com/en-us/HT202809

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	The following links provide documentation information on different AirPlay objects providing user interface for the user to select from available devices: "AVRouteDetector: An object that detects available media playback routes." Ref. 11, https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app The below iPhone screen shots ("Apple Music stream Screens") demonstrate the actual streaming of an Apple Music audio-video to a selected compatible media handling device identified by the Apple apparatus – an Apple TV device and HomePod smart speaker.

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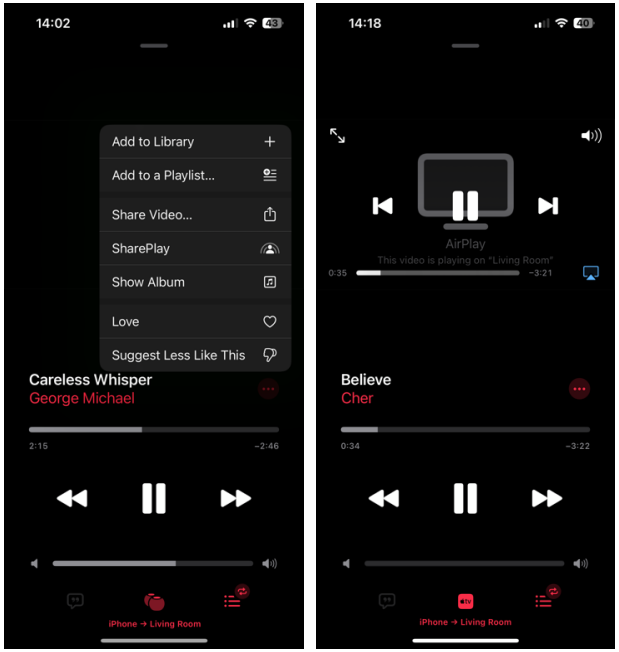
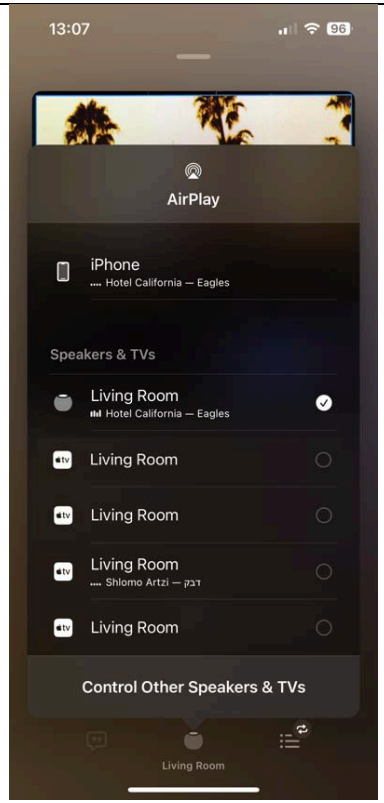
	 The scout device of an Apple apparatus determines AirPlay-compatible equipment, allowing streaming media data to only these devices as can be seen in the below iPhone screen capture.

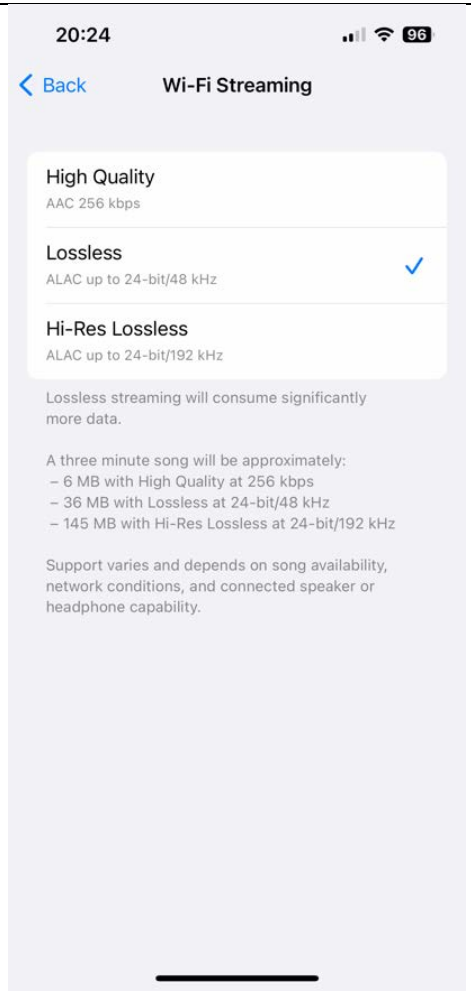


In the above "Apple Music stream Screens", compatible equipment is identifies by its screen capabilities.

The scout device can further determine data rate requirements of compatible equipment.

"…with regards to using AirPlay 2 to send lossless Apple Music streams. Apple Music's Lossless streams supposedly convert from ALAC (Apple's lossless codec) into AAC (Apple's lossy codec) at a pretty lowly 256kbps when transmitted over AirPlay – and therefore *not* losslessly."

Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know


20:24
96
Back
Wi-Fi Streaming
High Quality
AAC 256 kbps
Lossless
ALAC up to 24-bit/48 kHz
Hi-Res Lossless
ALAC up to 24-bit/192 kHz
Lossless streaming will consume significantly more data.
A three minute song will be approximately:
– 6 MB with High Quality at 256 kbps
– 36 MB with Lossless at 24-bit/48 kHz
– 145 MB with Hi-Res Lossless at 24-bit/192 kHz
Support varies and depends on song availability, network conditions, and connected speaker or headphone capability.

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said apparatus being configured to set up a bidirectional wireless communication link between said streaming device and respective media handling devices, said bidirectional wireless link able to carry said rerouted data as streaming audio-video data over either direction of said bidirectional communication link;	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay sets up bidirectional communication links with selected media handling devices (e.g. APs, routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Once connected to the Wi-Fi network, an Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) communicates with media handling devices via the router/access point. According to the Wi-Fi protocol, the communication involves setting up a bidirectional link to and from the streaming device. The Wi-Fi link is able to carry data over either direction. "WiFi transmits data using radio waves. A device's wireless adapter converts data into a radio signal and sends it out via an antenna. This process works both ways: the router also takes data from the Internet, converts it to a radio signal, and sends it back to the device to be decoded." Ref. 7, https://www.optimum.com/articles/internet/what-is-wifi#:~:text=WiFi%20transmits%20data%20using%20radio,the%20device%20to%20be%20decoded.
(c) a media transformer, configured to transform media into a form that accords with respective determined media type requirements, there being a plurality of said media type requirements; d) a user interface for allowing a user to select one of said plurality of media type requirements for transforming at said media transformer; and	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay includes a media transformer. The audio stream routed to the compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) is being transformed to a format compatible with the destination device. "…with regards to using AirPlay 2 to send lossless Apple Music streams. Apple Music's Lossless streams supposedly convert from ALAC (Apple's lossless codec) into AAC (Apple's lossy codec) at a pretty lowly 256kbps when transmitted over AirPlay – and therefore *not* losslessly." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know

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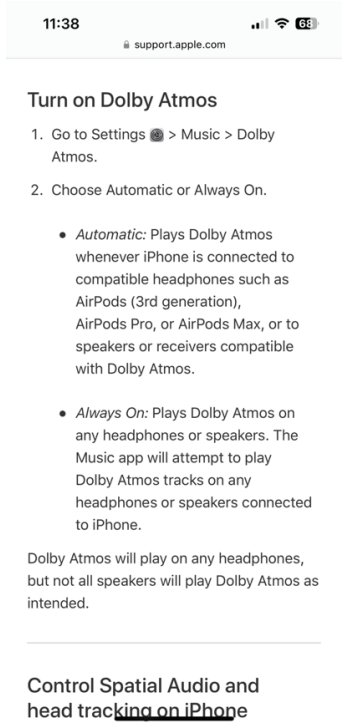
	When an Apple apparatus (iPhone, iPad, iPod Touch, or MacBook) running AirPlay streams the audio to the compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) it is converting the audio format to AAC. As can be seen in the below iPhone screen capture, the iPhone further plays Dolby Atmos format on specific compatible speakers.  The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.

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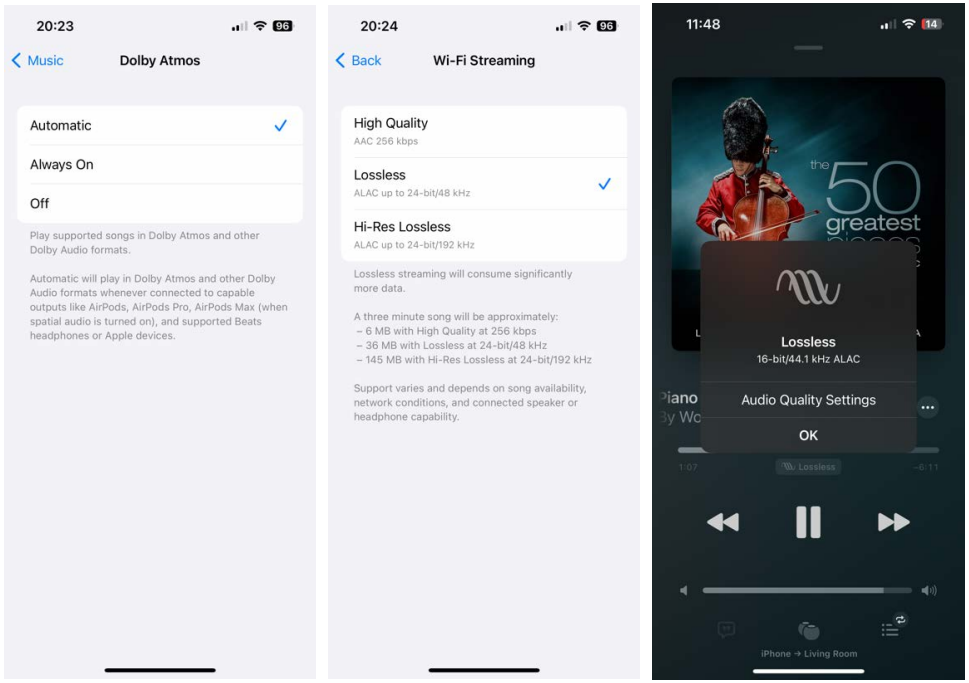
	The following iPhone screen shots show a user interface allowing a user to select media type for transforming the media data. 
(e) a media cloner, associated with said media transformer, for making multiple copies of said media data, thereby to enable said apparatus to redirect said media data to a plurality of locations, at least one of said	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay is capable of streaming an audio stream to one or more compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network.

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multiple copies being transformed at said media transformer.	"Play audio on multiple AirPlay 2-enabled devices: With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen, on an Apple TV in the bedroom, and on an AirPlay 2-enabled smart TV in the den." Ref. 10, https://support.apple.com/en-il/guide/iphone/iph315e0d58d/ios "As long as all the devices are on the same wi-fi network (remember, AirPlay requires a wi-fi connection to work), you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know
2. Apparatus according to claim 1, being a mobile device.	An Apple mobile apparatus running AirPlay can be an iPhone or iPad thus satisfying the claim.

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7. Apparatus according to claim 1, comprising a mobile device, a mobile handset, a computer, or a PDA, wherein said apparatus is configured to receive or generate a call and to redirect said call to a respective media handling device.	An Apple apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a mobile device, a mobile handset, a computer, or a PDA, wherein said apparatus is configured to receive or generate a call and to redirect said call to a respective media handling device. For example, Apple mobile devices (for example an iPhone or iPad running AirPlay involves a method capable of streaming a call audio stream to one or more media handling devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "Use HomePod for phone calls HomePod uses your iOS or iPadOS device to place and receive telephone and FaceTime audio calls. (iPhone is required for telephone calls.)" Ref. 14, https://support.apple.com/en-il/guide/homepod/apdeaa15a6c3/homepod#:~:text=Route%20the%20audio%20of%20an%20existing%20call%20through%20HomePod&text=On%20your%20iOS%20or%20iPadOS,Wi%2DFi%20network%20as%20HomePod.

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	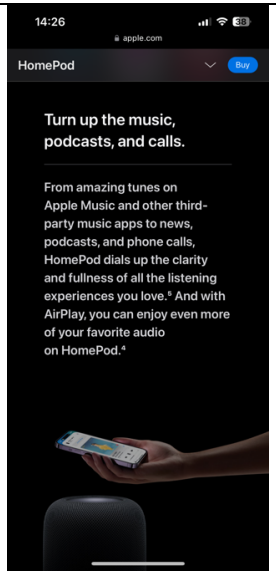 As can be seen in the following iPhone screen capture, an incoming phone call audio is being streamed to a compatible devices (e.g. Apple HomePod smart speaker) connected to the same network.

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9. Apparatus according to claim 1, further comprising a user interface associated with said scout device for allowing a user to select between available compatible media handling devices to reroute data thereto.	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay comprises objects allowing the user to select between one or more available compatible media handling devices. "…you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know The following iPhone screen capture shows the user interface allowing a user to select an available compatible media handling device to stream the audio to.

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	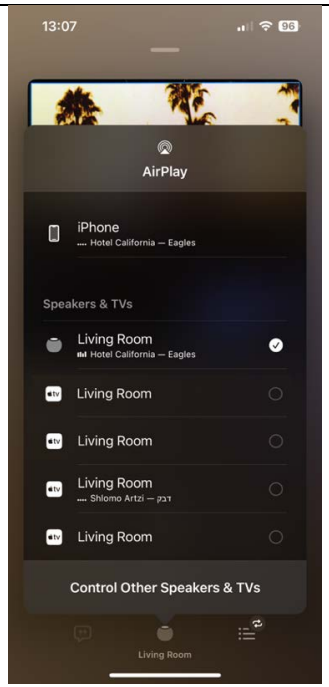
15. Apparatus according to claim 1, further comprising control functionality operable to carry out said rerouting through locally available infrastructure.	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay streams media data to compatible devices connected to the same local network over the local network infrastructure (e.g. Wi-Fi network). "…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/

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16. Apparatus according to claim 1, wherein said audio/video data is one member of the group consisting of an incoming multimedia communication received from a communication network and an incoming multimedia communication received from a cellular communication network.	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay can play streaming data (e.g. Apple Music) that is received at the apparatus while connected to a cellular communication network or a cellular communication network. "…It will use data if the tracks you are playing are not downloaded to your phone, and you are not on Wifi. If the tracks are downloaded to the iPhone, or you are connected to Wifi then it won't use data." Ref. 13, https://discussions.apple.com/thread/7859459#:~:text=It%20will%20use%20data%20if,it%20won%27t%20use%20data. "You can stream music you add to iPhone when you have an internet connection." Ref. 12, https://support.apple.com/en-au/guide/iphone/iph0cff2d191/ios#:~:text=You%20can%20stream%20music%20you,to%20use%20Apple%20Music%20Voice **Choose cellular data options for Music** Go to Settings > Music, turn on Cellular Data, then do any of the following: • Turn Download over Cellular on or off. • Tap Audio Quality, turn on Lossless Audio, then tap Cellular Streaming to choose a setting (None, High Efficiency, High Quality, Lossless, or High-Resolution Lossless). High Quality, Lossless, and High-Resolution Lossless use significantly more cellular data than High Efficiency, which may incur additional charges from your cellular carrier. Songs may also take longer to start playing. Ref. 12, https://support.apple.com/en-au/guide/iphone/iph0cff2d191/ios#:~:text=You%20can%20stream%20music%20you,to%20use%20Apple%20Music%20Voice.

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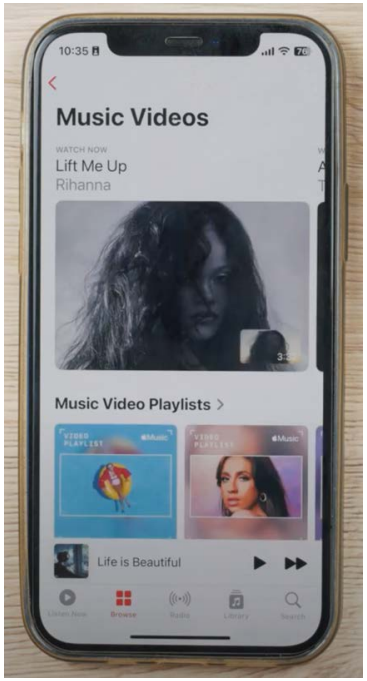
	Using Apple Music you can play and stream received incoming multimedia audio/video data communication received from a communication network or a cellular communication network. 
17. Apparatus according to claim 1, wherein said streaming data in a first link direction is directable via multiple channels to each of a plurality of surrounding devices.	An Apple apparatus (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) running AirPlay is capable of streaming an audio data stream to one or more surrounding devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network via the local wireless network. "Play audio on multiple AirPlay 2-enabled devices: With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen, on an Apple TV in the bedroom, and on an AirPlay 2-enabled smart TV in the den."

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	Ref. 10, https://support.apple.com/en-il/guide/iphone/iph315e0d58d/ios "As long as all the devices are on the same wi-fi network (remember, AirPlay requires a wi-fi connection to work), you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know
19. A method of routing streaming data comprising:	Apple devices (for example an iPhone, iPad, iPod Touch, or MacBook) running AirPlay involve a method of routing media data stream (e.g., music, podcasts or other audio). On information and belief, various apps that come pre-installed (or can be installed later) on many Apple iPhones and tablets (iPads or iPod Touch) and on Mac are streaming enabled, such as Apple Music, Apple Podcasts, Amazon Music and Spotify.

	"AirPlay lets you share videos, photos, music, and more from Apple devices to your Apple TV, favorite speakers, and popular smart TVs. And what you share always stays personal and private. So sit back and enjoy everything you love — in more places than ever." Ref. 1, https://www.apple.com/airplay/ "Stream music, podcasts, and other audio to Apple TV, HomePod, or AirPlay 2-compatible speakers or smart TVs. Play audio across multiple speakers throughout your home in perfect sync. Or play something different in every room — all with AirPlay." "Play audio on your iPhone or iPad with iOS 11.4 or later, Apple TV, or a Mac with macOS Catalina or later. Then use AirPlay to stream that audio to your AirPlay-compatible speakers or smart TVs." Ref. 2, https://support.apple.com/en-il/HT202809
wirelessly scouting a. vicinity of said streaming device with a scanning device, through said scanning device determining availability of surrounding media handling devices in said vicinity, wherein the availability is determined based, at least partly, on media type requirements of said media handling devices, and	Apple devices (for example an iPhone, iPad, or MacBook) running AirPlay involve wirelessly scouting a vicinity of said streaming device with a scanning device, through said scanning device determining availability of surrounding media handling devices in said vicinity, wherein the availability is determined based, at least partly, on media type requirements of said media handling devices. For example, Apple devices (for example an iPhone, iPad, iPod Touch, or MacBook) running AirPlay involve a method to connect to a Wi-Fi network and scan the surroundings to identify compatible media handling devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network and available to receive data.

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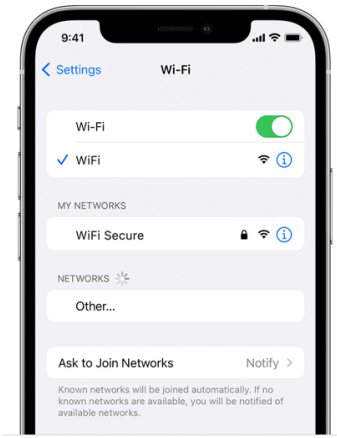
Connect to Wi-Fi on your iPhone, iPad, or iPod touch

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.



Ref. 6, https://support.apple.com/en-il/HT202639

Once connected to the Wi-Fi network, tapping the AirPlay icon on your device will list all compatible handling devices, connected to the same network, available to receive streaming data.

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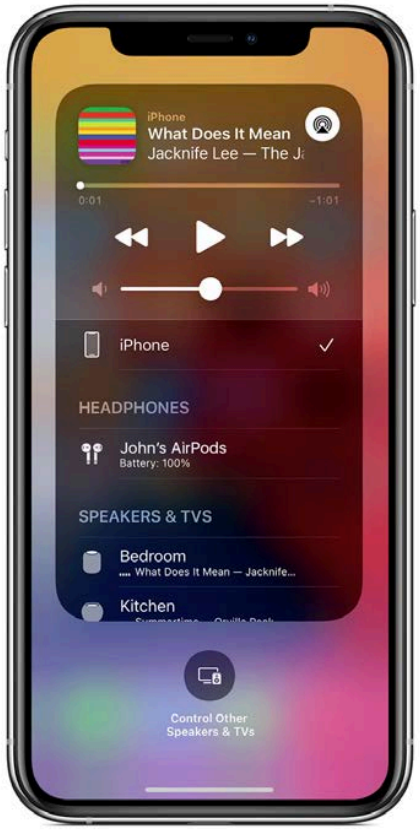

Ref. 2, https://support.apple.com/en-us/HT202809

The Apple devices involve a method to determine AirPlay-compatible equipment and allowing streaming media data to these devices only as can be seen in the below iPhone screen capture.

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	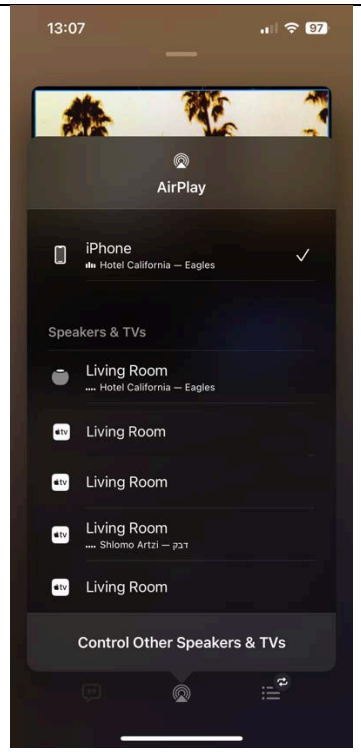
routing or rerouting streaming data between said streaming device and at least one target device selected from said media handling devices in said scanned vicinity found to be available,	Apple devices (for example an iPhone, iPad, or MacBook) running AirPlay involve routing or rerouting streaming data between said streaming device and at least one target device selected from said media handling devices in said scanned vicinity found to be available. For example, Apple devices (for example an iPhone, iPad, iPod Touch, or MacBook) running AirPlay involve a method to stream audio to one or more selected compatible handling devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) available and connected to the same network.

	"AirPlay lets you share videos, photos, music, and more from Apple devices to your Apple TV, favorite speakers, and popular smart TVs. And what you share always stays personal and private. So sit back and enjoy everything you love — in more places than ever." Ref. 1, https://www.apple.com/airplay/ "Stream music, podcasts, and other audio to Apple TV, HomePod, or AirPlay 2-compatible speakers or smart TVs." "Play audio on your iPhone or iPad with iOS 11.4 or later, Apple TV, or a Mac with macOS Catalina or later. Then use AirPlay to stream that audio to your AirPlay-compatible speakers or smart TVs." Ref. 2, https://support.apple.com/en-il/HT202809

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	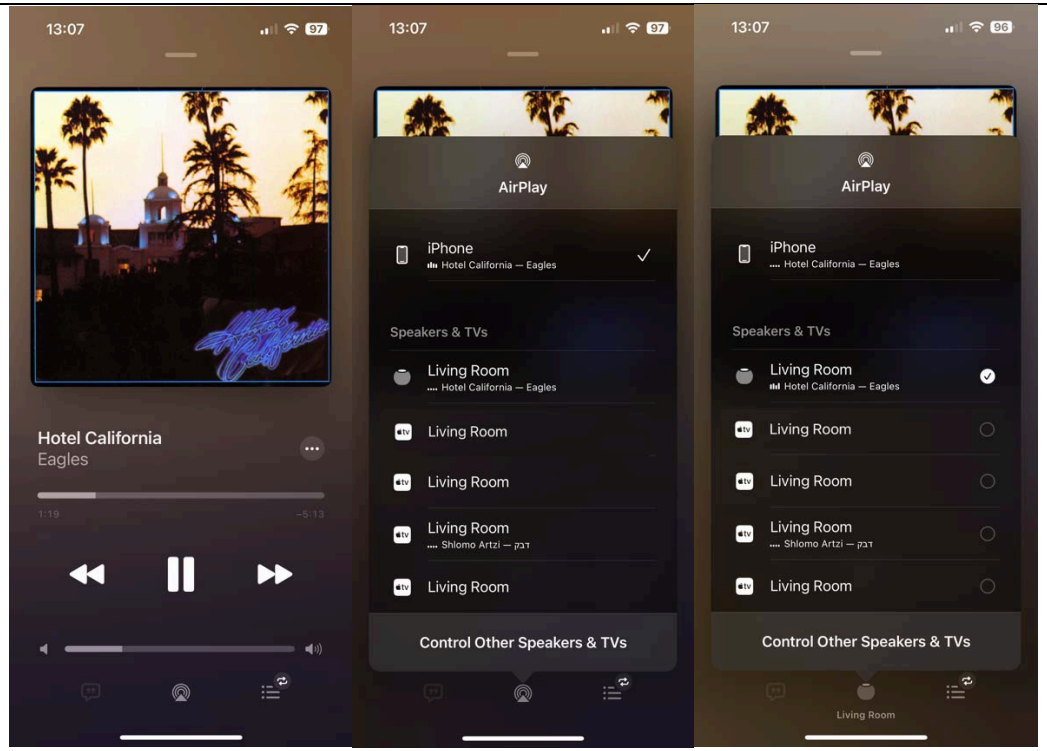
said routing or rerouting comprising setting up a bidirectional wireless data link between said target device and said streaming device, said bidirectional wireless link being capable of carrying a multimedia streaming data in either direction of said bidirectional data link;	In Apple devices (for example an iPhone, iPad, or MacBook) running AirPlay, the above-described routing or rerouting comprises setting up a bidirectional wireless data link between said target device and said streaming device, said bidirectional wireless link being capable of carrying a multimedia streaming data in either direction of said bidirectional data link. Apple streaming devices (for example an iPhone, iPad, iPod Touch, or MacBook) running AirPlay involve a method to set up bidirectional communication links with selected target media handling devices (e.g. APs, routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers).

	"…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Once connected to the Wi-Fi network, an Apple streaming device (e.g., a smartphone, tablet or laptop – iPhone, iPad, iPod Touch, or MacBook) involves a method to communicates with surrounding target handling devices via the router/access point. According to the Wi-Fi protocol, the communication involves setting up a bidirectional link between the streaming device and target media handling device. "WiFi transmits data using radio waves. A device's wireless adapter converts data into a radio signal and sends it out via an antenna. This process works both ways: the router also takes data from the Internet, converts it to a radio signal, and sends it back to the device to be decoded." Ref. 7, https://www.optimum.com/articles/internet/what-is-wifi#:~:text=WiFi%20transmits%20data%20using%20radio,the%20device%20to%20be%20decoded. "WiFi is a half duplex form of data transmission, which is to say, data packets are sent back and forth in sequence." Ref. 8, https://blutecsys.com/is-full-duplex-fixed-wireless-superior-to-wifi/#:~:text=WiFi%20is%20a%20half%20duplex,both%20sent%20and%20received%20simultaneously
transforming media into forms respectively that accord with said determined media type requirements,	Apple devices (for example an iPhone, iPad, or MacBook) running AirPlay involve transforming media into forms respectively that accord with said determined media type requirements. For example, Apple devices (for example an iPhone, iPad, iPod Touch, or MacBook) running AirPlay involve a method to transform media. The audio stream routed to the compatible handling devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) is being transformed to a compatible format.

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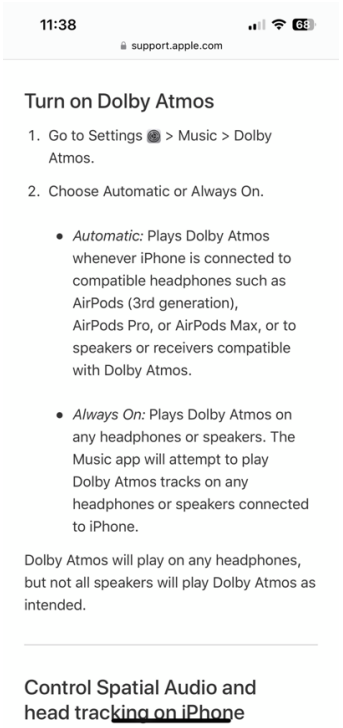
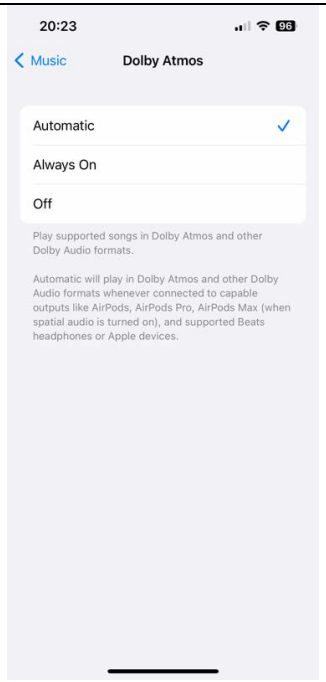
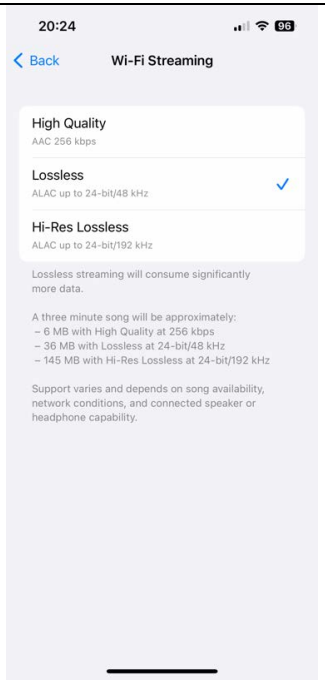
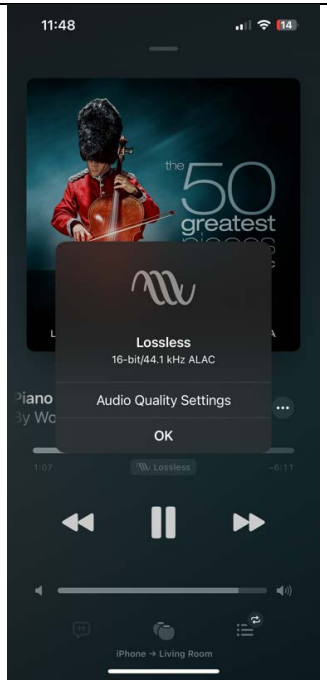
	"…with regards to using AirPlay 2 to send lossless Apple Music streams. Apple Music's Lossless streams supposedly convert from ALAC (Apple's lossless codec) into AAC (Apple's lossy codec) at a pretty lowly 256kbps when transmitted over AirPlay – and therefore *not* losslessly." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know When an Apple apparatus (iPhone, iPad, iPod Touch, or MacBook) running AirPlay stream the audio to the compatible handling devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) it is converting the audio format to AAC. As can be seen in the below iPhone screen capture, the iPhone further plays Dolby Atmos format on specific compatible handling devices (e.g. speakers).  11:38 support.apple.com **Turn on Dolby Atmos** 1. Go to Settings > Music > Dolby Atmos. 2. Choose Automatic or Always On. • *Automatic:* Plays Dolby Atmos whenever iPhone is connected to compatible headphones such as AirPods (3rd generation), AirPods Pro, or AirPods Max, or to speakers or receivers compatible with Dolby Atmos. • *Always On:* Plays Dolby Atmos on any headphones or speakers. The Music app will attempt to play Dolby Atmos tracks on any headphones or speakers connected to iPhone. Dolby Atmos will play on any headphones, but not all speakers will play Dolby Atmos as intended. **Control Spatial Audio and head tracking on iPhone**

	The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.
allowing a user to select, via a user interface, or selecting based on a profile, one of said determined media type requirements for transforming; and	Apple devices (for example an iPhone, iPad, or MacBook) running AirPlay allow a user to select, via a user interface, or selecting based on a profile, one of said determined media type requirements for transforming. For example, Apple devices (for example an iPhone, iPad, iPod Touch, or MacBook) running AirPlay involve a method to define the streaming media type when streamed to the compatible handling devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). The following iPhone screen shots show a user interface allowing a user to define media type for transforming the media data.

	   The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.
making multiple copies of incoming streaming data to redirect a single incoming communication to a plurality of locations, at least some of said multiple copies being transformed.	Apple devices (for example an iPhone, iPad, or MacBook) running AirPlay involve making multiple copies of incoming streaming data to redirect a single incoming communication to a plurality of locations, at least some of said multiple copies being transformed.

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	For example, Apple streaming devices (for example an iPhone, iPad, iPod Touch, or MacBook) running AirPlay involve a method capable of redirecting a received audio stream to one or more compatible target devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "Play audio on multiple AirPlay 2-enabled devices: With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen, on an Apple TV in the bedroom, and on an AirPlay 2-enabled smart TV in the den." Ref. 10, https://support.apple.com/en-il/guide/iphone/iph315e0d58d/ios "As long as all the devices are on the same wi-fi network (remember, AirPlay requires a wi-fi connection to work), you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know

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20. A method of wirelessly routing streaming data comprising:	Apple mobile devices (for example, an iPhone or iPad) running AirPlay involve a method of wirelessly routing streaming data (e.g., music, podcasts or other audio). On information and belief, various apps that come pre-installed (or can be installed later) on many Apple iPhones and tablets (iPads or iPod Touch) are streaming enabled, such as Apple Music, Apple Podcasts, Amazon Music and Spotify. "AirPlay lets you share videos, photos, music, and more from Apple devices to your Apple TV, favorite speakers, and popular smart TVs. And what you share always stays personal and private. So sit back and enjoy everything you love — in more places than ever." Ref. 1, https://www.apple.com/airplay/ "Stream music, podcasts, and other audio to Apple TV, HomePod, or AirPlay 2-compatible speakers or smart TVs. Play audio across multiple speakers throughout your home in perfect sync. Or play something different in every room — all with AirPlay."

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	"Play audio on your iPhone or iPad with iOS 11.4 or later, Apple TV, or a Mac with macOS Catalina or later. Then use AirPlay to stream that audio to your AirPlay-compatible speakers or smart TVs." Ref. 2, https://support.apple.com/en-il/HT202809
scouting a vicinity of a first mobile device with a scanning device, said scanning device being associated with said first mobile device, through said scanning device determining compatibility and availability of media handling devices in the vicinity of, said first mobile device for receiving of bidirectional streaming data directed from said mobile device via a bidirectional wireless link set up between said mobile device and respective media handling devices, wherein the availability is determined based, at least partly, on media type requirements of said respective media handling devices and media type of said streaming data,	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay scouts a vicinity of a first mobile device with a scanning device, said scanning device being associated with said first mobile device, through said scanning device determining compatibility and availability of media handling devices in the vicinity of, said first mobile device for receiving of bidirectional streaming data directed from said mobile device via a bidirectional wireless link set up between said mobile device and respective media handling devices, wherein the availability is determined based, at least partly, on media type requirements of said respective media handling devices and media type of said streaming data. For example, Apple mobile devices (for example, an iPhone or iPad) running AirPlay involve a method to connect to a Wi-Fi network and scan the surroundings to identify compatible and available media handling devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network and available to receive streaming data.

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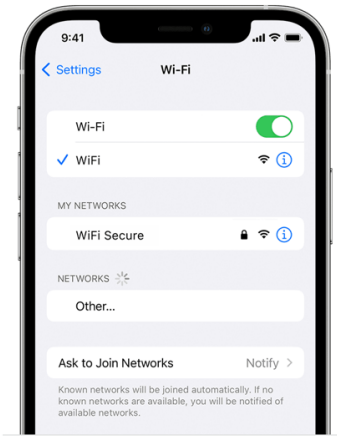
Connect to Wi-Fi on your iPhone, iPad, or iPod touch

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.



Ref. 6, https://support.apple.com/en-il/HT202639

Once connected to the Wi-Fi network, tapping the AirPlay icon on your device will list all compatible handling devices, connected to the same network, available to receive streaming data over the Wi-Fi link. The Wi-Fi link is, per the Wi-Fi protocol, a bi-directional link.

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Ref. 2, https://support.apple.com/en-us/HT202809

The Apple mobile devices involve a method to determine AirPlay-compatible equipment and allow streaming media data to these devices only as can be seen in the below iPhone screen capture.

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	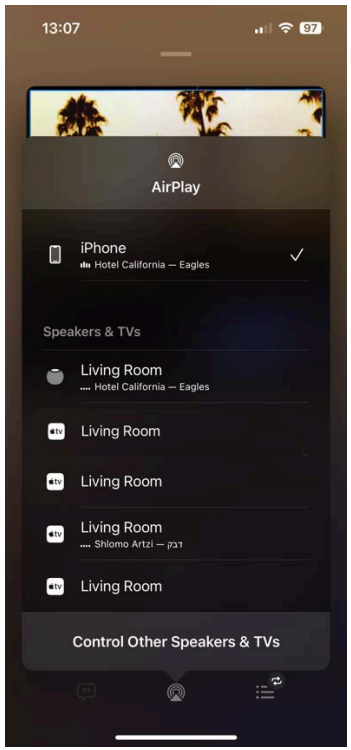
the method further comprising streaming data in either direction over said bidirectional wireless link; and	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay streams data in either direction over said bidirectional wireless link. For example, Apple mobile streaming devices (for example an iPhone or iPad) running AirPlay involve a method capable of streaming data to one or more compatible target devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) as well as receiving data from the one or more compatible devices.

	Once connected to the Wi-Fi network, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) communicates with media handling devices via the router/access point. According to the Wi-Fi protocol, the communication involves setting up a bidirectional link to and from the streaming device. The Wi-Fi link is able to carry streaming data over either direction. "WiFi transmits data using radio waves. A device's wireless adapter converts data into a radio signal and sends it out via an antenna. This process works both ways: the router also takes data from the Internet, converts it to a radio signal, and sends it back to the device to be decoded." Ref. 7, https://www.optimum.com/articles/internet/what-is-wifi#:~:text=WiFi%20transmits%20data%20using%20radio,the%20device%20to%20be%20decoded. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. 15, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter. As the packets are continuously sent to the surrounding media handling device, the ACK is continuously streamed to the Apple mobile apparatus. The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.
making multiple copies of said media data, thereby to redirect said media data to a plurality of locations, at least one of said multiple copies being transformed in accordance with a	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay makes multiple copies of said media data, thereby to redirect said media data to a plurality of locations, at least one of said multiple copies being transformed in accordance with a respective determined compatibility.

respective determined compatibility.	For example, Apple mobile streaming devices (for example an iPhone or iPad) running AirPlay involve a method capable of redirecting a received audio media stream data to one or more compatible target devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "Play audio on multiple AirPlay 2-enabled devices: With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen, on an Apple TV in the bedroom, and on an AirPlay 2-enabled smart TV in the den." Ref. 10, https://support.apple.com/en-il/guide/iphone/iph315e0d58d/ios "As long as all the devices are on the same wi-fi network (remember, AirPlay requires a wi-fi connection to work), you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know

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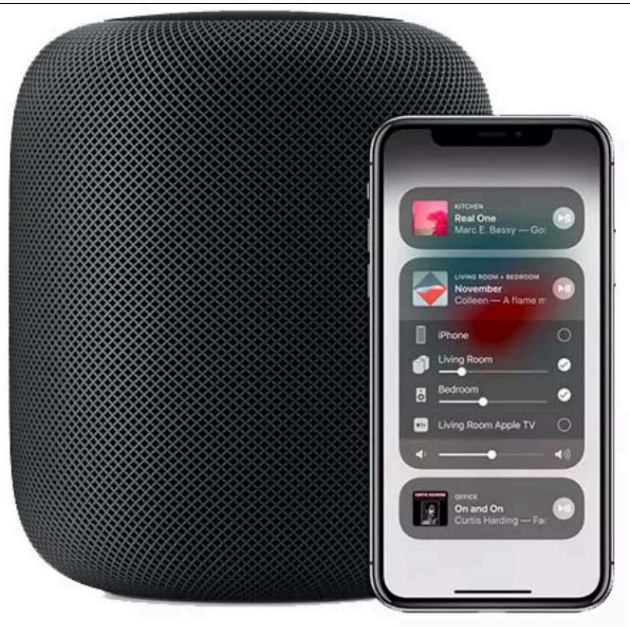
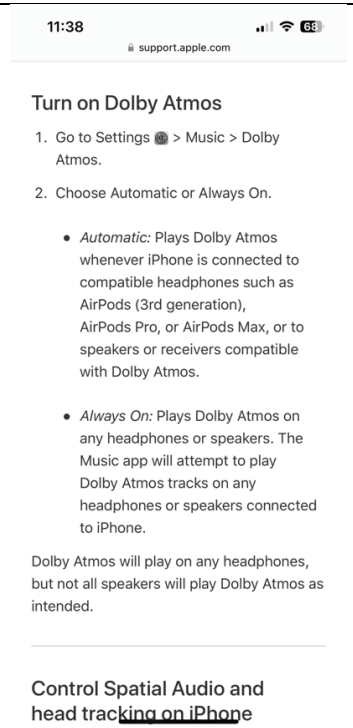


"…with regards to using AirPlay 2 to send lossless Apple Music streams. Apple Music's Lossless streams supposedly convert from ALAC (Apple's lossless codec) into AAC (Apple's lossy codec) at a pretty lowly 256kbps when transmitted over AirPlay – and therefore *not* losslessly."

Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know

When an Apple mobile apparatus (iPhone or iPad) running AirPlay streams the audio to the compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) it is converting the audio format to AAC. As can be seen in the below iPhone screen capture, the iPhone further plays Dolby Atmos format on specific compatible speakers.



The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.

21. Apparatus for routing and rerouting streaming data, the apparatus being mobile and comprising: a streaming device comprising:	Apple mobile devices (for example, an iPhone or iPad) running AirPlay are streaming devices that route and reroute streaming data. For example, An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay can route and reroute streaming data. On information and belief, various apps that come pre-installed (or can be installed later) on many Apple iPhones and tablets (iPads or iPod Touch) are streaming enabled, such as Apple Music, Apple Podcasts, Amazon Music and Spotify. "AirPlay lets you share videos, photos, music, and more from Apple devices to your Apple TV, favorite speakers, and popular smart TVs. And what you share always stays personal and private. So sit back and enjoy everything you love — in more places than ever." Ref. 1, https://www.apple.com/airplay/ "Stream music, podcasts, and other audio to Apple TV, HomePod, or AirPlay 2-compatible speakers or smart TVs. Play audio across multiple speakers throughout your home in perfect sync. Or play something different in every room — all with AirPlay." "Play audio on your iPhone or iPad with iOS 11.4 or later, Apple TV, or a Mac with macOS Catalina or later. Then use AirPlay to stream that audio to your AirPlay-compatible speakers or smart TVs." Ref. 2, https://support.apple.com/en-il/HT202809 The streaming data can include the continuous data packets as well as the continuous stream of acknowledgments (ACK) messages sent between the WiFi clients. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. 15, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter.
An announcer device configured to indicate to surrounding media	Apple mobile devices (for example, an iPhone or iPad) running AirPlay comprise an announcer device configured to indicate to surrounding media handling devices that said apparatus is available to receive

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handling devices that said apparatus is available to receive streaming data, thereby to enable receipt of routed and rerouted streaming data from said surrounding media handling devices;	streaming data, thereby to enable receipt of routed and rerouted streaming data from said surrounding media handling devices. For example, an Apple mobile apparatus (e.g., a smartphone or tablet) running AirPlay announces its availability to receive streaming data to surrounding equipment (e.g. Aps, routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Connecting to the Wi-Fi network, the Apple mobile apparatus (e.g. the wi-fi client) announces itself by sending probe request frames in accordance with the wi-fi protocol. "The client sends probe request frames which contain supported data rates and 802.11 capabilities." Ref. 4, https://netbeez.net/blog/how-wifi-connection-works/ Streaming data can further include the continuous stream of acknowledgments (ACK) messages received from the surrounding media handling device to the Apple mobile apparatus. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. 15, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter. As the packets are continuously sent to the surrounding media handling device, the ACK is continuously streamed to the Apple mobile apparatus. "Internet connectivity occurs through a wireless router. When you access Wi-Fi, you are connecting to a wireless router that allows your Wi-Fi-compatible devices to interface with the Internet."

	Ref. 5, https://www.cisco.com/c/en/us/products/wireless/what-is-wifi.html
a scout device configured to scan surroundings of said apparatus to identify surrounding media handling devices and determine compatibility requirements availability of said identified media handling devices in said surroundings, thereby to route and reroute streaming data from said streaming device to a selected one of said media handling devices,	Apple mobile devices (for example, an iPhone or iPad) running AirPlay comprise a scout device configured to scan surroundings of said apparatus to identify surrounding media handling devices and determine compatibility requirements availability of said identified media handling devices in said surroundings, thereby to route and reroute streaming data from said streaming device to a selected one of said media handling devices. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay scans the surroundings, while connected to a Wi-Fi network, to identify compatible Wi-Fi clients (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network and available to receive streaming data. Once connected to the Wi-Fi network, tapping the AirPlay icon on your device will list all compatible equipment, connected to the same network, available to receive the routed data (e.g. streamed music).

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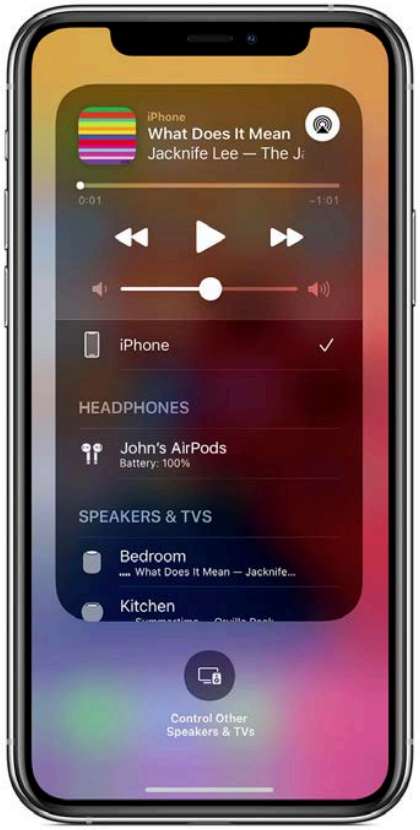
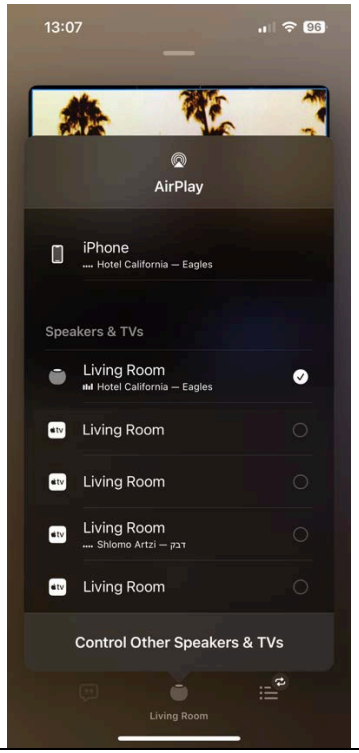


Ref. 2, https://support.apple.com/en-us/HT202809

The following links provide documentation information on different AirPlay objects providing user interface for the user to select from available devices:

	"AVRouteDetector: An object that detects available media playback routes." Ref. 11, https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app The Apple mobile apparatus scout device determines AirPlay compatible equipment allowing streaming media data to these devices only as can be seen in the below iPhone screen capture. 
the apparatus being configured to set up a bidirectional wireless communication link between	Apple mobile devices (for example, an iPhone or iPad) running AirPlay are configured to set up a bidirectional wireless communication link between respective ones of said media handling devices and said streaming device, said bidirectional link being capable of carrying said streaming data in either direction of

respective ones of said media handling devices and said streaming device, said bidirectional link being capable of carrying said streaming data in either direction of said bidirectional link, and wherein said scout device is operable to determine media type requirements of aid respective media handling devices; and	said bidirectional link, and wherein said scout device is operable to determine media type requirements of aid respective media handling devices. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay sets up bidirectional communication links with selected media handling devices (e.g. Aps, routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Once connected to the Wi-Fi network, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) communicates with media handling devices via the router/access point. According to the Wi-Fi protocol, the communication involves setting up a bidirectional link to and from the streaming device. The Wi-Fi link is able to carry streaming data over either direction. "WiFi transmits data using radio waves. A device's wireless adapter converts data into a radio signal and sends it out via an antenna. This process works both ways: the router also takes data from the Internet, converts it to a radio signal, and sends it back to the device to be decoded." Ref. 7, https://www.optimum.com/articles/internet/what-is-wifi#:~:text=WiFi%20transmits%20data%20using%20radio,the%20device%20to%20be%20decoded. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. 15, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter. As the packets are continuously sent to the surrounding media handling device, the ACK is continuously streamed to the Apple mobile apparatus.

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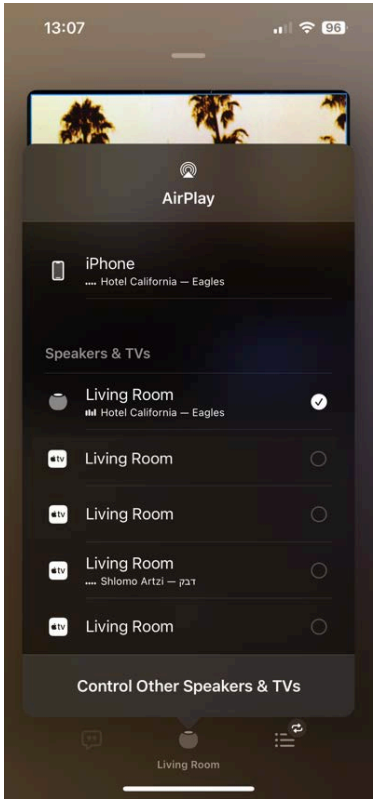
	The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app. The Apple mobile apparatus determines AirPlay-compatible equipment, allowing streaming media data to only these devices as can be seen in the below iPhone screen capture.  In the above “Apple Music stream Screens”, compatible equipment is identifies by its screen capabilities.

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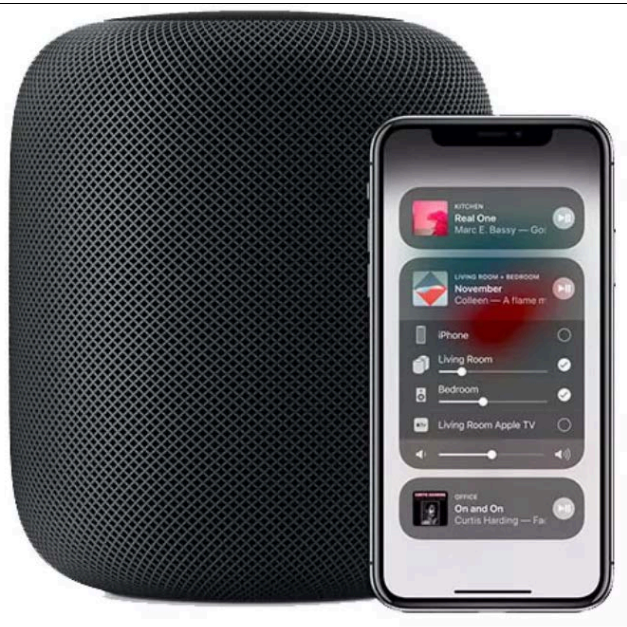
A media eloper, for making multiple copies of said media data, thereby to enable said apparatus to redirect said media data to a plurality of locations.	Apple mobile devices (for example, an iPhone or iPad) running AirPlay comprises a media cloner, for making multiple copies of said media data, thereby to enable said apparatus to redirect said media data to a plurality of locations. An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay is capable of streaming a media data (i.e. audio stream) to one or more compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network. "Play audio on multiple AirPlay 2-enabled devices: With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen, on an Apple TV in the bedroom, and on an AirPlay 2-enabled smart TV in the den." Ref. 10, https://support.apple.com/en-il/guide/iphone/iph315e0d58d/ios "As long as all the devices are on the same wi-fi network (remember, AirPlay requires a wi-fi connection to work), you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know

	Real One November iPhone Living Room Bedroom Living Room Apple TV On and On

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22. Apparatus for routing and rerouting streaming data, the apparatus being mobile and comprising: a streaming device comprising:	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay can route and reroute streaming data. On information and belief, various apps that come pre-installed (or can be installed later) on many Apple iPhones and tablets (iPads or iPod Touch) are streaming enabled, such as Apple Music, Apple Podcasts, Amazon Music and Spotify. "AirPlay lets you share videos, photos, music, and more from Apple devices to your Apple TV, favorite speakers, and popular smart TVs. And what you share always stays personal and private. So sit back and enjoy everything you love — in more places than ever." Ref. 1, https://www.apple.com/airplay/ "Stream music, podcasts, and other audio to Apple TV, HomePod, or AirPlay 2-compatible speakers or smart TVs. Play audio across multiple speakers throughout your home in perfect sync. Or play something different in every room — all with AirPlay." "Play audio on your iPhone or iPad with iOS 11.4 or later, Apple TV, or a Mac with macOS Catalina or later. Then use AirPlay to stream that audio to your AirPlay-compatible speakers or smart TVs." Ref. 2, https://support.apple.com/en-il/HT202809 The streaming data can include the continuous data packets as well as the continuous stream of acknowledgments (ACK) messages sent between the WiFi clients. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. 15, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter.
an announcer device configured to indicate to surrounding media handling devices that said streaming device is available to receive streaming data, thereby	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises an announcer device configured to indicate to surrounding media handling devices that said streaming device is available to receive streaming data, thereby to enable receipt of rerouted data from said surrounding media handling devices.

to enable receipt of rerouted data from said surrounding media handling devices, and	For example, an Apple mobile apparatus (e.g., a smartphone or tablet) running AirPlay announces its availability to receive streaming data to surrounding equipment (e.g. APs, routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Connecting to the Wi-Fi network, the Apple mobile apparatus (e.g. the wi-fi client) announces itself by sending probe request frames in accordance with the wi-fi protocol. "The client sends probe request frames which contain supported data rates and 802.11 capabilities." Ref. 4, https://netbeez.net/blog/how-wifi-connection-works/ Streaming data can further include the continuous stream of acknowledgments (ACK) messages received from the surrounding media handling device to the Apple mobile apparatus. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. 15, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter. As the packets are continuously sent to the surrounding media handling device, the ACK is continuously streamed to the Apple mobile apparatus. "Internet connectivity occurs through a wireless router. When you access Wi-Fi, you are connecting to a wireless router that allows your Wi-Fi-compatible devices to interface with the Internet." Ref. 5, https://www.cisco.com/c/en/us/products/wireless/what-is-wifi.html

a scout device configured to scan surroundings of said streaming device to identify surrounding media handling devices as being compatible to handle given media, and determine availability of said identified compatible media handling devices, thereby to reroute streaming data between said streaming device and a selected one of said surrounding media handling devices, said scout device further being configured to determine media type requirements of said compatible media handling devices,	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a scout device configured to scan surroundings of said streaming device to identify surrounding media handling devices as being compatible to handle given media, and determine availability of said identified compatible media handling devices, thereby to reroute streaming data between said streaming device and a selected one of said surrounding media handling devices, said scout device further being configured to determine media type requirements of said compatible media handling devices. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay scans the surroundings, while connected to a Wi-Fi network, to identify compatible Wi-Fi clients (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network and available to receive data. Once connected to the Wi-Fi network, tapping the AirPlay icon on your device will list all compatible equipment, connected to the same network, available to receive the routed data (e.g. streamed music).

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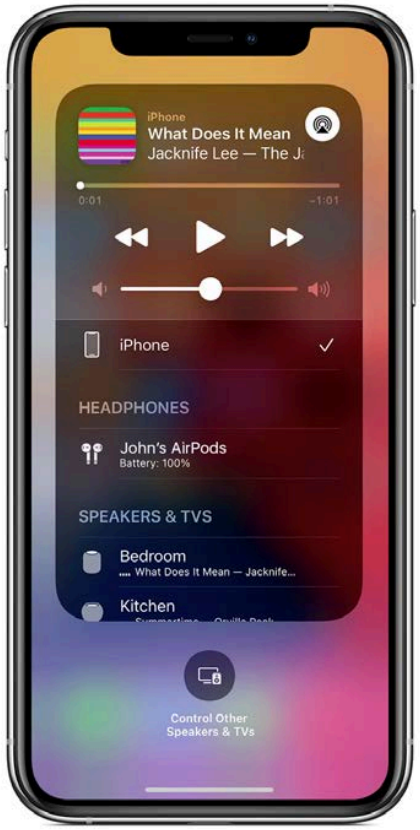
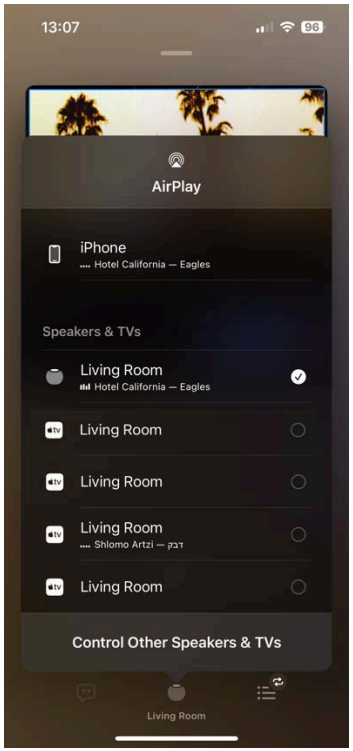


Ref. 2, https://support.apple.com/en-us/HT202809

The following links provide documentation information on different AirPlay objects providing user interface for the user to select from available devices:

	"AVRouteDetector: An object that detects available media playback routes." Ref. 11, https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app The Apple mobile apparatus scout device determine AirPlay compatible media handling devices allowing streaming media data to these devices only as can be seen in the below iPhone screen capture. 
said apparatus configured to set up a bidirectional wireless	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay is configured to set up a bidirectional wireless communication link between said streaming device and a respective one of

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communication link between said streaming device and a respective one of said media handling devices, said bidirectional link carrying streaming data over either direction as required of said bidirectional link;	said media handling devices, said bidirectional link carrying streaming data over either direction as required of said bidirectional link. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay sets up bidirectional communication links with selected media handling devices (e.g. APs, routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers). "…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network." Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Once connected to the Wi-Fi network, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) communicates with media handling devices via the router/access point. According to the Wi-Fi protocol, the communication involves setting up a bidirectional link to and from the streaming device. The Wi-Fi link is able to carry streaming data over either direction in case required. "WiFi transmits data using radio waves. A device's wireless adapter converts data into a radio signal and sends it out via an antenna. This process works both ways: the router also takes data from the Internet, converts it to a radio signal, and sends it back to the device to be decoded." Ref. 7, https://www.optimum.com/articles/internet/what-is-wifi#:~:text=WiFi%20transmits%20data%20using%20radio,the%20device%20to%20be%20decoded. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. 15, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter. As the packets are continuously sent to the surrounding media handling device, the ACK is continuously streamed to the Apple mobile apparatus.

	The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.
a media transformer, configured to transform media into forms that accord with respective determined media type requirements, wherein there are a plurality of said types; a user interface for allowing a user to select one of said media type requirements for transforming at said media transformer, and	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a media transformer, configured to transform media into forms that accord with respective determined media type requirements, wherein there are a plurality of said types, as well as a user interface for allowing a user to select one of said media type requirements for transforming at said media transformer. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay includes a media transformer. The audio stream routed to the compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) is being transformed to a format compatible with the destination device. "…with regards to using AirPlay 2 to send lossless Apple Music streams. Apple Music's Lossless streams supposedly convert from ALAC (Apple's lossless codec) into AAC (Apple's lossy codec) at a pretty lowly 256kbps when transmitted over AirPlay – and therefore *not* losslessly." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know When an Apple mobile apparatus (iPhone or iPad) running AirPlay streams the audio to the compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) it is converting the audio format to AAC. As can be seen in the below iPhone screen capture, the iPhone further plays Dolby Atmos format on specific compatible speakers.

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Turn on Dolby Atmos

1. Go to Settings > Music > Dolby Atmos.
2. Choose Automatic or Always On.

- *Automatic:* Plays Dolby Atmos whenever iPhone is connected to compatible headphones such as AirPods (3rd generation), AirPods Pro, or AirPods Max, or to speakers or receivers compatible with Dolby Atmos.
- *Always On:* Plays Dolby Atmos on any headphones or speakers. The Music app will attempt to play Dolby Atmos tracks on any headphones or speakers connected to iPhone.

Dolby Atmos will play on any headphones, but not all speakers will play Dolby Atmos as intended.

Control Spatial Audio and head tracking on iPhone

The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.

The following iPhone screen shots show a user interface allowing a user to select media type for transforming the media data.

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	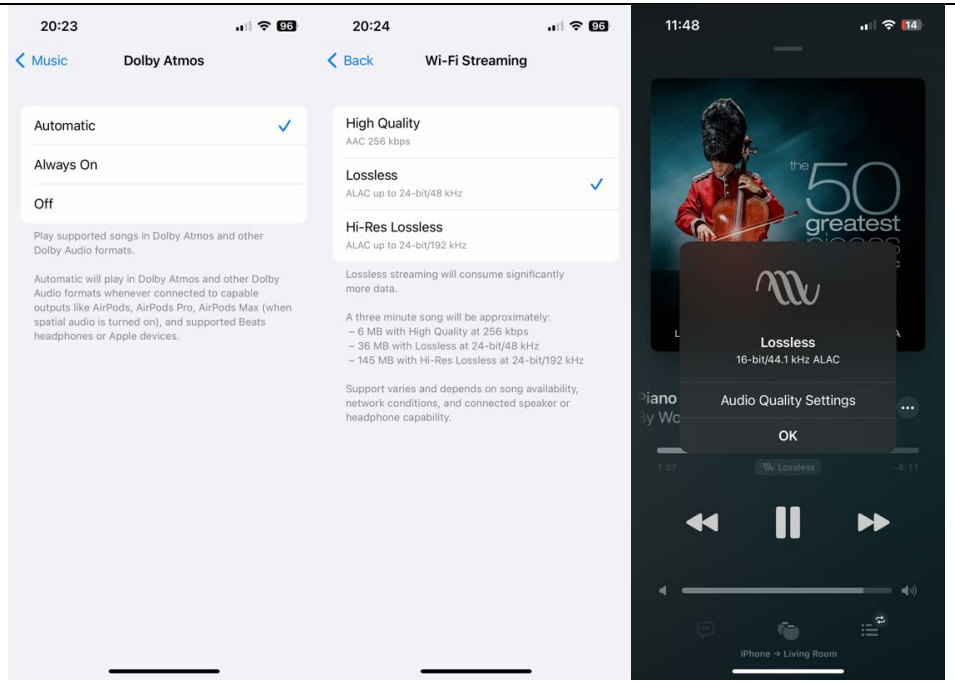
a media cloner, associated with said media transformer, for making multiple copies of a single incoming data stream, thereby to enable said apparatus to redirect said single incoming data stream to a plurality of locations, at least some of said multiple copies being transformed via said media transformer.	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a media cloner, associated with said media transformer, for making multiple copies of a single incoming data stream, thereby to enable said apparatus to redirect said single incoming data stream to a plurality of locations, at least some of said multiple copies being transformed via said media transformer. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay is capable of streaming a single data stream (i.e., an audio stream) to one or more compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network.

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	"Play audio on multiple AirPlay 2-enabled devices: With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen, on an Apple TV in the bedroom, and on an AirPlay 2-enabled smart TV in the den." Ref. 10, https://support.apple.com/en-il/guide/iphone/iph315e0d58d/ios "As long as all the devices are on the same wi-fi network (remember, AirPlay requires a wi-fi connection to work), you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know

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23. Apparatus for routing'and rerouting media data, the apparatus being mobile and comprising: a media data transfer device comprising:	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a media data transfer device that can route and reroute media data. On information and belief, various apps that come pre-installed (or can be installed later) on many Apple iPhones and tablets (iPads or iPod Touch) are media data streaming enabled, such as the Apple Music, Apple Podcasts, Amazon Music and Spotify. "AirPlay lets you share videos, photos, music, and more from Apple devices to your Apple TV, favorite speakers, and popular smart TVs. And what you share always stays personal and private. So sit back and enjoy everything you love — in more places than ever." Ref. 1, https://www.apple.com/airplay/ "Stream music, podcasts, and other audio to Apple TV, HomePod, or AirPlay 2-compatible speakers or smart TVs. Play audio across multiple speakers throughout your home in perfect sync. Or play something different in every room — all with AirPlay." "Play audio on your iPhone or iPad with iOS 11.4 or later, Apple TV, or a Mac with macOS Catalina or later. Then use AirPlay to stream that audio to your AirPlay-compatible speakers or smart TVs." Ref. 2, https://support.apple.com/en-il/HT202809
an announcer device configured for indicating to surrounding media handling devices that said media data transfer device is available to receive media data, thereby to enable receipt of rerouted data from said surrounding media handling devices, and	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises an announcer device configured for indicating to surrounding media handling devices that said media data transfer device is available to receive media data, thereby to enable receipt of rerouted data from said surrounding media handling devices. An Apple mobile apparatus (e.g., a smartphone or tablet) running AirPlay announces its availability to receive media data to surrounding equipment (e.g. APs, routers and other wi-fi clients like Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) as well as its availability to receive rerouted data from said surrounding equipment. "…AirPlay and AirPlay 2 will work over any IP network connection, whether wired or wireless (Wi-Fi). The only rule is that all AirPlay devices must be on the same network."

	Ref. 3, https://www.digitaltrends.com/home-theater/apple-airplay-2-explained/ Connecting to the Wi-Fi network, the Apple mobile apparatus (e.g. the wi-fi client) announces itself by sending probe request frames in accordance with the wi-fi protocol. "The client sends probe request frames which contain supported data rates and 802.11 capabilities." Ref. 4, https://netbeez.net/blog/how-wifi-connection-works/ The Apple mobile apparatus can further receive acknowledgments (ACK) data from the surrounding media handling device rerouted via the router or AP devices. "In WiFi networks when a device sends a data packet, the receiving device sends an acknowledgement (ACK) back to the transmitter." Ref. x, https://blog.apnic.net/2021/01/18/is-wifi-too-polite/#:~:text=In%20WiFi%20networks%20when%20a,ACK)%20back%20to%20the%20transmitter. "Internet connectivity occurs through a wireless router. When you access Wi-Fi, you are connecting to a wireless router that allows your Wi-Fi-compatible devices to interface with the Internet." Ref. 5, https://www.cisco.com/c/en/us/products/wireless/what-is-wifi.html
a scout device configured for scanning surroundings to identify surrounding media handling devices as being compatible with given media and determine availability of said identified compatible media handling devices, thereby to reroute media data from said media data transfer device to a selected one	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a scout device configured for scanning surroundings to identify surrounding media handling devices as being compatible with given media and determine availability of said identified compatible media handling devices, thereby to reroute media data from said media data transfer device to a selected one of said surrounding media handling devices, said scout device further being configured to determine media type requirements of said media handling devices. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay scans the surroundings, while connected to a Wi-Fi network, to identify compatible media handling Wi-Fi

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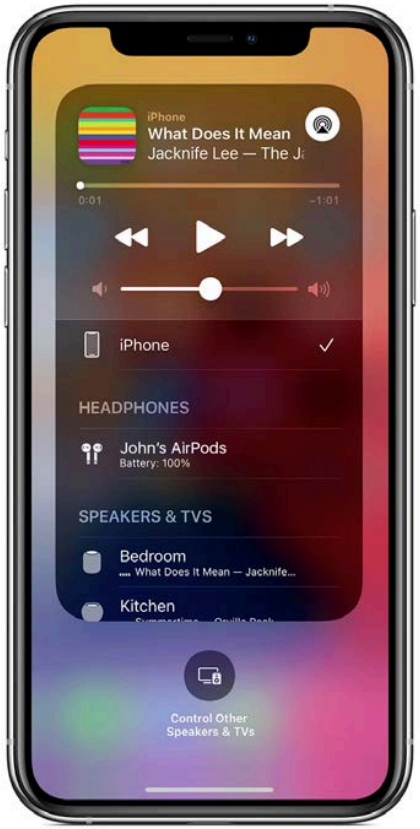
of said surrounding media handling devices, said scout device further being configured to determine media type requirements of said media handling devices;	client devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network and available to receive media data. Once connected to the Wi-Fi network, tapping the AirPlay icon on your device will list all compatible media handling devices, connected to the same network, available to receive the rerouted media data (e.g. streamed music).  Ref. 2, https://support.apple.com/en-us/HT202809

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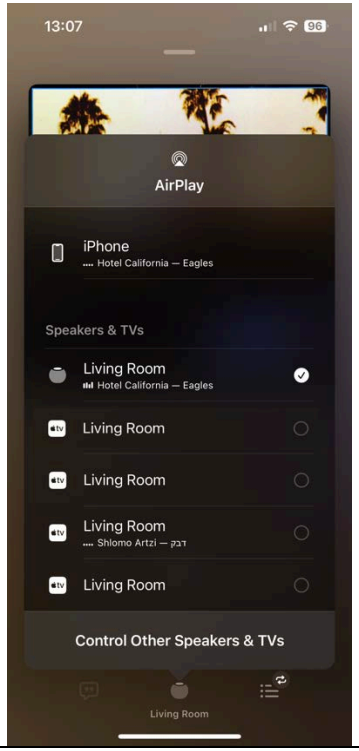
	The following links provide documentation information on different AirPlay objects providing user interface for the user to select from available devices: "AVRouteDetector: An object that detects available media playback routes." Ref. 11, https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app The Apple mobile apparatus scout device determine AirPlay compatible media handling devices allowing streaming media data to these devices only as can be seen in the below iPhone screen capture. 

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a media transformer, configured to transform media into a form that accords with respective determined media type requirements, there being a plurality of said media type requirements; a user interface for allowing a user to select one of said plurality of media type requirements for transforming at said media transformer, and	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a media transformer, configured to transform media into a form that accords with respective determined media type requirements, there being a plurality of said media type requirements; a user interface for allowing a user to select one of said plurality of media type requirements for transforming at said media transformer. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay includes a media transformer. The audio stream routed to the compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) is being transformed to a format compatible with the destination device. "…with regards to using AirPlay 2 to send lossless Apple Music streams. Apple Music's Lossless streams supposedly convert from ALAC (Apple's lossless codec) into AAC (Apple's lossy codec) at a pretty lowly 256kbps when transmitted over AirPlay – and therefore *not* losslessly." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know When an Apple mobile apparatus (iPhone or iPad) running AirPlay streams the audio to the compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) it is converting the audio format to AAC. As can be seen in the below iPhone screen capture, the iPhone further plays Dolby Atmos format on specific compatible speakers.

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1. Go to Settings > Music > Dolby Atmos.
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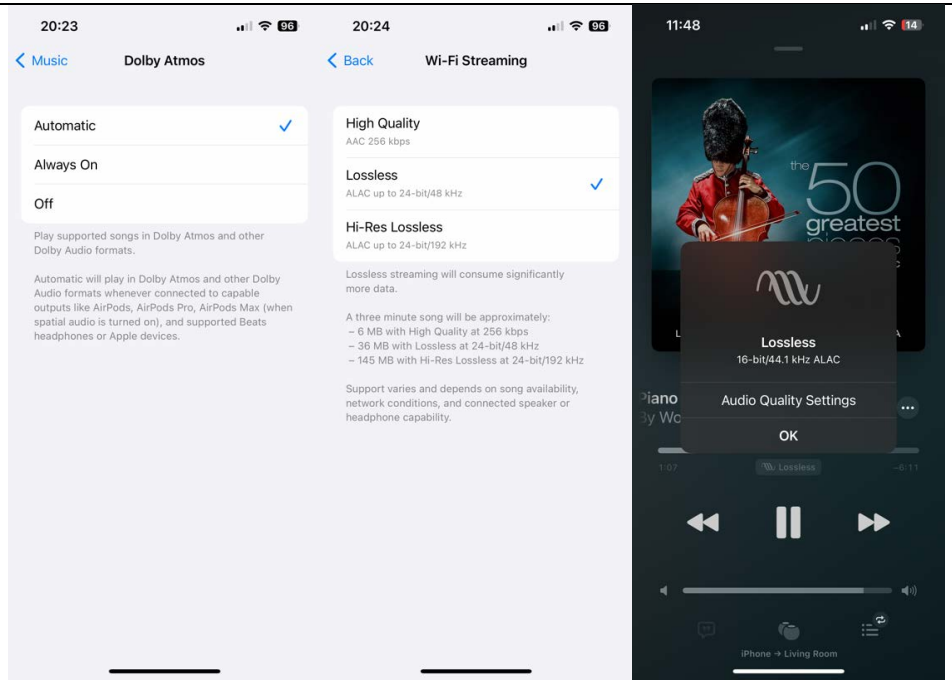
Dolby Atmos will play on any headphones, but not all speakers will play Dolby Atmos as intended.

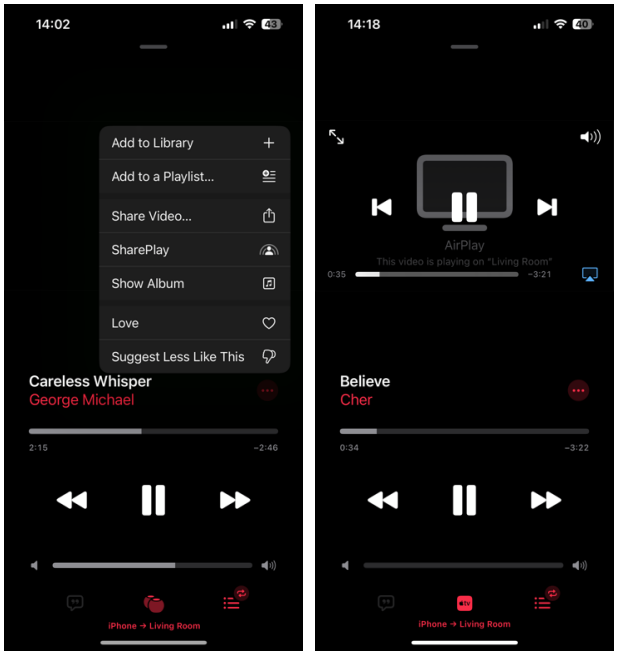
Control Spatial Audio and head tracking on iPhone

The following links provide documentation information on different formats supported by AirPlay: https://developer.apple.com/documentation/avfaudio/avaudioformat; https://developer.apple.com/documentation/avfoundation/streaming_and_airplay/supporting_airplay_in_your_app.

The following iPhone screen shots show a user interface allowing a user to select media type for transforming the media data.

	
a media cloner, associated with said media transformer, for making multiple copies of said media data, thereby to enable said apparatus to redirect said media data to a plurality of locations, at least some of said multiple copies being transformed at said media transformer.	An Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay comprises a media cloner, associated with said media transformer, for making multiple copies of said media data, thereby to enable said apparatus to redirect said media data to a plurality of locations, at least some of said multiple copies being transformed at said media transformer. For example, an Apple mobile apparatus (e.g., a smartphone or tablet – iPhone or iPad) running AirPlay is capable of streaming a data stream (i.e. audio stream) to one or more compatible devices (e.g. Apple TV, Apple HomePod smart speaker and other Airplay-compatible speakers) connected to the same network.

	"Play audio on multiple AirPlay 2-enabled devices: With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen, on an Apple TV in the bedroom, and on an AirPlay 2-enabled smart TV in the den." Ref. 10, https://support.apple.com/en-il/guide/iphone/iph315e0d58d/ios "As long as all the devices are on the same wi-fi network (remember, AirPlay requires a wi-fi connection to work), you simply have to access the music controls on, say, your iPhone, iPad or Apple TV, and select a connected speaker (or more than one) to send the music to." Ref. 9, https://www.whathifi.com/advice/apple-airplay-2-everything-you-need-to-know
24. The apparatus of claim 23, wherein said media type	The below iPhone screen shots ("Apple Music stream Screens") demonstrate the actual streaming of an Apple Music audio-video media data to a selected compatible media handling device identified by the Apple mobile apparatus – an Apple TV device and HomePod smart speaker.

requirements comprise a screen capability.	 The Apple mobile apparatus determines AirPlay-compatible equipment, allowing streaming media data to these devices only as can be seen in the below iPhone screen capture.

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	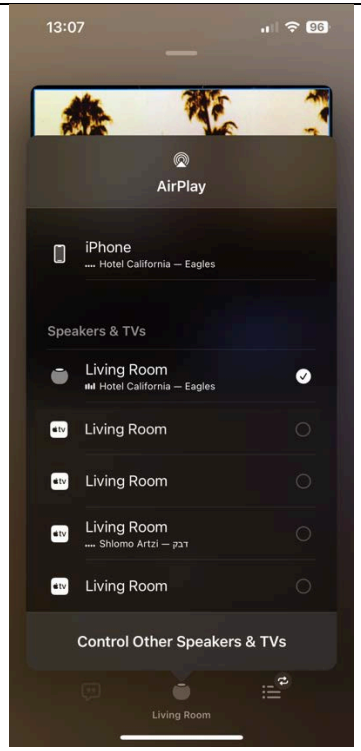 In the above “Apple Music stream Screens”, compatible equipment is identified by its screen capabilities.