

Exhibit 896-11

U.S. Patent No. 7,313,384 (“Meenan”) claims priority to an application filed on October 31, 2002 and issued on December 25, 2007. Meenan thus qualifies as prior art to the ’896 patent under 35 U.S.C. § 102(e).

The following table details how Meenan also renders obvious each of the asserted claims of the ’896 patent, alone and in combination with other prior art references. The citations to references in this exhibit are exemplary, and Respondents reserve the right to rely on additional disclosures from each cited reference. Respondents have analyzed the prior art under both Sonos’ apparent interpretation of the asserted claims and Respondents’ correct interpretation of the asserted claims. The statements and citations to prior art in this exhibit are not an admission that Sonos’ interpretations are correct.

| | <u>Claim</u> | <u>Meenan</u> |
|------|--------------------------------|--|
| 1pre | A computing device comprising: | <p>Meenan discloses a computing device.</p> <p>Meenan at Fig. 1:</p> <p align="right">FIG. 1</p> <p>Meenan at 4:33-47:</p> <p>The home-networking gateway 115 may include a home gateway device, such as a gateway, a router, or another communication device. The home-networking gateway 115 also may include a digital hub capable of receiving broadcast video signals, receiving communication data (such as through a broadband</p> |

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>connection), and distributing the signals and data to devices 112. The home-networking gateway 115 may include another communications device and/or a home entertainment device, such as a stereo system, a radio tuner, a TV tuner, a portable music player, a personal video recorder, and a gaming device. The home-networking gateway 115 communicates with the host system 120 over communications links 130. In some implementations, host system 120 may be an online access provider, such as an Internet access provider or an Internet service provider.</p> <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p>Alternatively, it would have been obvious to modify Meenan to include a computing device based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1pre.</p> |
| 1a | a user interface; | <p>Meenan discloses a user interface.</p> <p>Meenan at Fig. 1:</p> |

Claim

Meenan

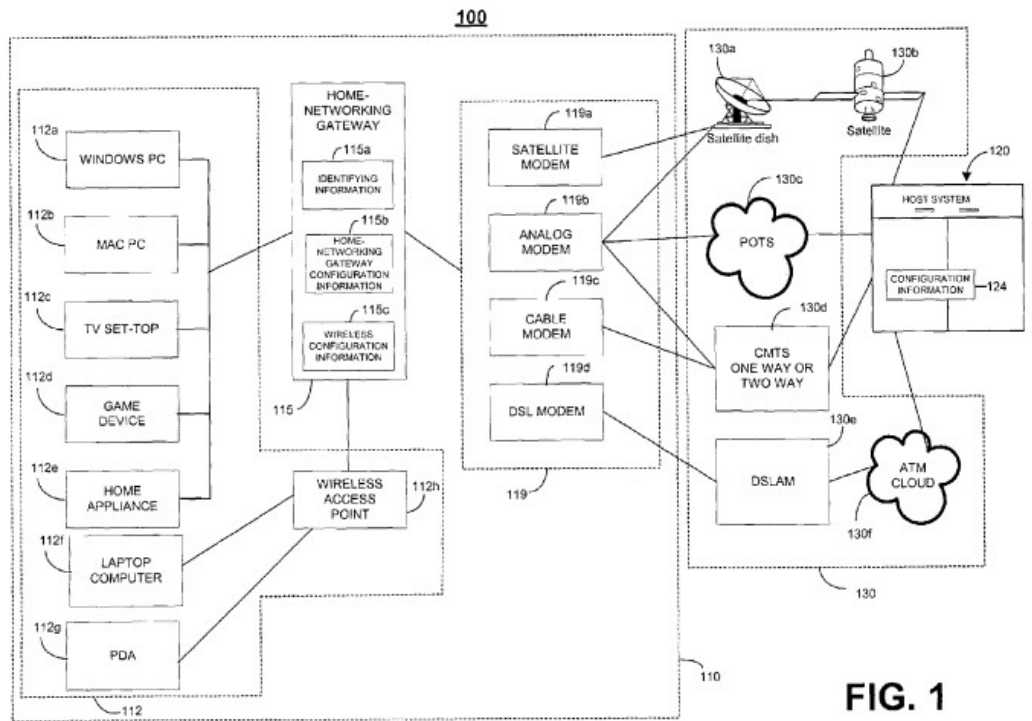


FIG. 1

Meenan at 4:33-47:

The home-networking gateway 115 may include a home gateway device, such as a gateway, a router, or another communication device. The home-networking gateway 115 also may include a digital hub capable of receiving broadcast video signals, receiving communication data (such as through a broadband connection), and distributing the signals and data to devices 112. The home-networking gateway 115 may include another communications device and/or a home entertainment device, such as a stereo system, a radio tuner, a TV tuner, a portable music player, a personal video recorder, and a gaming device. The home-networking gateway 115 communicates with the host system 120 over communications links 130. In some implementations, host system 120 may be an online access provider, such as an Internet access provider or an Internet service provider.

Meenan at 15:29-53:

The process 500 begins when a home-networking gateway receives and stores wireless configuration information (step 510). Wireless configuration information may include a security key and a network name, as described previously with respect to wireless configuration information 115 c of FIG. 1. Reception and storage of configuration information may occur during the manufacturing or distribution process of the home-networking gateway. For example, the home-networking gateway may be pre-configured with wireless

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>configuration information at a factory or distribution point. Alternatively or additionally, the home-networking gateway may receive the wireless configuration information by accessing storage media (including magnetic, optical or solid state storage media) or any type of storage device (including a drive, a microdrive, a compact disc (CD), a recordable CD, a rewriteable CD, a flash memory, or a solid-state floppy disk card) that stores the wireless configuration information. The home-networking gateway also may receive the wireless configuration information from a user interface of the home-networking gateway through which a user may enter wireless configuration information to be stored by the home-networking gateway. The home-networking gateway also may receive the wireless configuration information when the user configures another wireless device.</p> <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p>Alternatively, it would have been obvious to modify Meenan to provide a user interface based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1a.</p> |
| 1b | a network interface; | <p>Meenan discloses a network interface.</p> <p>Meenan at Fig. 1:</p> |

Claim

Meenan

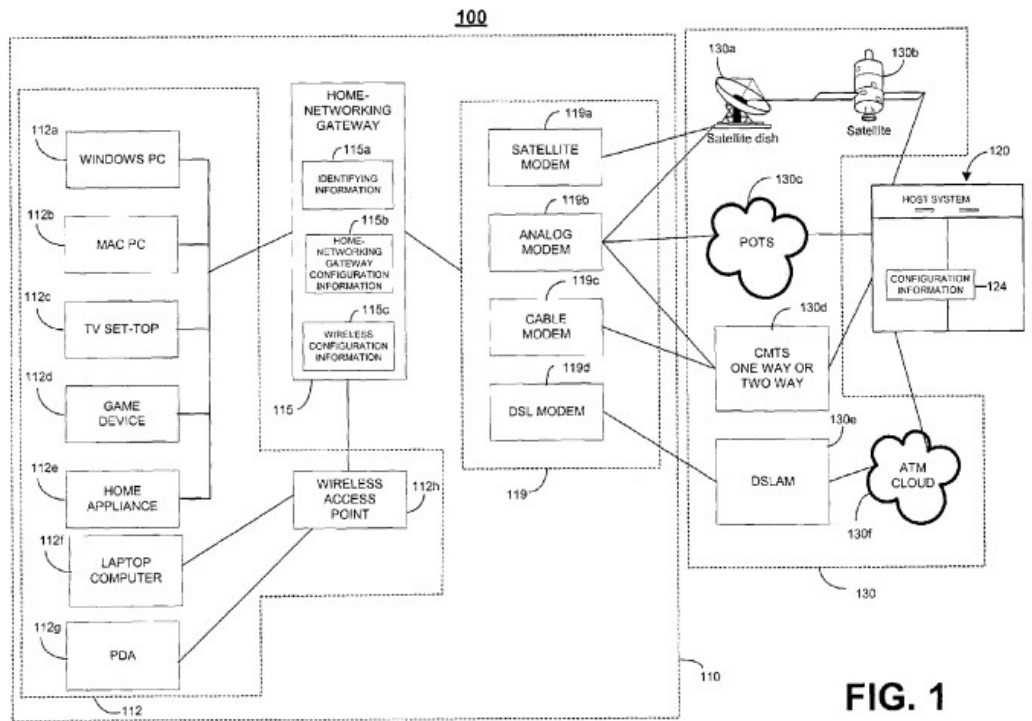


FIG. 1

Meenan at 4:33-47:

The home-networking gateway 115 may include a home gateway device, such as a gateway, a router, or another communication device. The home-networking gateway 115 also may include a digital hub capable of receiving broadcast video signals, receiving communication data (such as through a broadband connection), and distributing the signals and data to devices 112. The home-networking gateway 115 may include another communications device and/or a home entertainment device, such as a stereo system, a radio tuner, a TV tuner, a portable music player, a personal video recorder, and a gaming device. The home-networking gateway 115 communicates with the host system 120 over communications links 130. In some implementations, host system 120 may be an online access provider, such as an Internet access provider or an Internet service provider.

Meenan at 21:6-11:

The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.

Alternatively, it would have been obvious to modify Meenan to provide a

| | <u>Claim</u> | <u>Meenan</u> |
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network interface based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1b.

1c at least one processor;

Meenan discloses at least one processor.

Meenan at Fig. 1:

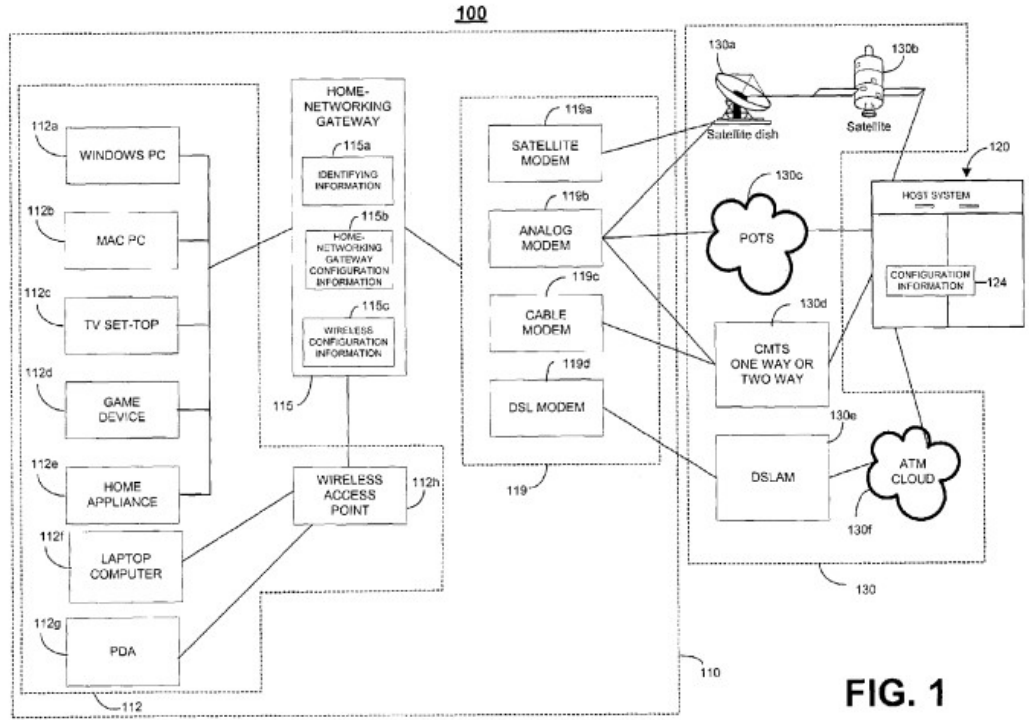


FIG. 1

Meenan at 4:33-47:

The home-networking gateway 115 may include a home gateway device, such as a gateway, a router, or another communication device. The home-networking gateway 115 also may include a digital hub capable of receiving broadcast video signals, receiving communication data (such as through a broadband connection), and distributing the signals and data to devices 112. The home-networking gateway 115 may include another communications device and/or a home entertainment device, such as a stereo system, a radio tuner, a TV tuner, a portable music player, a personal video recorder, and a gaming device. The home-networking gateway 115 communicates with the host system 120 over communications links 130. In some implementations, host system 120 may be an online access provider, such as an Internet access provider or an Internet service provider.

Meenan at 21:6-11:

| | <u>Claim</u> | <u>Meenan</u> |
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The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.

Alternatively, it would have been obvious to modify Meenan to provide at least one processor based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1c.

1d
a non-transitory computer-readable medium;
and

Meenan discloses a non-transitory computer-readable medium.
Meenan at Fig. 1:

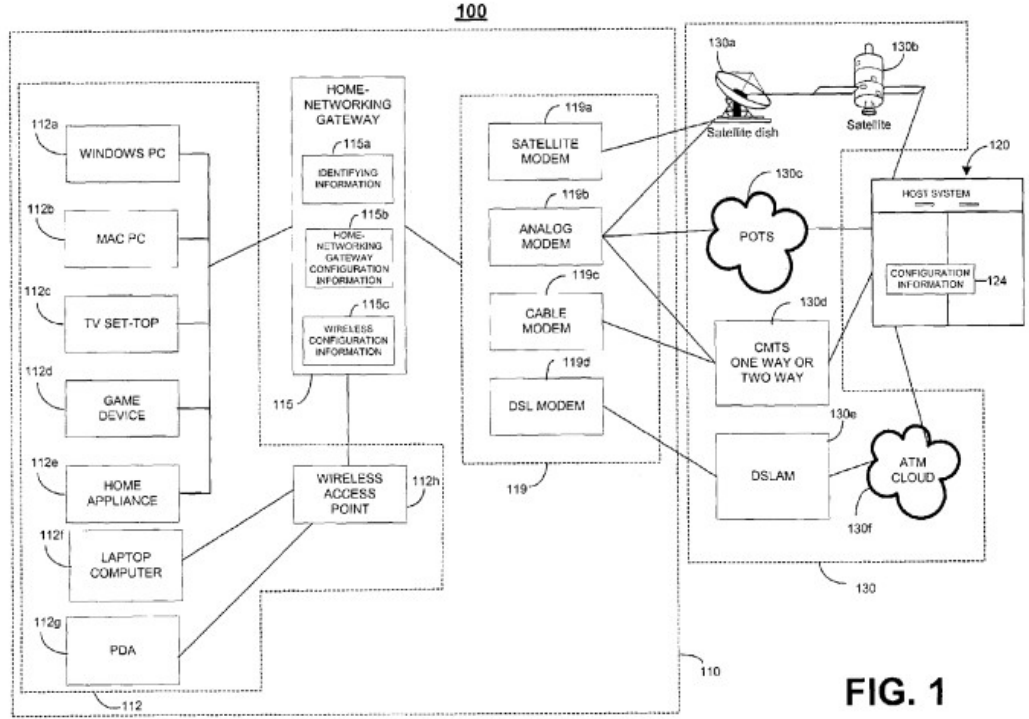


FIG. 1

Meenan at 4:33-47:

The home-networking gateway 115 may include a home gateway device, such as a gateway, a router, or another communication device. The home-networking gateway 115 also may include a digital hub capable of receiving broadcast video signals, receiving communication data (such as through a broadband connection), and distributing the signals and data to devices 112. The home-networking gateway 115 may include another communications device and/or a home entertainment device, such as a stereo system, a radio tuner, a TV tuner, a portable music player, a personal video recorder, and a gaming device. The

| | <u>Claim</u> | <u>Meenan</u> |
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| | | <p>home-networking gateway 115 communicates with the host system 120 over communications links 130. In some implementations, host system 120 may be an online access provider, such as an Internet access provider or an Internet service provider.</p> <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p>Alternatively, it would have been obvious to modify Meenan to provide a non-transitory computer-readable medium based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1d.</p> |
| 1e | <p>program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:</p> | <p>Meenan discloses program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions.</p> <p>Meenan at Fig. 1:</p> <p>The diagram, labeled FIG. 1, illustrates a home network system (100). On the left, a group of devices (112) is connected to a central HOME-NETWORKING GATEWAY (115). These devices include a WINDOWS PC (112a), MAC PC (112b), TV SET-TOP (112c), GAME DEVICE (112d), HOME APPLIANCE (112e), LAPTOP COMPUTER (112f), and PDA (112g). The HOME-NETWORKING GATEWAY (115) contains IDENTIFYING INFORMATION (115a), HOME-NETWORKING GATEWAY CONFIGURATION INFORMATION (115b), and WIRELESS CONFIGURATION INFORMATION (115c). A WIRELESS ACCESS POINT (112h) is also connected to the gateway. To the right, the gateway is connected to a set of modems (119) including a SATELLITE MODEM (119a), ANALOG MODEM (119b), CABLE MODEM (119c), and DSL MODEM (119d). These modems connect to various external networks (130): the satellite modem connects to a satellite dish (130a) and a satellite (130b); the analog modem connects to a POTS network (130c); the cable modem connects to a CMTS ONE WAY OR TWO WAY network (130d); and the DSL modem connects to a DSLAM (130e) and an ATM CLOUD (130f). A HOST SYSTEM (120) is connected to the POTS network (130c) and contains CONFIGURATION INFORMATION (124). The entire system is labeled 100.</p> |

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>Meenan at 4:33-47:</p> <p>The home-networking gateway 115 may include a home gateway device, such as a gateway, a router, or another communication device. The home-networking gateway 115 also may include a digital hub capable of receiving broadcast video signals, receiving communication data (such as through a broadband connection), and distributing the signals and data to devices 112. The home-networking gateway 115 may include another communications device and/or a home entertainment device, such as a stereo system, a radio tuner, a TV tuner, a portable music player, a personal video recorder, and a gaming device. The home-networking gateway 115 communicates with the host system 120 over communications links 130. In some implementations, host system 120 may be an online access provider, such as an Internet access provider or an Internet service provider.</p> <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p>Alternatively, it would have been obvious to modify Meenan to provide program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1e.</p> |
| 1f | while operating on a secure wireless local area network (WLAN) that is defined by an access point, (a) receiving, via a graphical user interface (GUI) associated with an application for controlling one or more playback devices, user input indicating | <p>Meenan discloses, while operating on a secure wireless local area network (WLAN) that is defined by an access point, (a) receiving, via a graphical user interface (GUI) associated with an application for controlling one or more playback devices, user input indicating that a user wishes to set up a playback device to operate on the secure WLAN and (b) receiving a first message indicating that a given playback device is available for setup.</p> <p>Meenan at Fig. 1:</p> |

Claim

that a user wishes to set up a playback device to operate on the secure WLAN and (b) receiving a first message indicating that a given playback device is available for setup;

Meenan

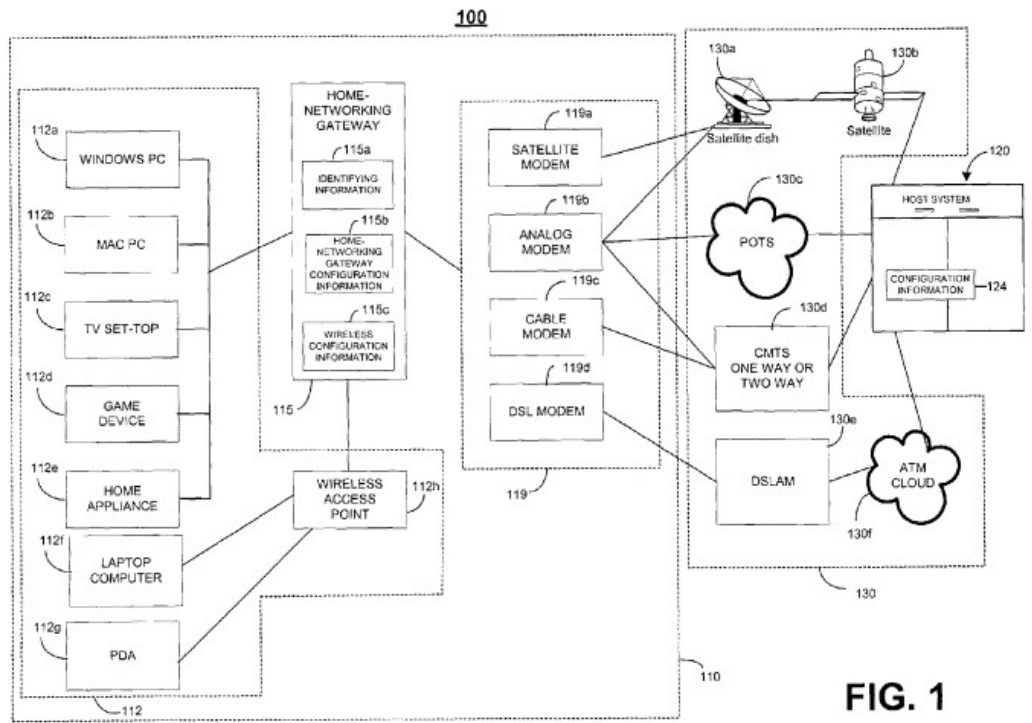
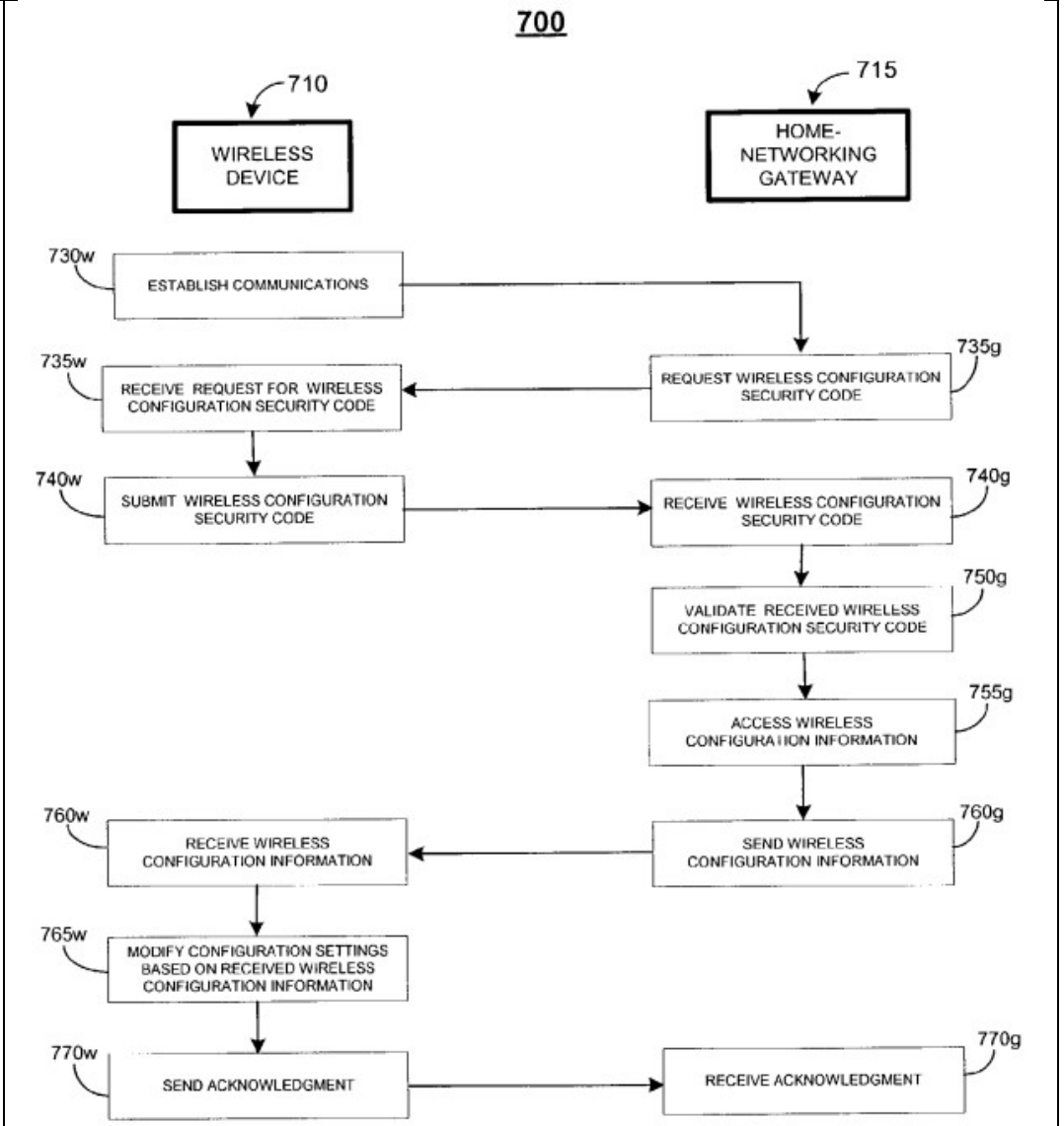


FIG. 1

Meenan at Fig. at 7:

| <u>Claim</u> | <u>Meenan</u> |
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Meenan at 3:28-42:

The devices 112 may include one or more general-purpose computers (e.g., personal computers), one or more special-purpose computers (e.g., devices specifically programmed to communicate with the home-networking gateway 115 and/or the host system 120), or a combination of one or more general-purpose computers and one or more special-purpose computers. Other examples of devices 112 include a workstation, a server, an appliance (e.g., a refrigerator, a microwave, and an oven), an intelligent household device (e.g., a thermostat, a security system, a heating, ventilation and air conditioning (HVAC) system, and a stereo system), a device, a component, other physical or virtual equipment, or some combination of these elements capable of responding

| <u>Claim</u> | <u>Meenan</u> |
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| | <p>to and executing instructions within the system architecture.</p> <p>Meenan at 3:59-4:8:</p> <p>Some of the other devices, such as a laptop computer 112 <i>f</i> and a PDA 112 <i>g</i>, typically communicate with the home-networking gateway 115 using a wireless access point 112 <i>h</i>. When devices communicate using wireless access point 112 <i>h</i>, they may be referred to as wireless devices. Wireless devices are not limited to portable devices. For example, a desktop personal computer, such as a personal computer with a Windows™ OS 112 <i>a</i> or a Macintosh™ personal computer 112 <i>b</i>, may communicate using wireless access point 112 <i>h</i>. Specifically, the wireless devices communicate over a wireless communications pathway to the wireless access point 112 <i>h</i>. The wireless access point 112 <i>h</i> is connected to home-networking gateway 115 through the wired network and transmits communications received from wireless devices to the home-networking gateway 115. In some implementations, the wireless access point 112 <i>h</i> may be a component of the home-networking gateway 115.</p> <p>Meenan at 4:9-32:</p> <p>A wireless communications pathway may use various protocols to communicate from a wireless devices to a wireless access point 112 <i>h</i>. For example, the wireless communications pathway may use wireless technology based on the Institute of Electrical and Electronics Engineers, Inc. (IEEE) 802.11 standard (such as 802.11b or 802.11a). The wireless communications pathway also may use wireless technology based on the Bluetooth approach for short range wireless communications, other personal area network (PAN) technologies, or other wireless technology, such as the HiperLan2 standard by the European Telecommunications Standards Institute (ETSI).</p> <p>Meenan at 15:29-53:</p> <p>The process 500 begins when a home-networking gateway receives and stores wireless configuration information (step 510). Wireless configuration information may include a security key and a network name, as described previously with respect to wireless configuration information 115 <i>c</i> of FIG. 1. Reception and storage of configuration information may occur during the manufacturing or distribution process of the home-networking gateway. For example, the home-networking gateway may be pre-configured with wireless configuration information at a factory or distribution point. Alternatively or additionally, the home-networking gateway may receive the wireless configuration information by accessing storage media (including magnetic, optical or solid state storage media) or any type of storage device (including a drive, a microdrive, a compact disc (CD), a recordable CD, a rewriteable CD, a flash memory, or a solid-state floppy disk card) that stores the wireless</p> |

| <u>Claim</u> | <u>Meenan</u> |
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| | <p>configuration information. The home-networking gateway also may receive the wireless configuration information from a user interface of the home-networking gateway through which a user may enter wireless configuration information to be stored by the home-networking gateway. The home-networking gateway also may receive the wireless configuration information when the user configures another wireless device.</p> <p>Meenan at 6:12-37:</p> <p>The wireless configuration information 115 <i>c</i> may be stored in a table or a list on the home-networking gateway 115. The wireless configuration information 115 <i>c</i> may include a security key, such as a wired equivalent privacy (WEP) key that may be used to encrypt and decrypt transmitted data, and a wireless network name, such as a service set identifier (SSID) that identifies the particular network. The wireless configuration information 115 <i>c</i> also may include a list of devices that are permitted access to the home network. For example, the wireless configuration information 115 <i>c</i> may include a list of MAC addresses that uniquely identify the devices that are permitted access to the home network. The wireless configuration information 115 <i>c</i> also may include other configuration information, such as a level of encryption (e.g., 40-bit encryption or 128-bit encryption) associated with a WEP key. The storage of wireless configuration information 115 <i>c</i> may be useful for a wireless device, such as laptop computer 112 <i>f</i> that must maintain common configuration information with a wireless access point to enable communications with the wireless access point. For instance, a wireless device and a wireless access point may be required to maintain the following configuration information in common to enable them to communicate: a WEP key, a SSID, a list of devices that are permitted access, and a level of encryption associated with the WEP key (e.g., 40-bit encryption or 128-bit encryption).</p> <p>Meenan at 8:23-32:</p> <p>In some implementations, the home-networking gateway 115 may perform as or include a wireless access point 112. Additionally or alternatively, the home-networking gateway 115 may communicate with devices using only a wireless communications pathway. In other implementations, the home-networking gateway 115 may communicate with devices using only a wired communications pathway. Additionally or alternatively, the home-networking gateway 115 may include one or more of a communications device 119 and/or one or more of devices 112.</p> <p>Meenan at 15:66-16:9</p> <p>The home-networking gateway and the wireless access point establish communications using a protocol known to both devices. For example, UPnp</p> |

| <u>Claim</u> | <u>Meenan</u> |
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| | <p>(“Universal Plug and Play”) may be used. When a wire is plugged into the wireless access point, the wireless access point may announce its presence by sending a message over the wire. The home-networking gateway may receive the message and detect the wireless access point based on the received message. The home-networking gateway may send to the wireless access point a reply message announcing the presence of the home-networking gateway.</p> <p>Meenan at 18:17-31</p> <p>Additionally or alternatively, the operator may be able to display the security code using the home-networking gateway 715 and enter the displayed code into the wireless device in response to a prompt or other type of request by the home-networking gateway 715. The home-networking gateway 715 may access a security code that has been programmed into (or otherwise stored on) the home-networking gateway 715 before delivery to the owner of the home-networking gateway. For example, the home-networking gateway 715 may be programmed or otherwise configured with the security code at a factory or at a distribution point. The home-networking gateway 715 also may access a security code that is stored on a removable magnetic, optical or solid state storage device associated with the home-networking gateway.</p> <p>Meenan at 18:46-63:</p> <p>The wireless device 710 may be a wireless device that is capable of communicating with a home network, for example, by communicating with a wireless access point, such as wireless access point 112 <i>h</i> of FIG. 1, or with a home-networking gateway that includes wireless communication capabilities. The wireless device 610 also may have a capability to communicate over a wired connection to a home-networking gateway. For example, the wireless device 610 may be a laptop computer, such as laptop computer 112 <i>f</i>, or a PDA, such as PDA 112 <i>g</i>, that may be equipped with both wireless and wired communication capabilities. The wireless device 710 is physically connected through a wired communications pathway to the home-networking gateway 715, which may correspond, for example, to the home-networking gateway 115 of FIG. 1, the home-networking gateway 215 of FIG. 2, the home-networking gateway 315 of FIG. 3, or the home-networking gateway 615 of FIG. 6.</p> <p>Meenan at 18:64-19:6:</p> <p>The process 700 begins when the wireless device 710 establishes communications over the wired communications pathway with the home-networking gateway 715 (step 730 <i>w</i>). The wired communications pathway may be a wired communications pathway that uses a network communications pathway. The wired communications pathway also may be a wired</p> |

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>communications pathway that may be provided through a wire specifically designed to connect a wireless access point to a home-networking gateway and not designed for general network communications.</p> <p>Meenan at 19:10-18</p> <p>The wireless device 710 receives the request (step 735 <i>w</i>) and submits the wireless configuration security code (step 740 <i>w</i>). The wireless configuration security code may be submitted through the input of a security code by the home-networking gateway operator in response to a prompt or other type of request. The wireless configuration security code may be submitted when the wireless device 710 accesses a removable storage device that stores the security code.</p> <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p>Alternatively, it would have been obvious to modify Meenan to perform the function of, while operating on a secure wireless local area network (WLAN) that is defined by an access point, (a) receiving, via a graphical user interface (GUI) associated with an application for controlling one or more playback devices, user input indicating that a user wishes to set up a playback device to operate on the secure WLAN and (b) receiving a first message indicating that a given playback device is available for setup based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1f.</p> |
| 1g | after receiving the user input and receiving the first message, transmitting a response to the first message that facilitates establishing an initial communication path with the given playback | <p>Meenan discloses, after receiving the user input and receiving the first message, transmitting a response to the first message that facilitates establishing an initial communication path with the given playback device, wherein the initial communication path with the given playback device does not traverse the access point.</p> <p>Meenan at Fig. 1:</p> |

Claim

device, wherein the initial communication path with the given playback device does not traverse the access point;

Meenan

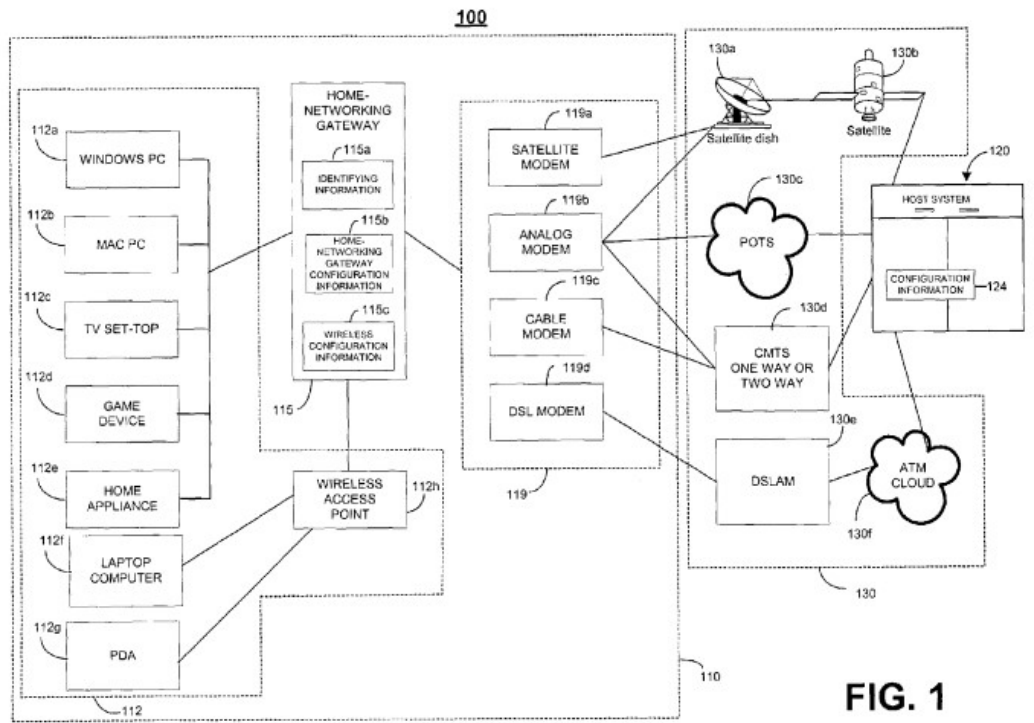


FIG. 1

Meenan at Fig. at 7:

| <u>Claim</u> | <u>Meenan</u> |
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| | | <p>700</p> <pre> graph TD 710[WIRELESS DEVICE] 715[HOME-NETWORKING GATEWAY] 730w[ESTABLISH COMMUNICATIONS] 735g[REQUEST WIRELESS CONFIGURATION SECURITY CODE] 735w[RECEIVE REQUEST FOR WIRELESS CONFIGURATION SECURITY CODE] 740w[SUBMIT WIRELESS CONFIGURATION SECURITY CODE] 740g[RECEIVE WIRELESS CONFIGURATION SECURITY CODE] 750g[VALIDATE RECEIVED WIRELESS CONFIGURATION SECURITY CODE] 755g[ACCESS WIRELESS CONFIGURATION INFORMATION] 760g[SEND WIRELESS CONFIGURATION INFORMATION] 760w[RECEIVE WIRELESS CONFIGURATION INFORMATION] 765w[MODIFY CONFIGURATION SETTINGS BASED ON RECEIVED WIRELESS CONFIGURATION INFORMATION] 770w[SEND ACKNOWLEDGMENT] 770g[RECEIVE ACKNOWLEDGMENT] 710 --> 730w 730w --> 715 715 --> 735g 735g --> 735w 735w --> 740w 740w --> 740g 740g --> 750g 750g --> 755g 755g --> 760g 760g --> 760w 760w --> 765w 765w --> 770w 770w --> 770g 770g --> 715 </pre> <p>Meenan at 18:17-31</p> <p>Additionally or alternatively, the operator may be able to display the security code using the home-networking gateway 715 and enter the displayed code into the wireless device in response to a prompt or other type of request by the home-networking gateway 715. The home-networking gateway 715 may access a security code that has been programmed into (or otherwise stored on) the home-networking gateway 715 before delivery to the owner of the home-networking gateway. For example, the home-networking gateway 715 may be programmed or otherwise configured with the security code at a factory or at a distribution point. The home-networking gateway 715 also may access a security code that is stored on a removable magnetic, optical or solid state storage device associated</p> |
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| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>with the home-networking gateway.</p> <p>Meenan at 19:7-9:</p> <p>The home-networking gateway 715 requests provision of a wireless configuration security code from the wireless device 710 (step 735 g).</p> <p>Meenan at 19:10-18</p> <p>The wireless device 710 receives the request (step 735 w) and submits the wireless configuration security code (step 740 w). The wireless configuration security code may be submitted through the input of a security code by the home-networking gateway operator in response to a prompt or other type of request. The wireless configuration security code may be submitted when the wireless device 710 accesses a removable storage device that stores the security code.</p> <p>Alternatively, it would have been obvious to modify Meenan to perform the function of, after receiving the user input and receiving the first message, transmitting a response to the first message that facilitates establishing an initial communication path with the given playback device, wherein the initial communication path with the given playback device does not traverse the access point based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1g.</p> |
| 1h | <p>transmitting, to the given playback device via the initial communication path, at least a second message containing network configuration parameters, wherein the network configuration parameters comprise an identifier of the secure WLAN and a security key for the secure</p> | <p>Meenan discloses transmitting, to the given playback device via the initial communication path, at least a second message containing network configuration parameters, wherein the network configuration parameters comprise an identifier of the secure WLAN and a security key for the secure WLAN.</p> <p>Meenan at Fig. 1:</p> |

Claim

Meenan

WLAN;

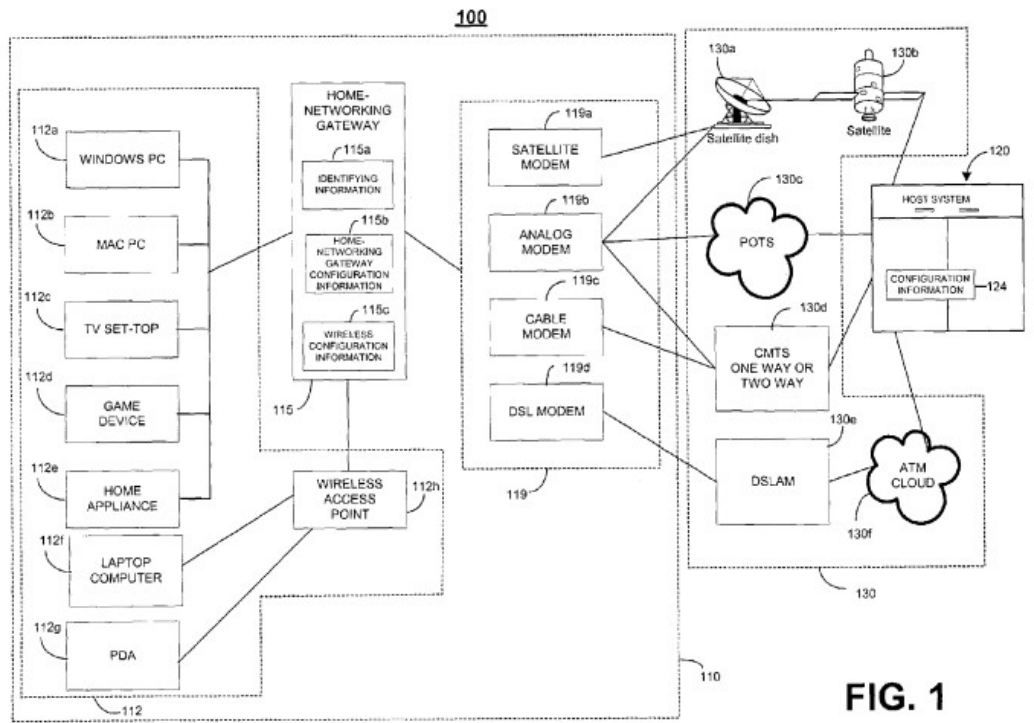
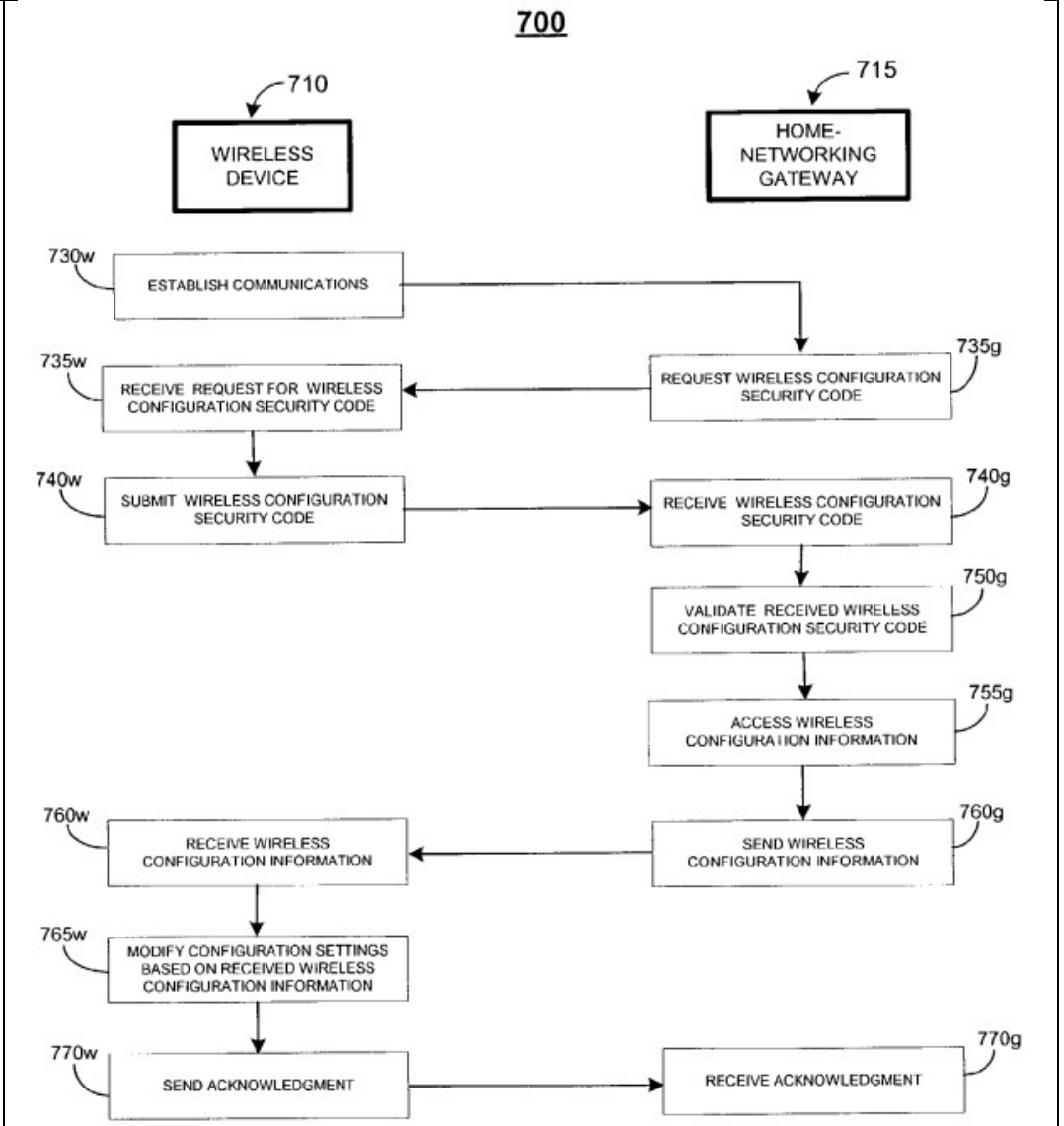


FIG. 1

Meenan at Fig. at 7:

| <u>Claim</u> | <u>Meenan</u> |
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Meenan at 6:12-37:

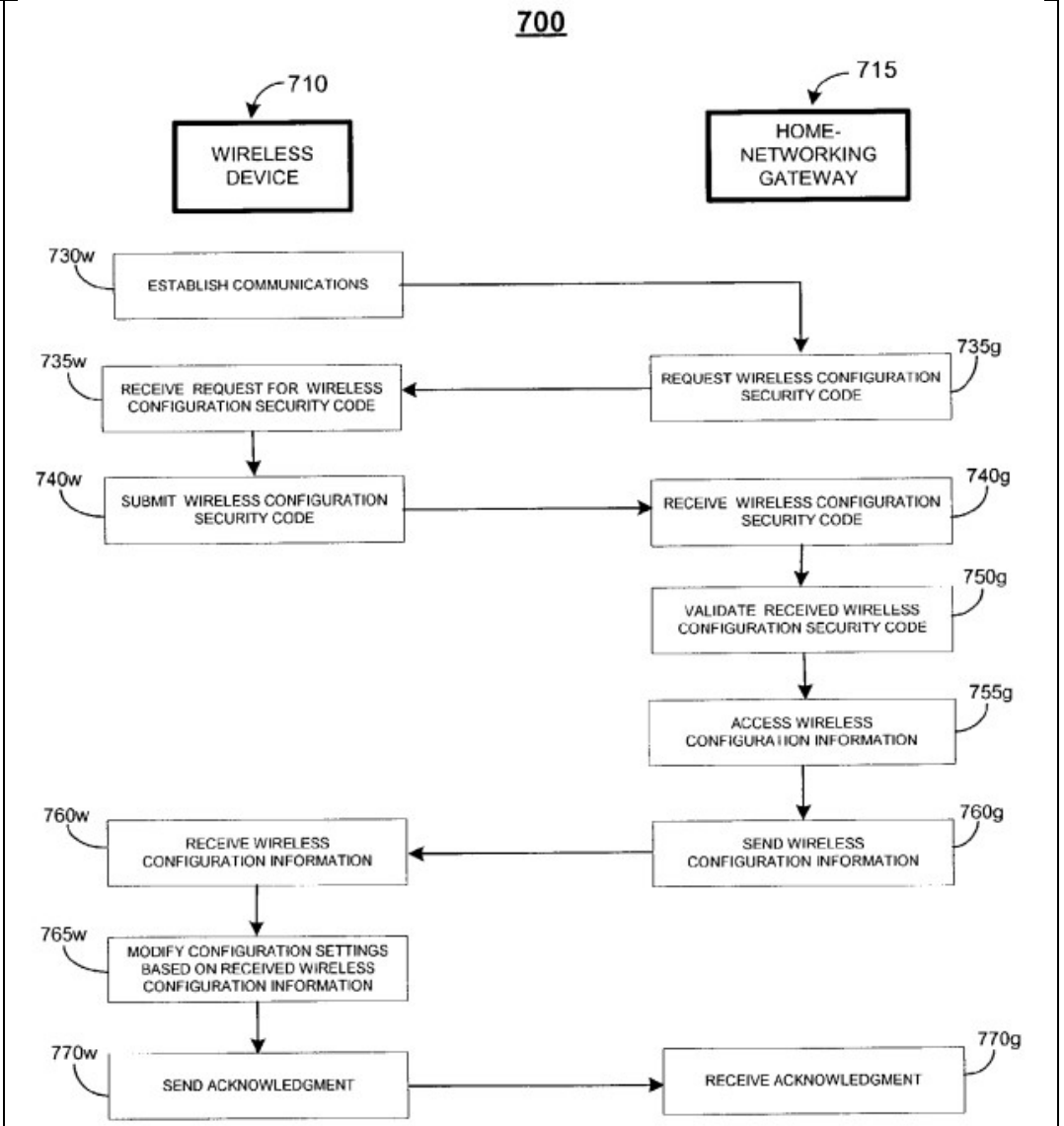
The wireless configuration information 115 *c* may be stored in a table or a list on the home-networking gateway 115. The wireless configuration information 115 *c* may include a security key, such as a wired equivalent privacy (WEP) key that may be used to encrypt and decrypt transmitted data, and a wireless network name, such as a service set identifier (SSID) that identifies the particular network. The wireless configuration information 115 *c* also may include a list of devices that are permitted access to the home network. For example, the wireless configuration information 115 *c* may include a list of MAC addresses that uniquely identify the devices that are permitted access to the home network. The wireless configuration information 115 *c* also may

| <u>Claim</u> | <u>Meenan</u> |
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| | <p>include other configuration information, such as a level of encryption (e.g., 40-bit encryption or 128-bit encryption) associated with a WEP key. The storage of wireless configuration information 115 <i>c</i> may be useful for a wireless device, such as laptop computer 112 <i>f</i> that must maintain common configuration information with a wireless access point to enable communications with the wireless access point. For instance, a wireless device and a wireless access point may be required to maintain the following configuration information in common to enable them to communicate: a WEP key, a SSID, a list of devices that are permitted access, and a level of encryption associated with the WEP key (e.g., 40-bit encryption or 128-bit encryption).</p> <p>Meenan at 19:30-40:</p> <p>When the home-networking gateway 715 is able to validate the received security code, the home-networking gateway 715 accesses wireless configuration information (step 755 <i>g</i>). For example, the home-networking gateway 715 may store wireless configuration information, as described previously with respect to home-networking gateway 115 of FIG. 1. The accessed wireless configuration information may include, for example, a security key (e.g., a WEP key), a network name (such as a SSID), a list of devices permitted to access the network, and other information needed to configure the device to work on the wireless home network.</p> <p>Meenan at 19:41-64:</p> <p>The home-networking gateway 715 sends the accessed wireless configuration information to the wireless device (step 760 <i>g</i>). The wireless device 710 receives the wireless configuration information (step 760 <i>w</i>) and modifies the configuration information previously stored by the wireless device (step 765 <i>w</i>), to the extent that it exists. For example, the wireless device 710 may update a configuration table (or otherwise modify the configuration parameters) with the wireless configuration information received. Alternatively or additionally, the home-networking gateway 715 may act as a configuration proxy and modify the configuration table or parameters on the wireless device 710. In some implementations, the wireless device 710 may include more than one set of configuration settings. The set of configuration settings used by the wireless device 710 may be based on the network identifier of the wireless network with which the wireless device 710 is communicating. For example, a laptop computer may store a set of configuration settings to communicate with a wireless network at an office and may also store a different set of configuration settings to communicate with a wireless network at a residence or home. The laptop computer may communicate with either the office network or the home network using the appropriate settings.</p> <p>Alternatively, it would have been obvious to modify Meenan to perform the</p> |

| | <u>Claim</u> | <u>Meenan</u> |
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| | | <p>function of transmitting, to the given playback device via the initial communication path, at least a second message containing network configuration parameters, wherein the network configuration parameters comprise an identifier of the secure WLAN and a security key for the secure WLAN based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1h.</p> |
| <p>1i</p> | <p>after transmitting at least the second message containing the network configuration parameters, detecting an indication that the given playback device has successfully received the network configuration parameters; and</p> | <p>Meenan discloses, after transmitting at least the second message containing the network configuration parameters, detecting an indication that the given playback device has successfully received the network configuration parameters.</p> <p>Meenan at Fig. 1:</p> <p>Meenan at Fig. at 7:</p> |

| <u>Claim</u> | <u>Meenan</u> |
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Meenan at 19:41-64:

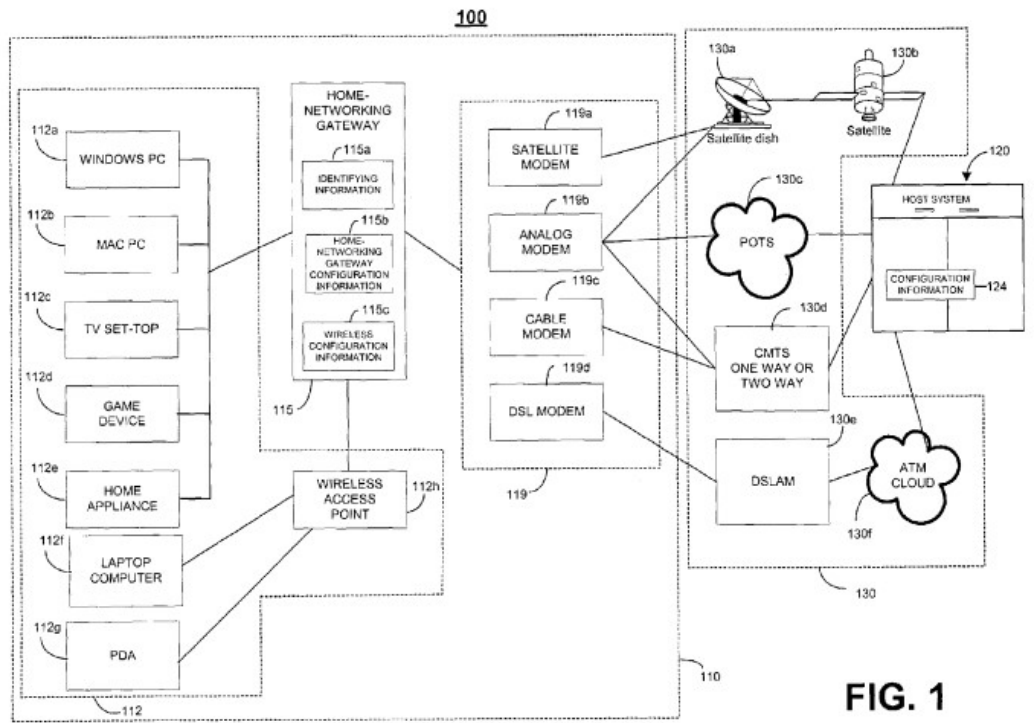
The home-networking gateway 715 sends the accessed wireless configuration information to the wireless device (step 760 g). The wireless device 710 receives the wireless configuration information (step 760 w) and modifies the configuration information previously stored by the wireless device (step 765 w), to the extent that it exists. For example, the wireless device 710 may update a configuration table (or otherwise modify the configuration parameters) with the wireless configuration information received. Alternatively or additionally, the home-networking gateway 715 may act as a configuration proxy and modify the configuration table or parameters on the wireless device 710. In some implementations, the wireless device 710 may include more than one set of

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>configuration settings. The set of configuration settings used by the wireless device 710 may be based on the network identifier of the wireless network with which the wireless device 710 is communicating. For example, a laptop computer may store a set of configuration settings to communicate with a wireless network at an office and may also store a different set of configuration settings to communicate with a wireless network at a residence or home. The laptop computer may communicate with either the office network or the home network using the appropriate settings.</p> <p>Meenan at 19:65-20:11:</p> <p>The wireless device 710 sends to the home-networking gateway 715 an acknowledgment that the wireless configuration settings have been modified (step 770 w). The home-networking gateway 615 receives the acknowledgment (step 770 g). When the home-networking gateway 715 does not receive an acknowledgment, the home-networking gateway 715 may take one of several actions, such as re-sending the wireless configuration information to the wireless device 710 or sending an electronic mail message to a user account to notify the user that an acknowledgment was not received. In some implementations, the wireless device 710 may pull information from the home-networking gateway 715 in addition to or in lieu of the home-networking gateway sending the wireless configuration information in step 760 g.</p> <p>Alternatively, it would have been obvious to modify Meenan to perform the function of, after transmitting at least the second message containing the network configuration parameters, detecting an indication that the given playback device has successfully received the network configuration parameters based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1i.</p> |
| 1j | <p>after detecting the indication, transitioning from communicating with the given playback device via the initial communication path to communicating with the given playback device via the secure WLAN that is defined by the</p> | <p>Meenan discloses, after detecting the indication, transitioning from communicating with the given playback device via the initial communication path to communicating with the given playback device via the secure WLAN that is defined by the access point.</p> <p>Meenan at Fig. 1:</p> |

Claim

Meenan

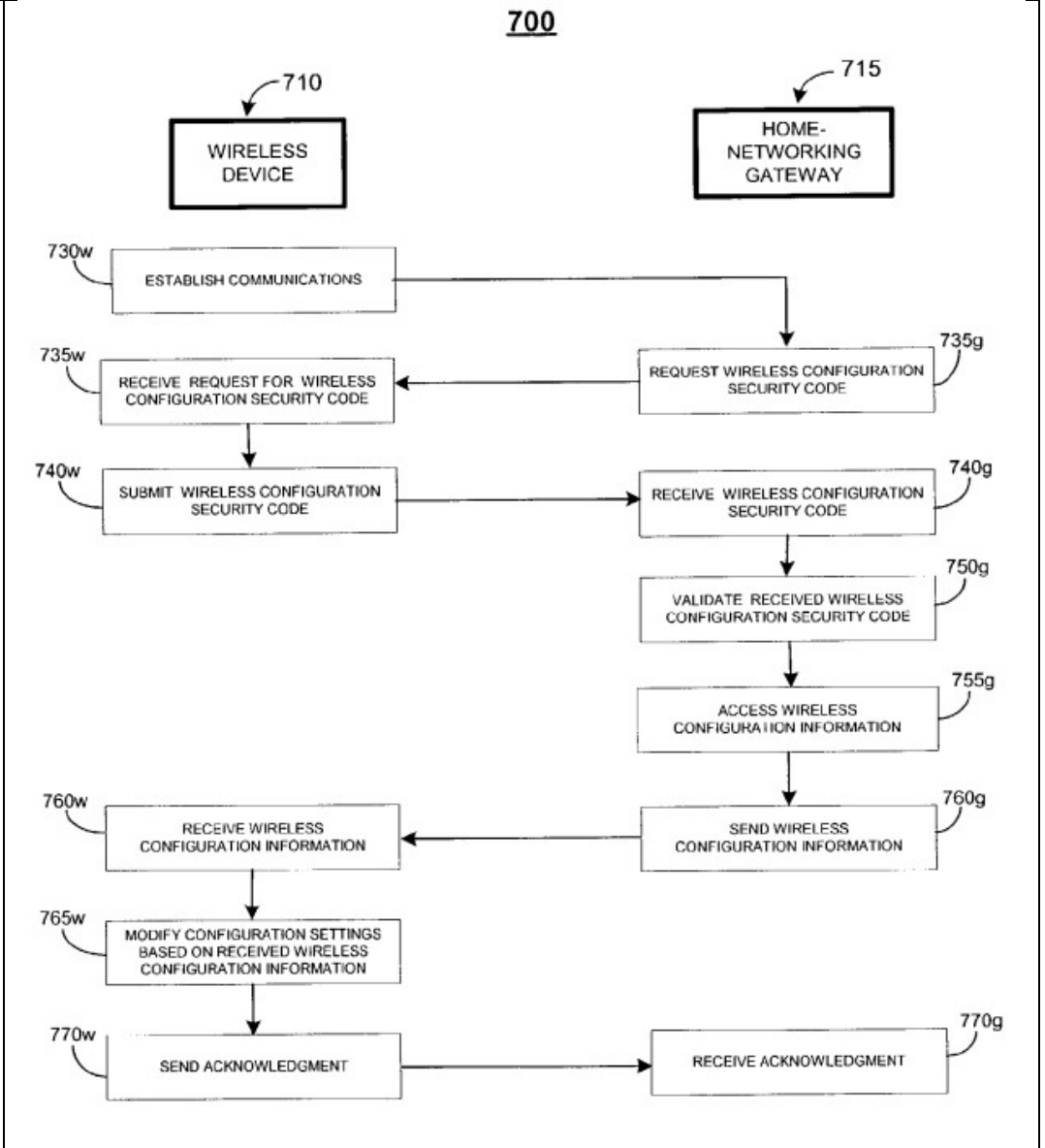
access point.



Meenan at Fig. at 7:

| <u>Claim</u> | <u>Meenan</u> |
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Meenan at 3:59-4:8:

Some of the other devices, such as a laptop computer 112 *f* and a PDA 112 *g*, typically communicate with the home-networking gateway 115 using a wireless access point 112 *h*. When devices communicate using wireless access point 112 *h*, they may be referred to as wireless devices. Wireless devices are not limited to portable devices. For example, a desktop personal computer, such as a personal computer with a Windows™ OS 112 *a* or a Macintosh™ personal computer 112 *b*, may communicate using wireless access point 112 *h*. Specifically, the wireless devices communicate over a wireless communications pathway to the wireless access point 112 *h*. The wireless access point 112 *h* is connected to home-networking gateway 115 through the wired network and

| <u>Claim</u> | <u>Meenan</u> |
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| | <p>transmits communications received from wireless devices to the home-networking gateway 115. In some implementations, the wireless access point 112 <i>h</i> may be a component of the home-networking gateway 115.</p> <p>Meenan at 4:9-32:</p> <p>A wireless communications pathway may use various protocols to communicate from a wireless devices to a wireless access point 112 <i>h</i>. For example, the wireless communications pathway may use wireless technology based on the Institute of Electrical and Electronics Engineers, Inc. (IEEE) 802.11 standard (such as 802.11b or 802.11a). The wireless communications pathway also may use wireless technology based on the Bluetooth approach for short range wireless communications, other personal area network (PAN) technologies, or other wireless technology, such as the HiperLan2 standard by the European Telecommunications Standards Institute (ETSI).</p> <p>Meenan at 8:23-32:</p> <p>In some implementations, the home-networking gateway 115 may perform as or include a wireless access point 112. Additionally or alternatively, the home-networking gateway 115 may communicate with devices using only a wireless communications pathway. In other implementations, the home-networking gateway 115 may communicate with devices using only a wired communications pathway. Additionally or alternatively, the home-networking gateway 115 may include one or more of a communications device 119 and/or one or more of devices 112.</p> <p>Meenan at 15:66-16:9</p> <p>The home-networking gateway and the wireless access point establish communications using a protocol known to both devices. For example, UPnp (“Universal Plug and Play”) may be used. When a wire is plugged into the wireless access point, the wireless access point may announce its presence by sending a message over the wire. The home-networking gateway may receive the message and detect the wireless access point based on the received message. The home-networking gateway may send to the wireless access point a reply message announcing the presence of the home-networking gateway.</p> <p>Meenan at 19:65-20:11:</p> <p>The wireless device 710 sends to the home-networking gateway 715 an acknowledgment that the wireless configuration settings have been modified (step 770 <i>w</i>). The home-networking gateway 615 receives the acknowledgment (step 770 <i>g</i>). When the home-networking gateway 715 does not receive an acknowledgment, the home-networking gateway 715 may take one of several actions, such as re-sending the wireless configuration information to the wireless</p> |

| | <u>Claim</u> | <u>Meenan</u> |
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device 710 or sending an electronic mail message to a user account to notify the user that an acknowledgment was not received. In some implementations, the wireless device 710 may pull information from the home-networking gateway 715 in addition to or in lieu of the home-networking gateway sending the wireless configuration information in step 760 g.

Alternatively, it would have been obvious to modify Meenan to perform the function of, after detecting the indication, transitioning from communicating with the given playback device via the initial communication path to communicating with the given playback device via the secure WLAN that is defined by the access point based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 1j.

3 The computing device of claim 1, wherein the given playback device comprises a first playback device of a new networked audio system.

Meenan discloses that the given playback device comprises a first playback device of a new networked audio system.

Meenan at Fig. 1:

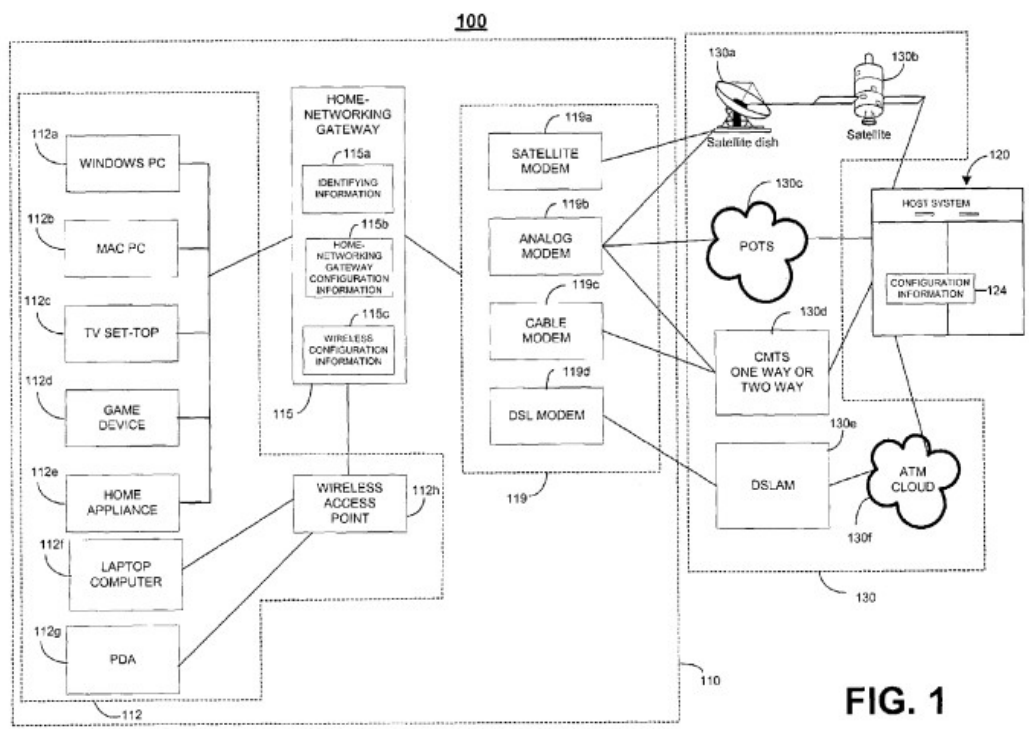


FIG. 1

Meenan at 3:28-42:

The devices 112 may include one or more general-purpose computers (e.g., personal computers), one or more special-purpose computers (e.g., devices specifically programmed to communicate with the home-networking gateway 115 and/or the host system 120), or a combination of one or more

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>general-purpose computers and one or more special-purpose computers. Other examples of devices 112 include a workstation, a server, an appliance (e.g., a refrigerator, a microwave, and an oven), an intelligent household device (e.g., a thermostat, a security system, a heating, ventilation and air conditioning (HVAC) system, and a stereo system), a device, a component, other physical or virtual equipment, or some combination of these elements capable of responding to and executing instructions within the system architecture.</p> <p>Meenan at 15:66-16:9</p> <p>The home-networking gateway and the wireless access point establish communications using a protocol known to both devices. For example, UPnp (“Universal Plug and Play”) may be used. When a wire is plugged into the wireless access point, the wireless access point may announce its presence by sending a message over the wire. The home-networking gateway may receive the message and detect the wireless access point based on the received message. The home-networking gateway may send to the wireless access point a reply message announcing the presence of the home-networking gateway.</p> <p>Alternatively, it would have been obvious to modify Meenan to provide that the given playback device comprises a first playback device of a new networked audio system based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 3.</p> |
| 5 | The computing device of claim 1, wherein communicating with the given playback device via the secure WLAN comprises transmitting a command to the given playback device related to playback of audio content. | <p>Meenan discloses that communicating with the given playback device via the secure WLAN comprises transmitting a command to the given playback device related to playback of audio content.</p> <p>Meenan at Fig. 1:</p> |

Claim

Meenan

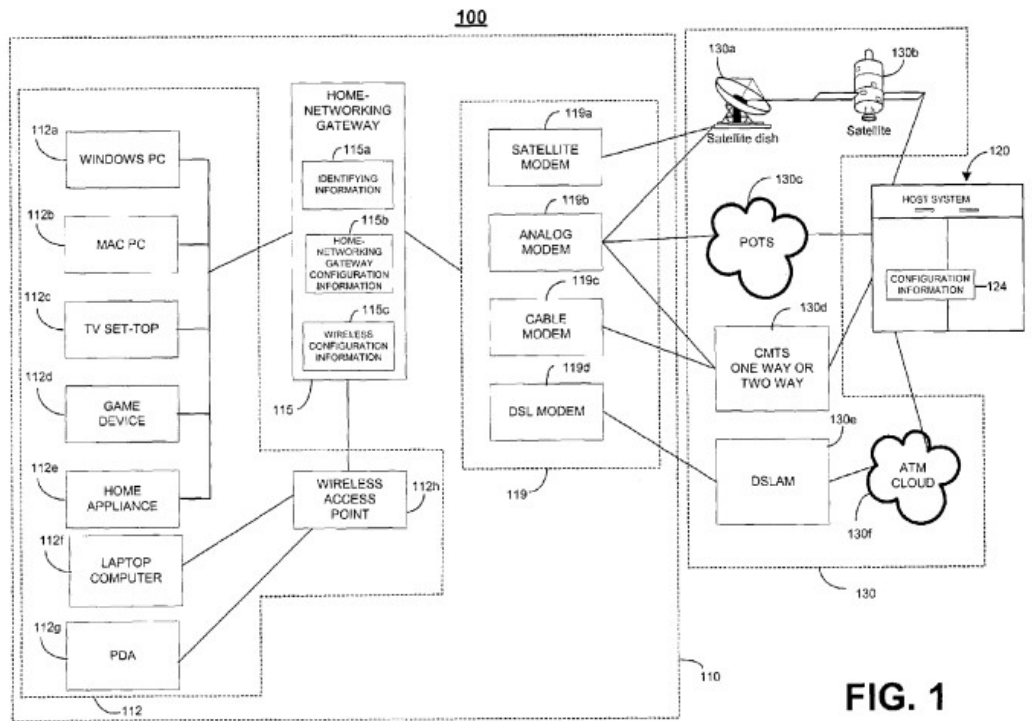


FIG. 1

Meenan at 3:28-42:

The devices 112 may include one or more general-purpose computers (e.g., personal computers), one or more special-purpose computers (e.g., devices specifically programmed to communicate with the home-networking gateway 115 and/or the host system 120), or a combination of one or more general-purpose computers and one or more special-purpose computers. Other examples of devices 112 include a workstation, a server, an appliance (e.g., a refrigerator, a microwave, and an oven), an intelligent household device (e.g., a thermostat, a security system, a heating, ventilation and air conditioning (HVAC) system, and a stereo system), a device, a component, other physical or virtual equipment, or some combination of these elements capable of responding to and executing instructions within the system architecture.

Meenan at 15:29-53:

The process 500 begins when a home-networking gateway receives and stores wireless configuration information (step 510). Wireless configuration information may include a security key and a network name, as described previously with respect to wireless configuration information 115 c of FIG. 1. Reception and storage of configuration information may occur during the manufacturing or distribution process of the home-networking gateway. For example, the home-networking gateway may be pre-configured with wireless configuration information at a factory or distribution point. Alternatively or

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>additionally, the home-networking gateway may receive the wireless configuration information by accessing storage media (including magnetic, optical or solid state storage media) or any type of storage device (including a drive, a microdrive, a compact disc (CD), a recordable CD, a rewriteable CD, a flash memory, or a solid-state floppy disk card) that stores the wireless configuration information. The home-networking gateway also may receive the wireless configuration information from a user interface of the home-networking gateway through which a user may enter wireless configuration information to be stored by the home-networking gateway. The home-networking gateway also may receive the wireless configuration information when the user configures another wireless device.</p> <p>Meenan at 15:66-16:9</p> <p>The home-networking gateway and the wireless access point establish communications using a protocol known to both devices. For example, UPnp (“Universal Plug and Play”) may be used. When a wire is plugged into the wireless access point, the wireless access point may announce its presence by sending a message over the wire. The home-networking gateway may receive the message and detect the wireless access point based on the received message. The home-networking gateway may send to the wireless access point a reply message announcing the presence of the home-networking gateway.</p> <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p><i>See also claim 1f and 1h, supra.</i></p> <p>Alternatively, it would have been obvious to modify Meenan to provide that communicating with the given playback device via the secure WLAN comprises transmitting a command to the given playback device related to playback of audio content based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 5.</p> |
| 6 | The computing device of claim 5, wherein the command comprises a command to | <p>Meenan discloses that the command comprises a command to retrieve audio content for playback from an audio source that is accessible via a communication path that includes the secure WLAN.</p> <p>Meenan at Fig. 1:</p> |

Claim

retrieve audio content for playback from an audio source that is accessible via a communication path that includes the secure WLAN.

Meenan

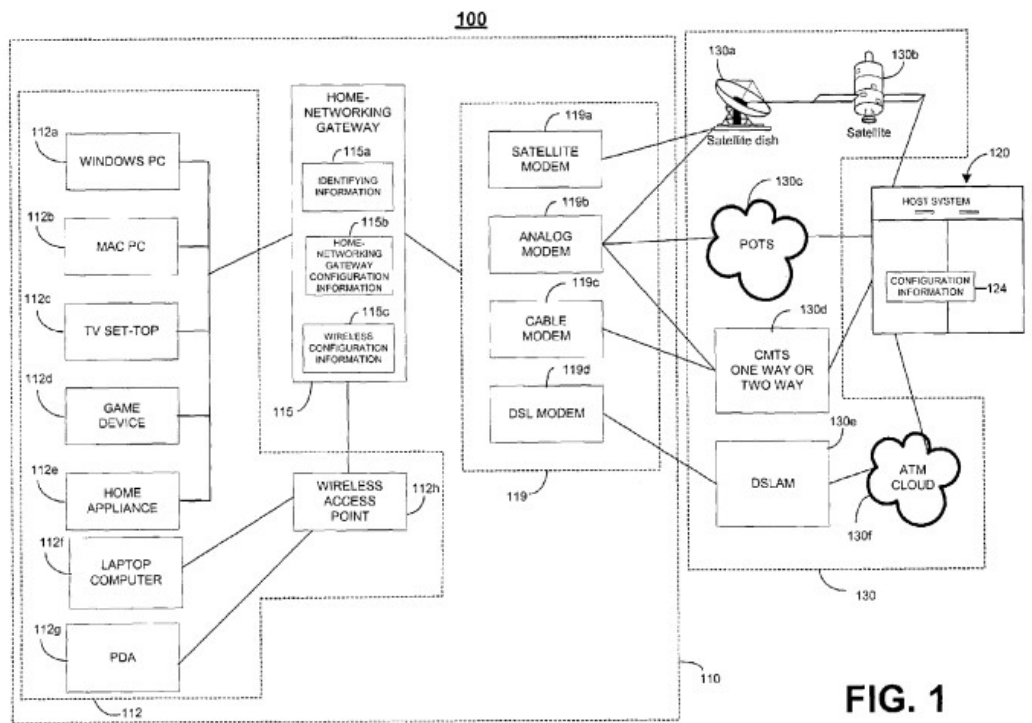


FIG. 1

Meenan at 3:28-42:

The devices 112 may include one or more general-purpose computers (e.g., personal computers), one or more special-purpose computers (e.g., devices specifically programmed to communicate with the home-networking gateway 115 and/or the host system 120), or a combination of one or more general-purpose computers and one or more special-purpose computers. Other examples of devices 112 include a workstation, a server, an appliance (e.g., a refrigerator, a microwave, and an oven), an intelligent household device (e.g., a thermostat, a security system, a heating, ventilation and air conditioning (HVAC) system, and a stereo system), a device, a component, other physical or virtual equipment, or some combination of these elements capable of responding to and executing instructions within the system architecture.

Meenan at 15:29-53:

The process 500 begins when a home-networking gateway receives and stores wireless configuration information (step 510). Wireless configuration information may include a security key and a network name, as described previously with respect to wireless configuration information 115 c of FIG. 1. Reception and storage of configuration information may occur during the manufacturing or distribution process of the home-networking gateway. For example, the home-networking gateway may be pre-configured with wireless configuration information at a factory or distribution point. Alternatively or

| <u>Claim</u> | | <u>Meenan</u> |
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| | | <p>additionally, the home-networking gateway may receive the wireless configuration information by accessing storage media (including magnetic, optical or solid state storage media) or any type of storage device (including a drive, a microdrive, a compact disc (CD), a recordable CD, a rewriteable CD, a flash memory, or a solid-state floppy disk card) that stores the wireless configuration information. The home-networking gateway also may receive the wireless configuration information from a user interface of the home-networking gateway through which a user may enter wireless configuration information to be stored by the home-networking gateway. The home-networking gateway also may receive the wireless configuration information when the user configures another wireless device.</p> <p>Meenan at 15:66-16:9</p> <p>The home-networking gateway and the wireless access point establish communications using a protocol known to both devices. For example, UPnp (“Universal Plug and Play”) may be used. When a wire is plugged into the wireless access point, the wireless access point may announce its presence by sending a message over the wire. The home-networking gateway may receive the message and detect the wireless access point based on the received message. The home-networking gateway may send to the wireless access point a reply message announcing the presence of the home-networking gateway.</p> <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p><i>See also</i> claim 1f and 1h, <i>supra</i>.</p> <p>Alternatively, it would have been obvious to modify Meenan to provide that the command comprises a command to retrieve audio content for playback from an audio source that is accessible via a communication path that includes the secure WLAN based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 6.</p> |
| 12pre | The computing device of claim 1, further comprising program instructions | <i>See</i> claim 1f and 1h, <i>supra</i> . |

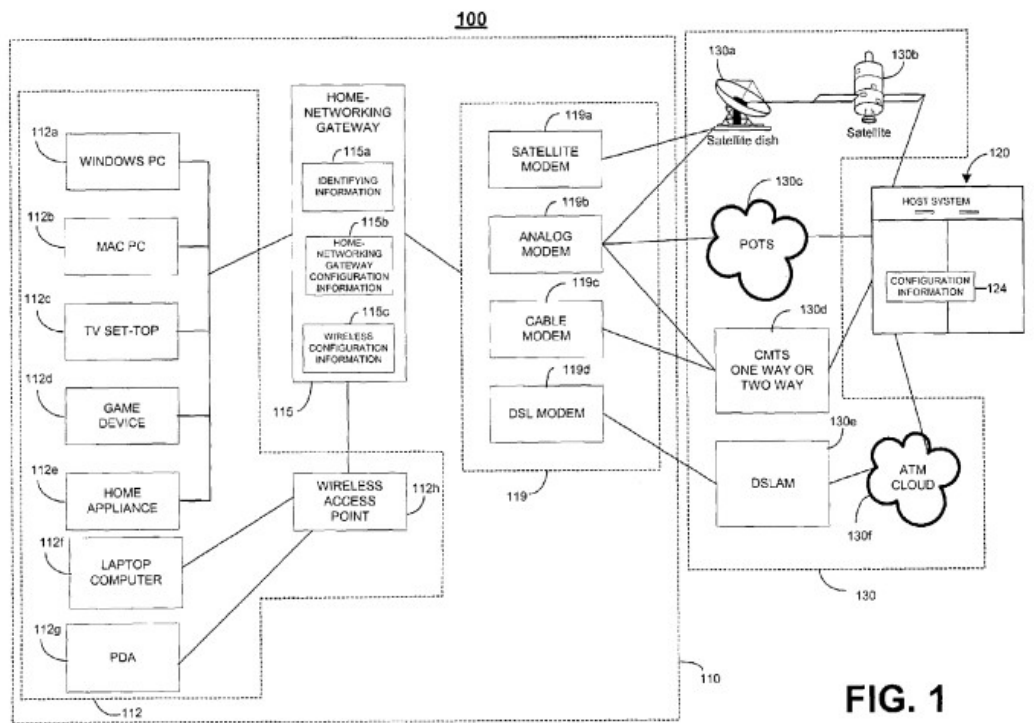
| <u>Claim</u> | <u>Meenan</u> |
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stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:

12a after transitioning to communicating with the given playback device via the secure WLAN, transmitting a command to the given playback device to form a group with at least a first playback device of a networked audio system such that the given playback device is configured to play back audio content in synchrony with at least the first playback device.

Meenan discloses, after transitioning to communicating with the given playback device via the secure WLAN, transmitting a command to the given playback device to form a group with at least a first playback device of a networked audio system such that the given playback device is configured to play back audio content in synchrony with at least the first playback device.

Meenan at Fig. 1:



Meenan at 3:28-42:
The devices 112 may include one or more general-purpose computers (e.g.,

| <u>Claim</u> | <u>Meenan</u> |
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| | <p>personal computers), one or more special-purpose computers (e.g., devices specifically programmed to communicate with the home-networking gateway 115 and/or the host system 120), or a combination of one or more general-purpose computers and one or more special-purpose computers. Other examples of devices 112 include a workstation, a server, an appliance (e.g., a refrigerator, a microwave, and an oven), an intelligent household device (e.g., a thermostat, a security system, a heating, ventilation and air conditioning (HVAC) system, and a stereo system), a device, a component, other physical or virtual equipment, or some combination of these elements capable of responding to and executing instructions within the system architecture.</p> <p>Meenan at 15:29-53:</p> <p>The process 500 begins when a home-networking gateway receives and stores wireless configuration information (step 510). Wireless configuration information may include a security key and a network name, as described previously with respect to wireless configuration information 115 <i>c</i> of FIG. 1. Reception and storage of configuration information may occur during the manufacturing or distribution process of the home-networking gateway. For example, the home-networking gateway may be pre-configured with wireless configuration information at a factory or distribution point. Alternatively or additionally, the home-networking gateway may receive the wireless configuration information by accessing storage media (including magnetic, optical or solid state storage media) or any type of storage device (including a drive, a microdrive, a compact disc (CD), a recordable CD, a rewriteable CD, a flash memory, or a solid-state floppy disk card) that stores the wireless configuration information. The home-networking gateway also may receive the wireless configuration information from a user interface of the home-networking gateway through which a user may enter wireless configuration information to be stored by the home-networking gateway. The home-networking gateway also may receive the wireless configuration information when the user configures another wireless device.</p> <p>Meenan at 15:66-16:9</p> <p>The home-networking gateway and the wireless access point establish communications using a protocol known to both devices. For example, UPnp (“Universal Plug and Play”) may be used. When a wire is plugged into the wireless access point, the wireless access point may announce its presence by sending a message over the wire. The home-networking gateway may receive the message and detect the wireless access point based on the received message. The home-networking gateway may send to the wireless access point a reply message announcing the presence of the home-networking gateway.</p> |

| <u>Claim</u> | <u>Meenan</u> |
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| | <p>Meenan at 21:6-11:</p> <p>The techniques and concepts are applicable to home network devices other than a home-networking gateway. For example, a router, a digital hub, a general-purpose computer, or a single-purpose configuration management device may perform the functions described as being performed by the home-networking gateway.</p> <p><i>See also</i> claim 1f and 1h, <i>supra</i>.</p> <p>Alternatively, it would have been obvious to modify Meenan to perform the function of, after transitioning to communicating with the given playback device via the secure WLAN, transmitting a command to the given playback device to form a group with at least a first playback device of a networked audio system such that the given playback device is configured to play back audio content in synchrony with at least the first playback device based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 12a.</p> |