US 20170322687A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2017/0322687 A1

Lavian et al. (43) Pub. Date: Nov. 9, 2017

(54) SYSTEMS AND METHODS FOR ELECTRONIC COMMUNICATIONS

(71) Applicants: **Tal Lavian**, Sunnyvale, CA (US); **Zvi Or-Bach**, San Jose, CA (US)

(72) Inventors: **Tal Lavian**, Sunnyvale, CA (US); **Zvi Or-Bach**, San Jose, CA (US)

(21) Appl. No.: **15/600,773**

(22) Filed: **May 21, 2017**

Related U.S. Application Data

(63) Continuation-in-part of application No. 13/310,696, filed on Dec. 2, 2011, now Pat. No. 9,690,877, which is a continuation-in-part of application No. 13/245,804, filed on Sep. 26, 2011, now abandoned, which is a continuation-in-part of application No. 13/272,212, filed on Oct. 12, 2011, now abandoned, which is a continuation-in-part of application No. 13/273,187, filed on Oct. 13, 2011, now abandoned.

Publication Classification

(51) **Int. Cl.**

G06F 3/0482 (2013.01)

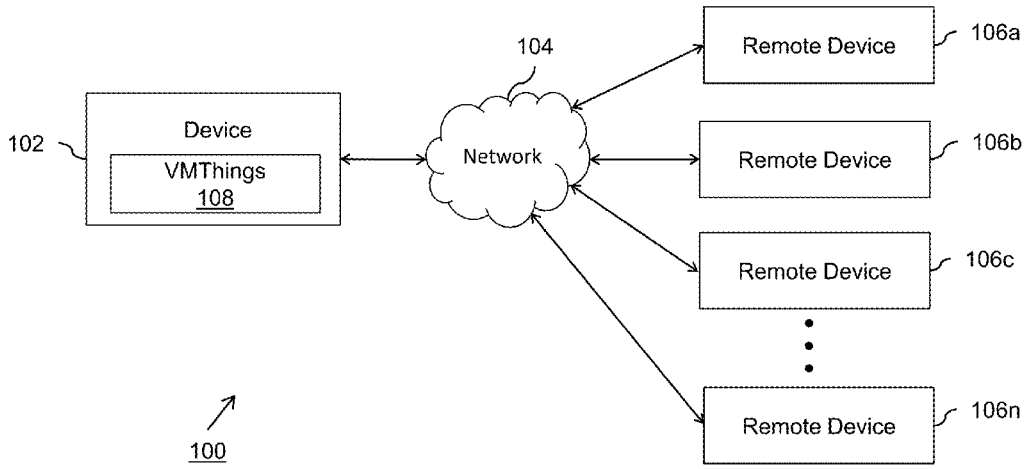
H04L 29/08 (2006.01)

(52) **U.S. Cl.**

CPC ***G06F 3/0482*** (2013.01); *H04L 67/12* (2013.01)

(57) **ABSTRACT**

Embodiments of the invention provide a system for enhancing user interaction with objects connected to a network. The system includes a processor, a display screen, a memory coupled to the processor. The memory comprises a database including a list of two or more objects and instructions executable by the processor to display a menu. The menu is associated with at least two independent objects. And the two independent objects are produced by two independent vendors.



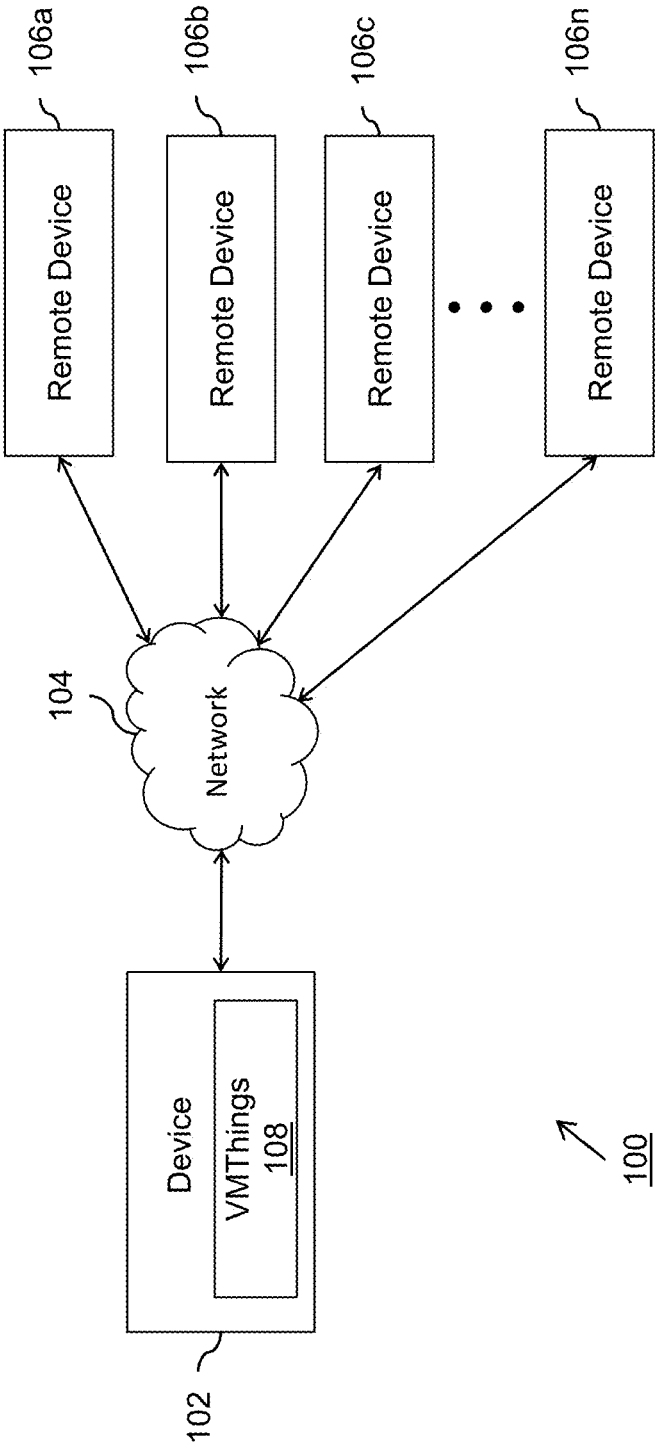

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
104
Network
Device
VMThings
108
102
100

FIG. 1A

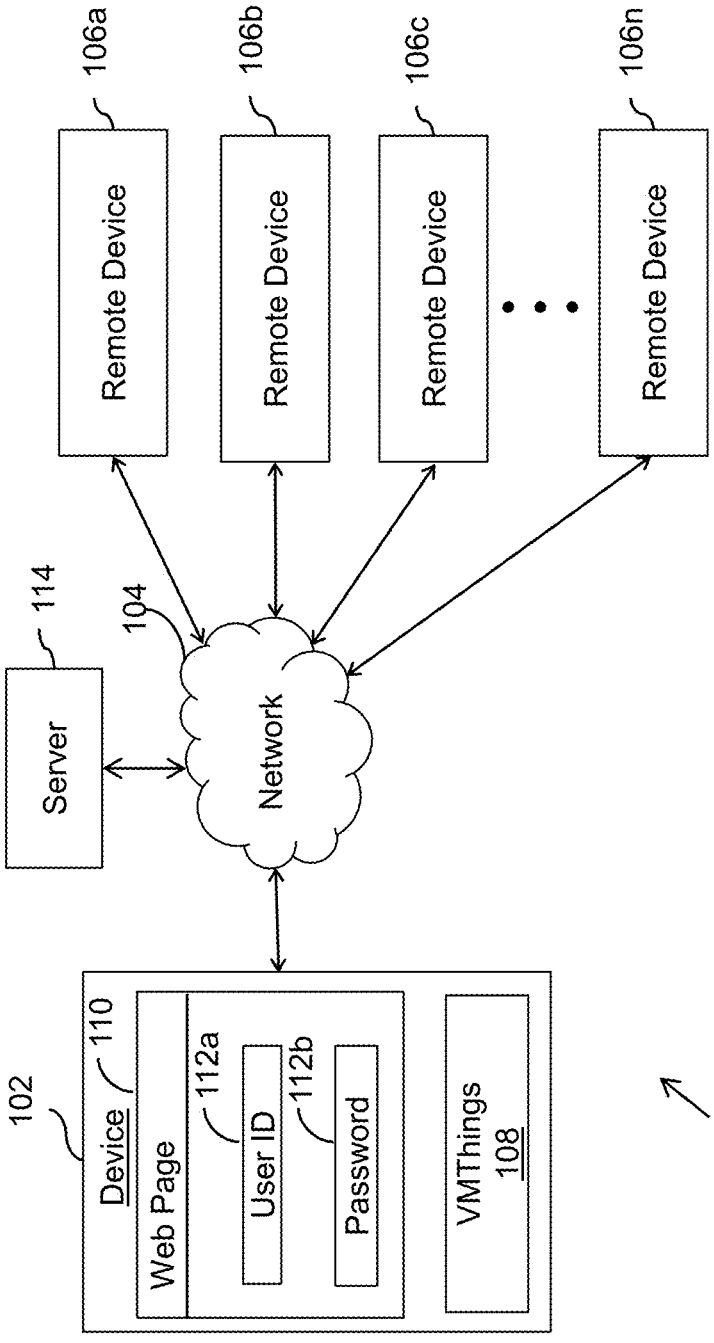

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
114
104
Server
Network
102
Device 110
Web Page
112a
User ID
112b
Password
VMThings 108
200

FIG. 1B

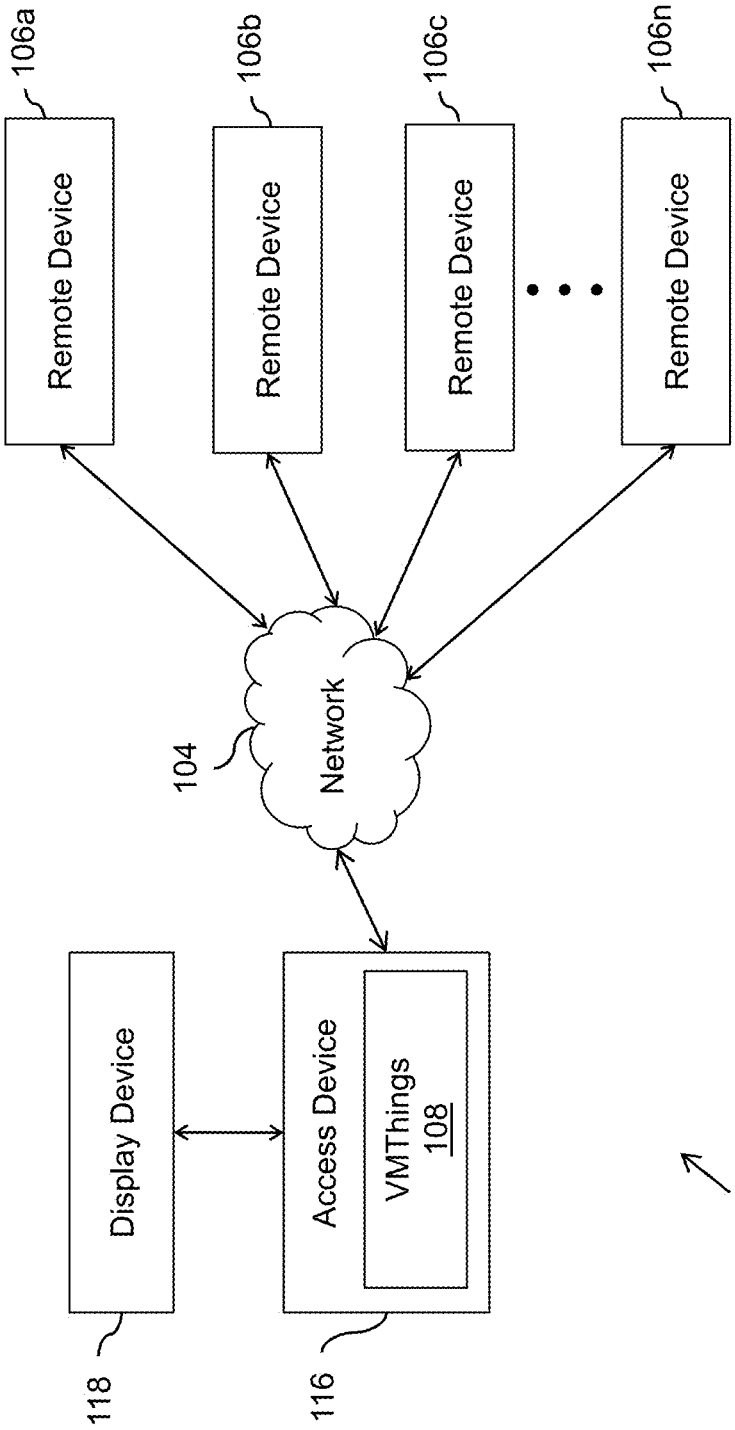

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
104
Network
Display Device
Access Device
VMThings
108
118
116
300

FIG. 1C

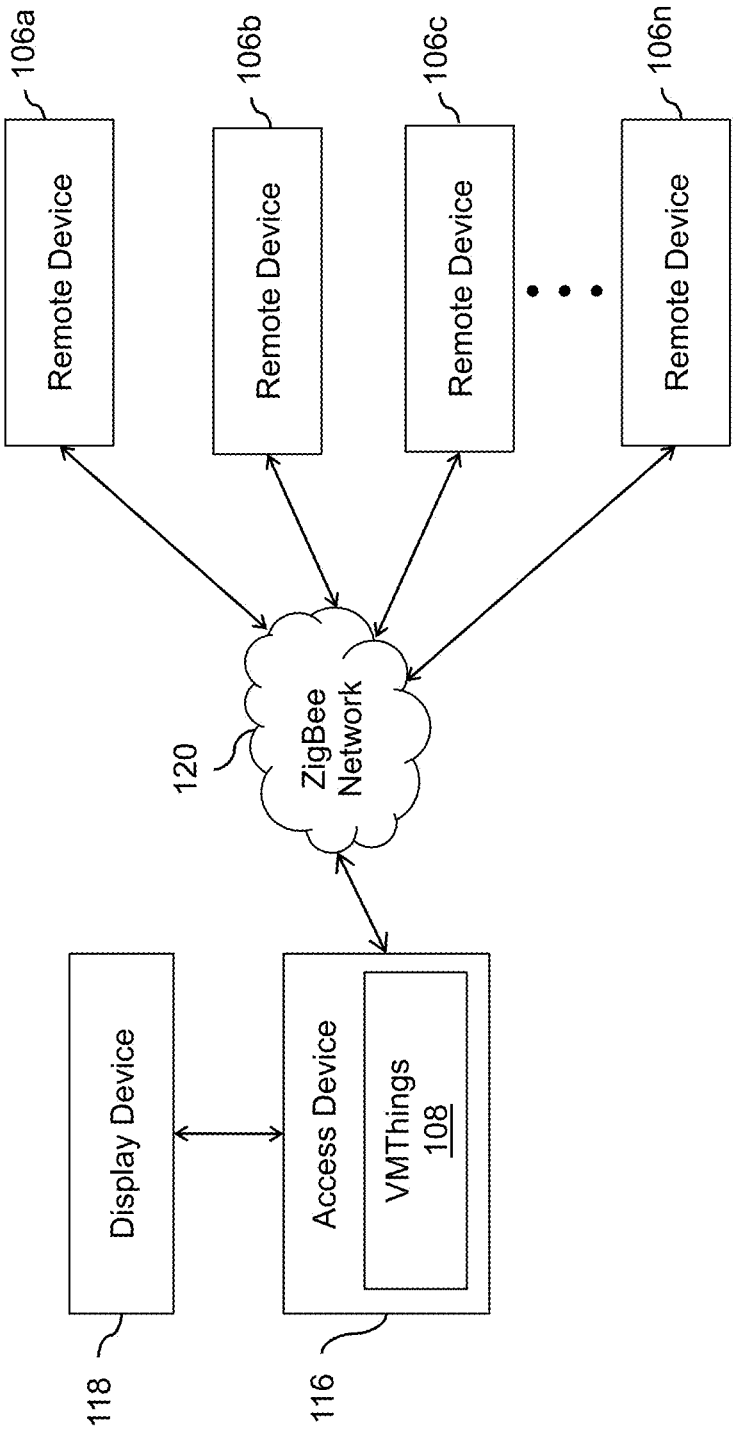

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
120
ZigBee Network
Display Device
Access Device
VMThings 108
118
116

FIG. 1D

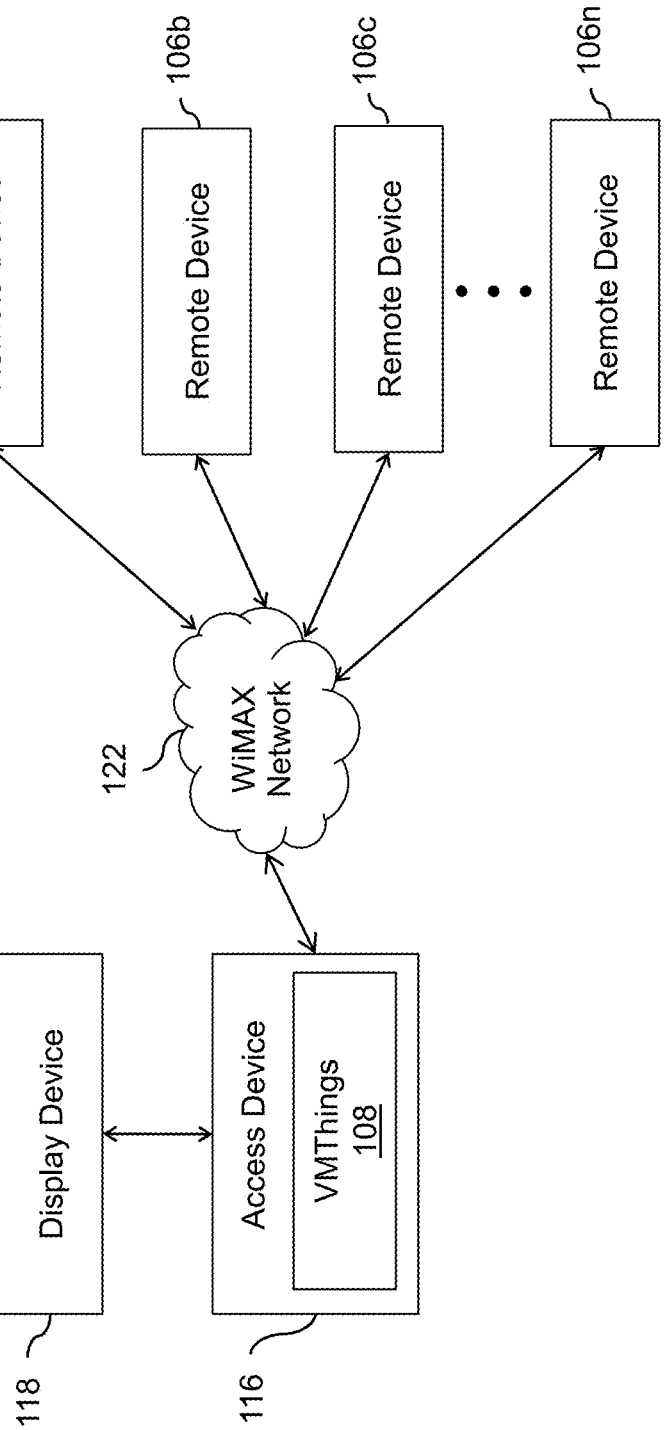

106a
Remote Device
106b
Remote Device
106c
Remote Device
106n
Remote Device
122
WiMAX Network
Display Device
Access Device
VMThings
108
118
116

FIG. 1E

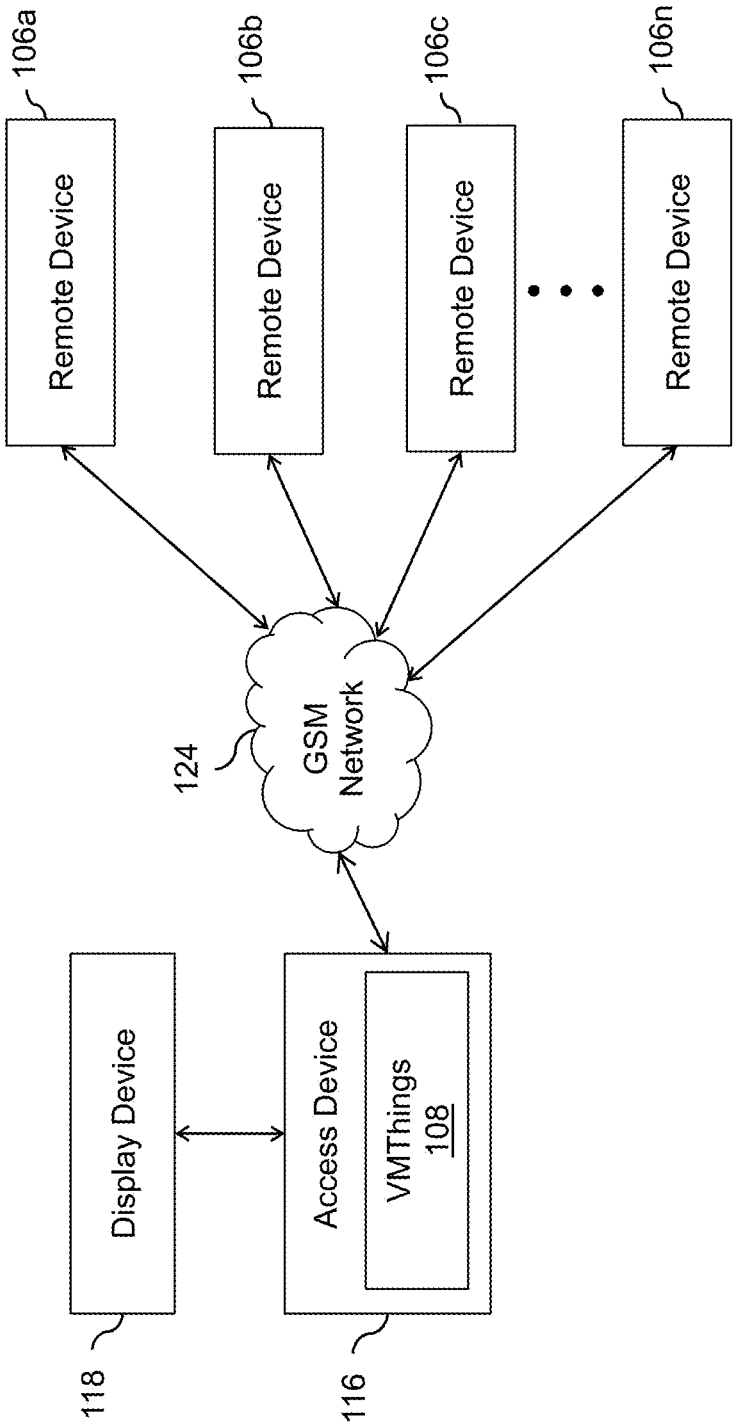

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
124
GSM Network
Display Device
Access Device
VMThings 108
118
116

FIG. 1F

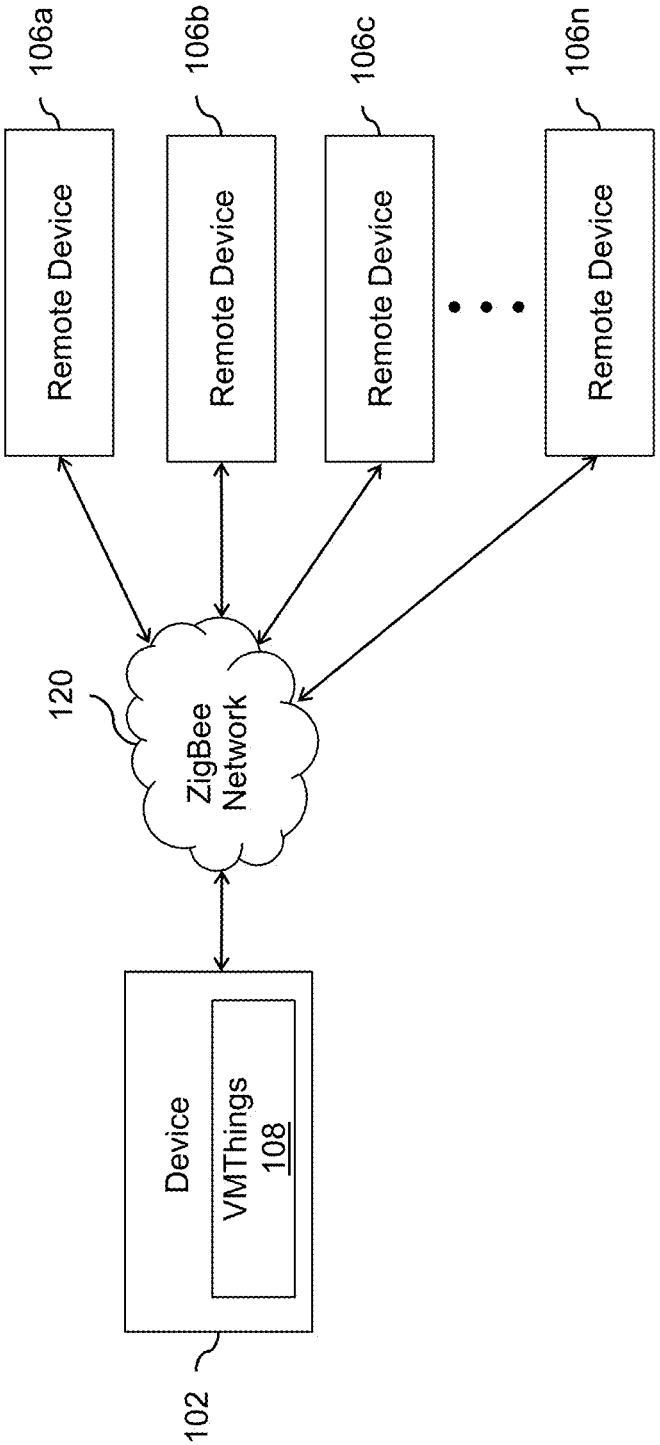

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
120
ZigBee Network
Device
VMThings 108
102

FIG. 1G

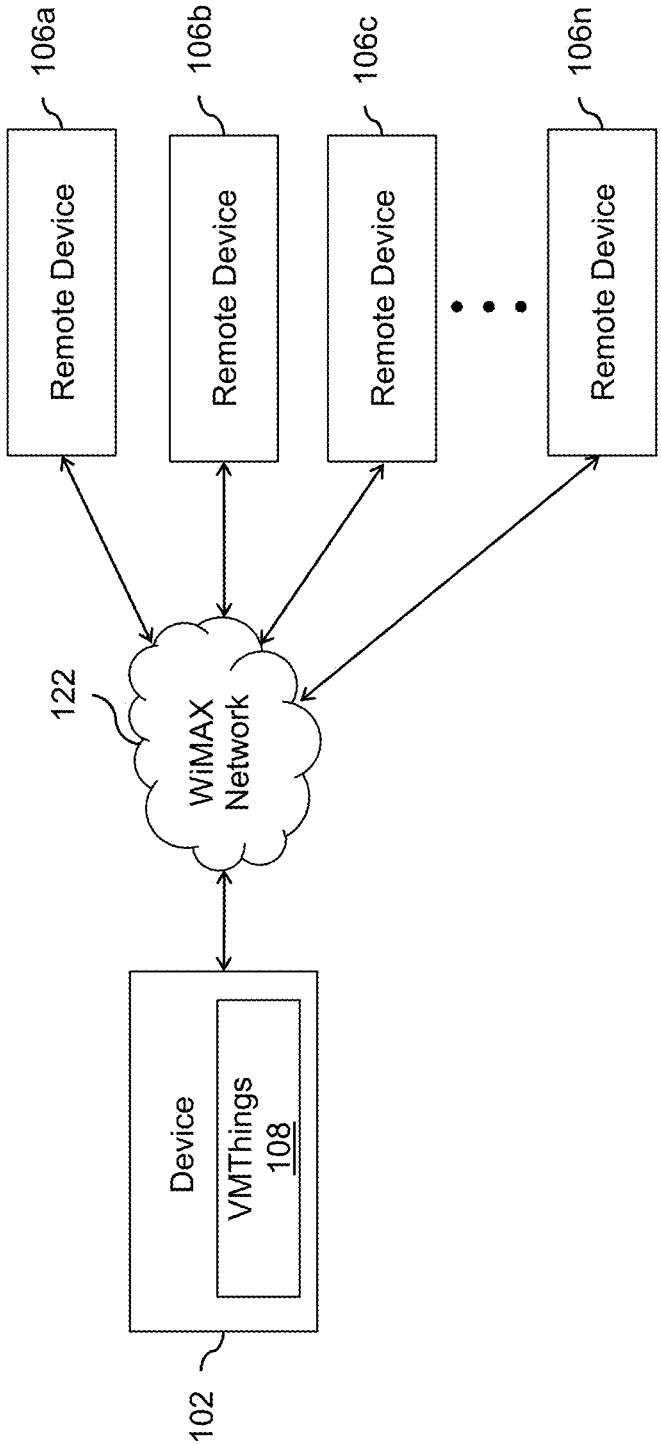

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
122
WiMAX Network
Device
VMThings 108
102

FIG. 1H

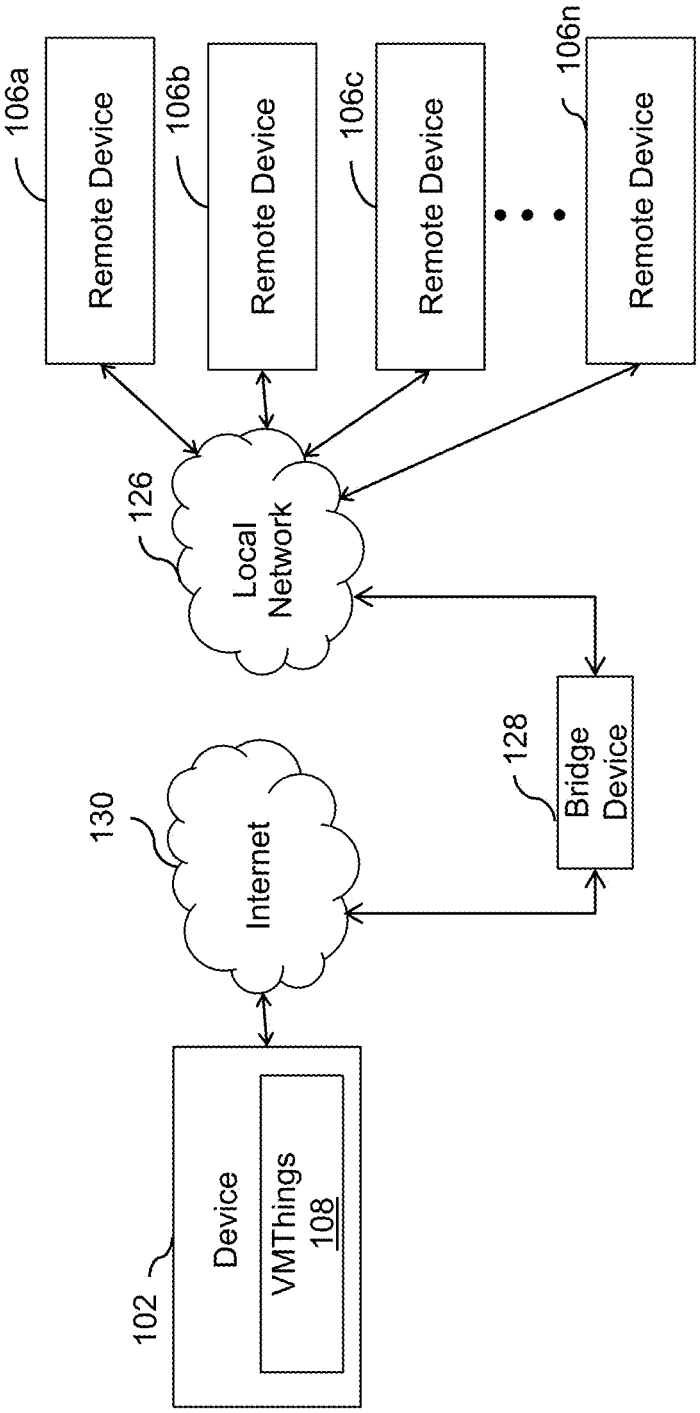

106a
Remote Device
106b
Remote Device
106c
Remote Device
106n
Remote Device
126
Local Network
128
Bridge Device
130
Internet
102
Device
VMThings
108

FIG. 1I

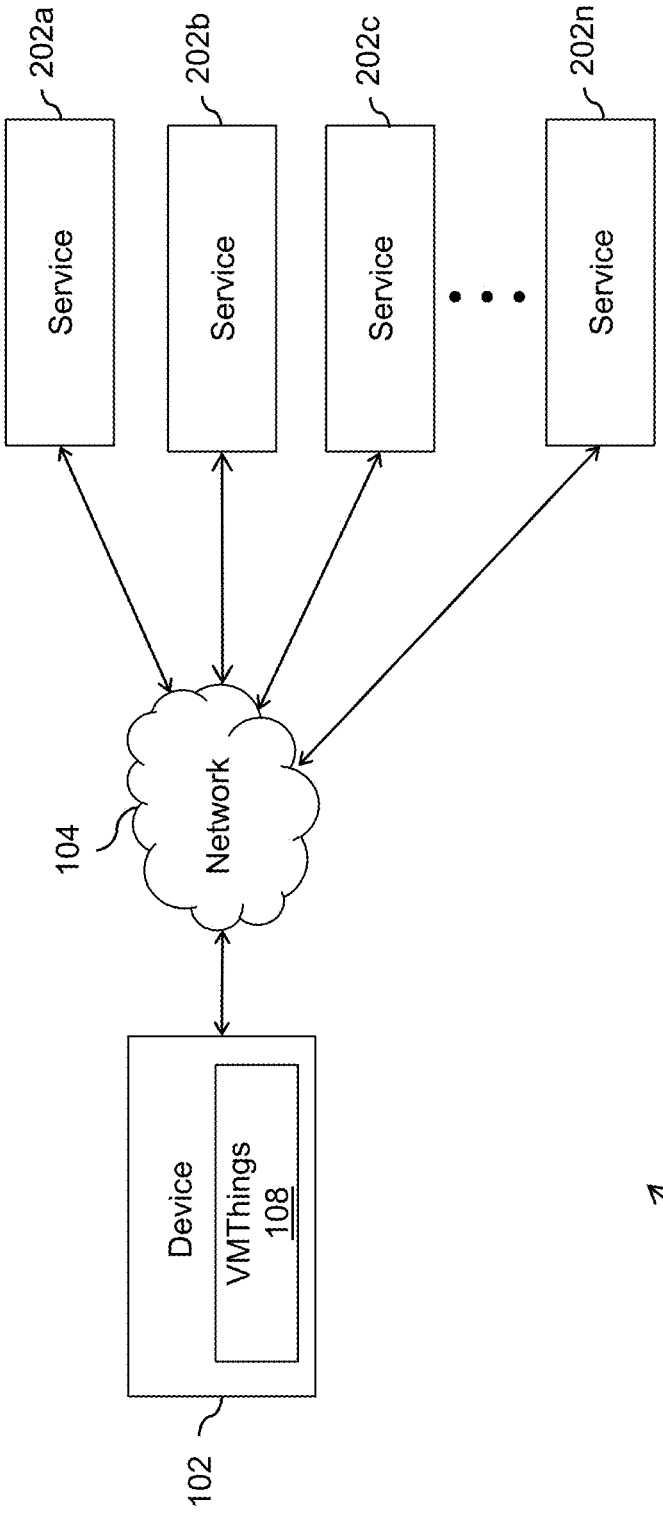

202a
202b
202c
202n
Service
Service
Service
Service
104
Network
Device
VMThings
108
102
400

FIG. 2A

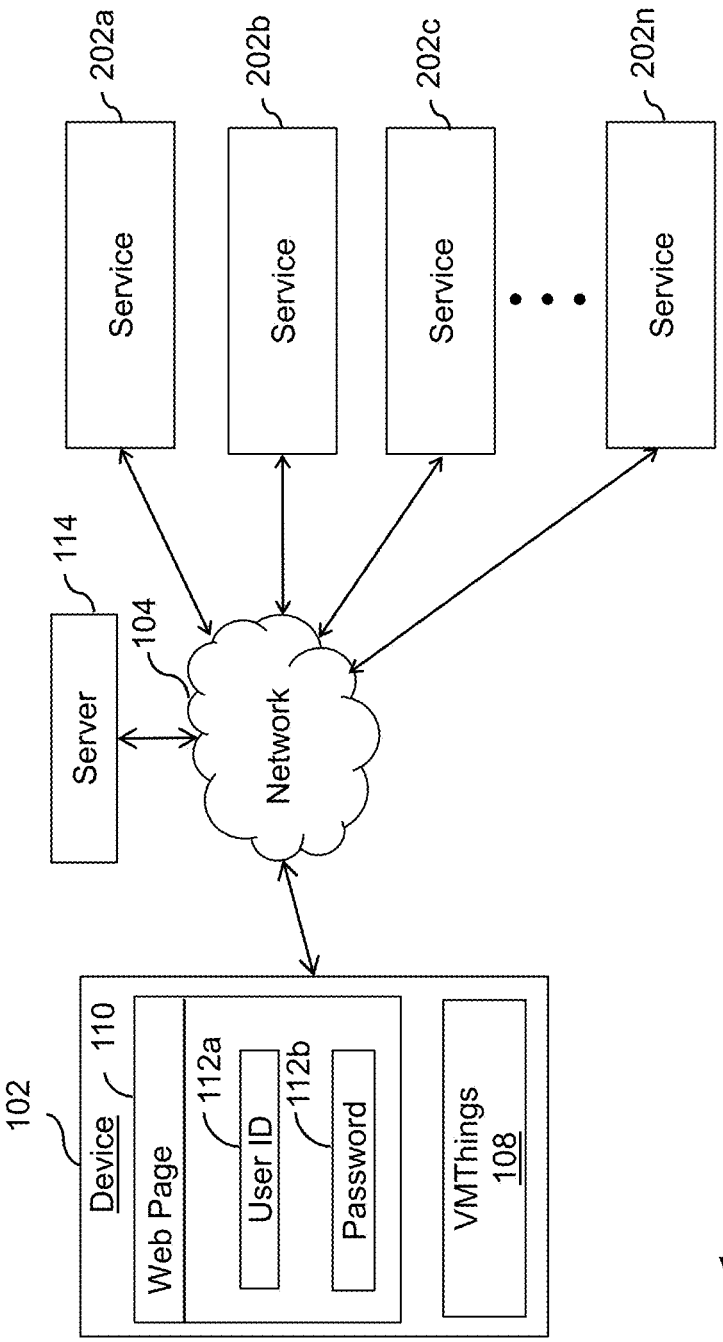

202a
202b
202c
202n
Service
Service
Service
Service
114
Server
104
Network
102
Device 110
Web Page
112a
User ID
112b
Password
VMThings 108
500

FIG. 2B

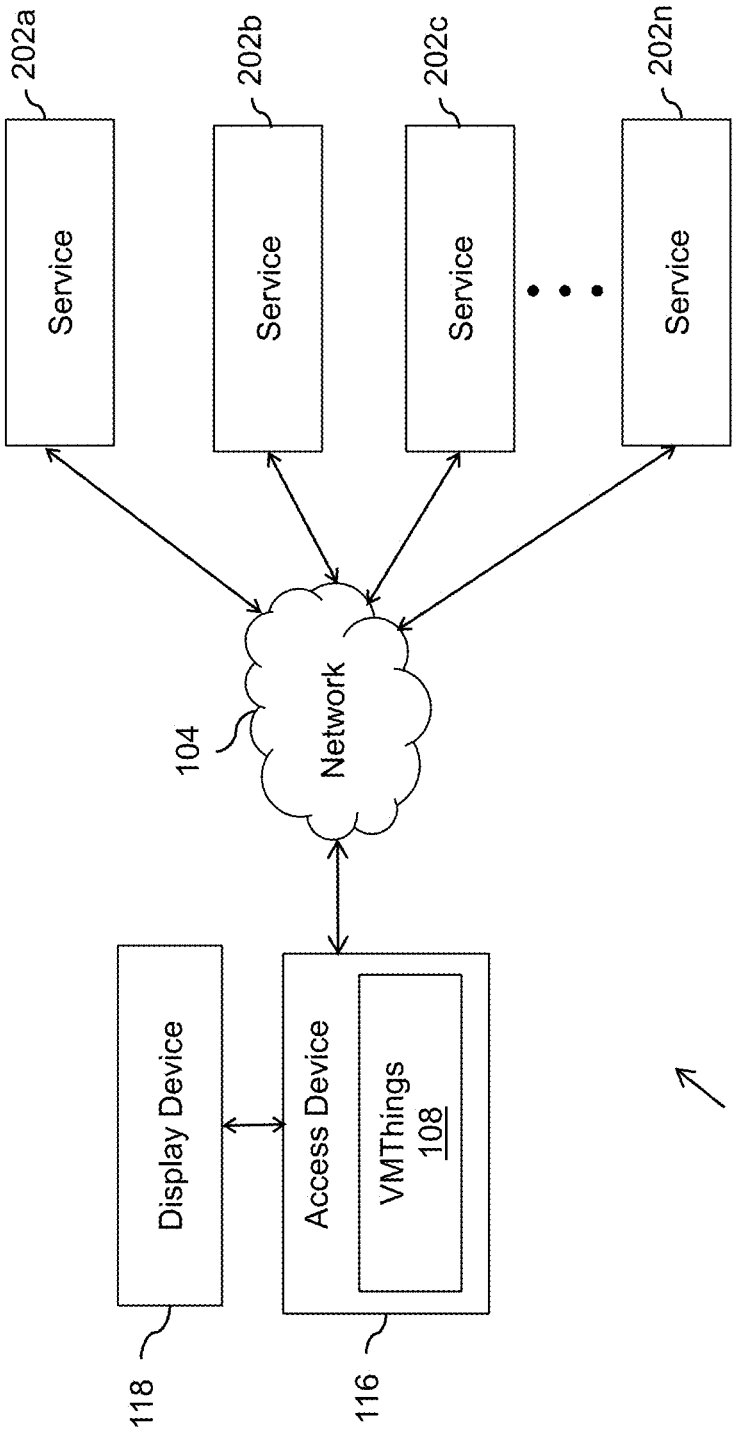

202a
202b
202c
202n
Service
Service
Service
Service
104
Network
Display Device
Access Device
VMThings
108
118
116
600

FIG. 2C

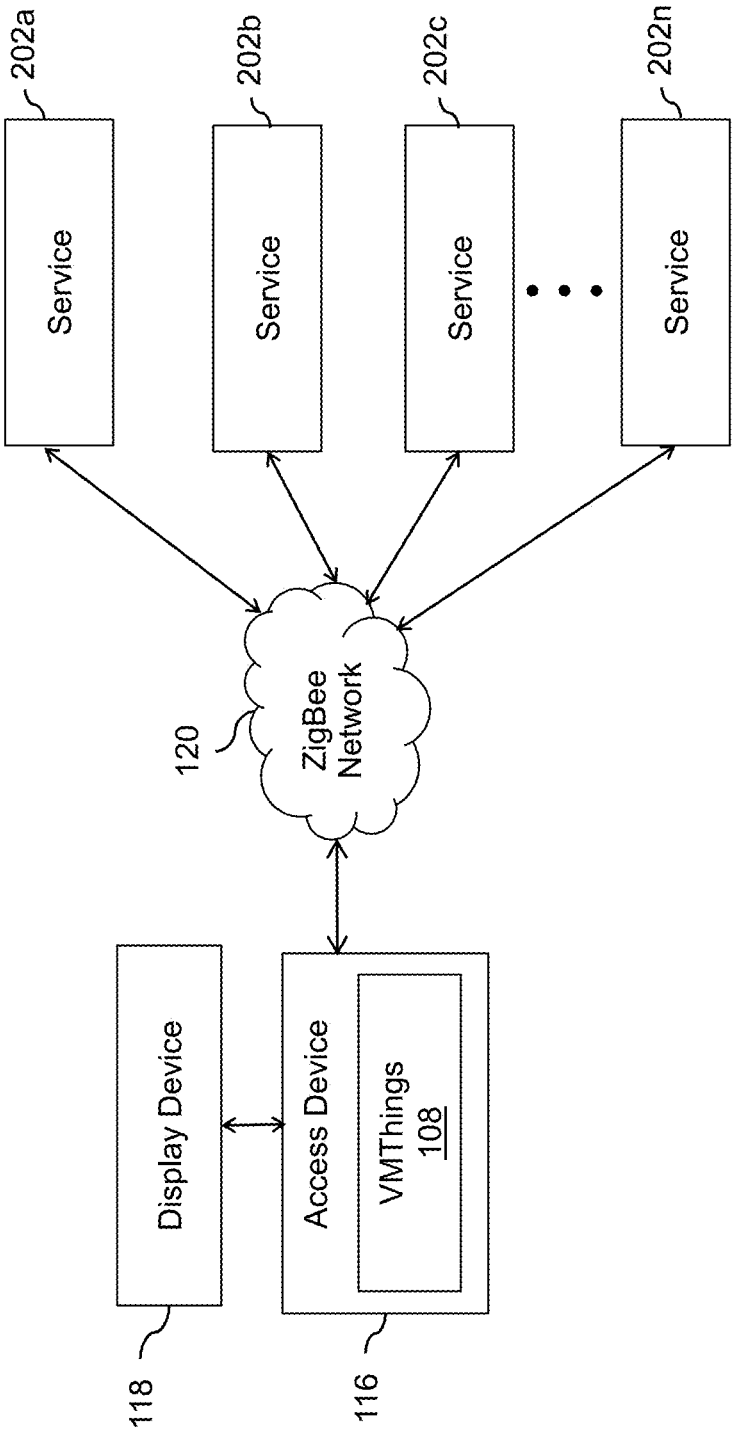

202a
202b
202c
202n
Service
Service
Service
Service
ZigBee Network
120
Display Device
Access Device
VMThings
108
118
116

FIG. 2D

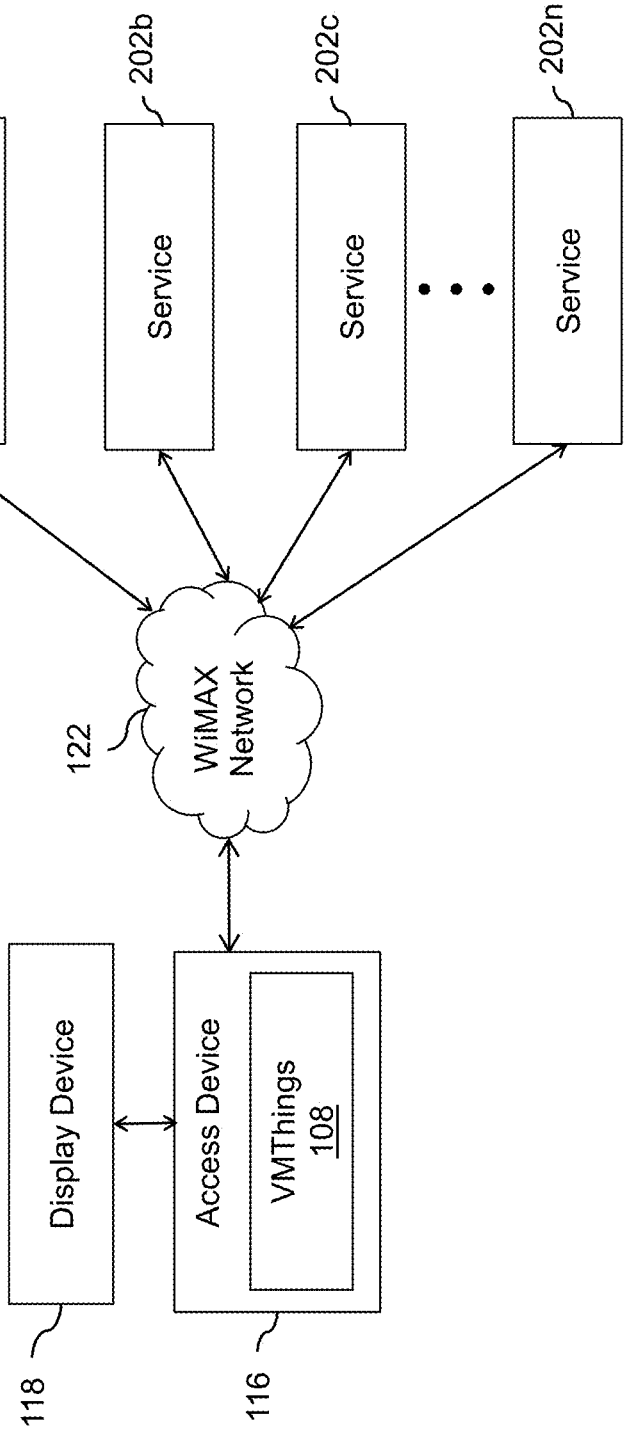

202a
202b
202c
202n
Service
Service
Service
Service
WiMAX Network
122
Display Device
Access Device
VMThings 108
118
116

FIG. 2E

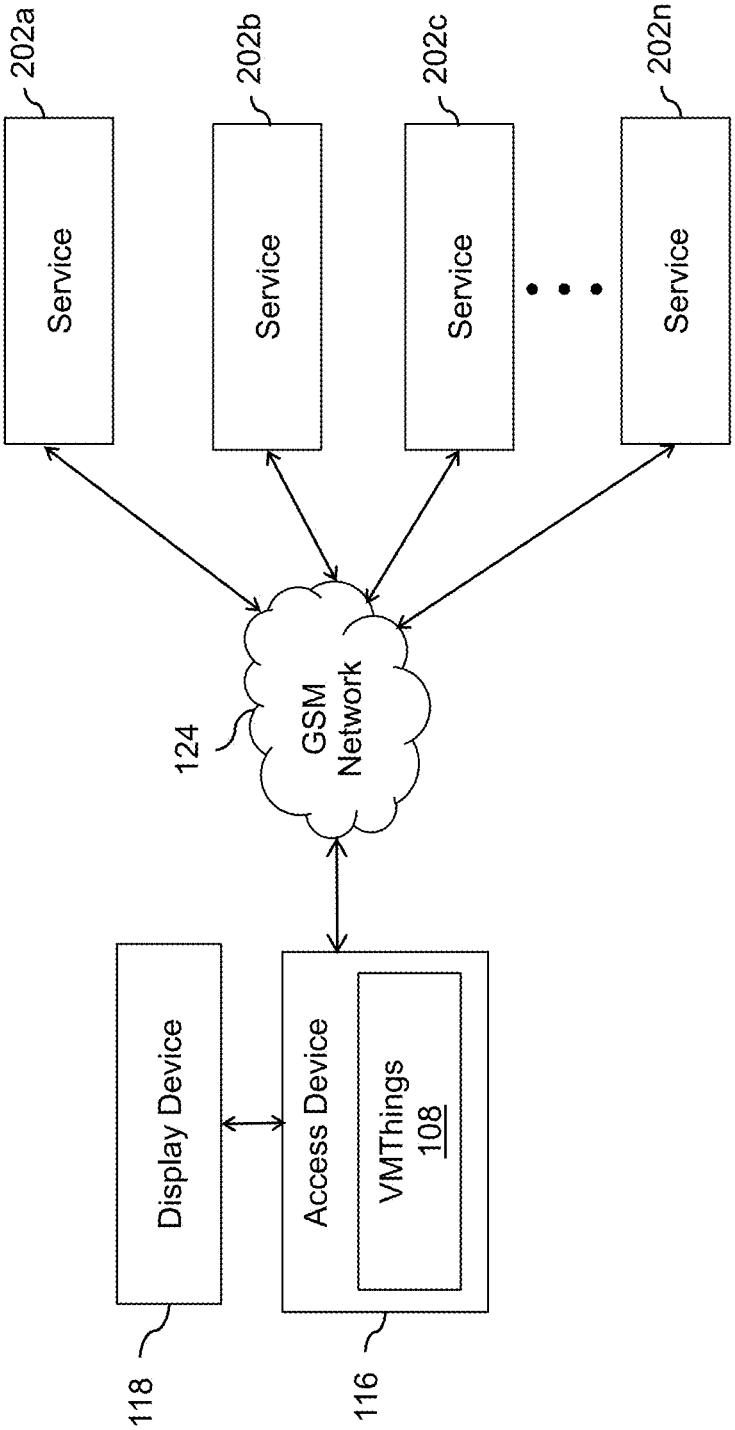

202a
202b
202c
202n
Service
Service
Service
Service
GSM Network
124
Display Device
Access Device
VMThings 108
118
116

FIG. 2F

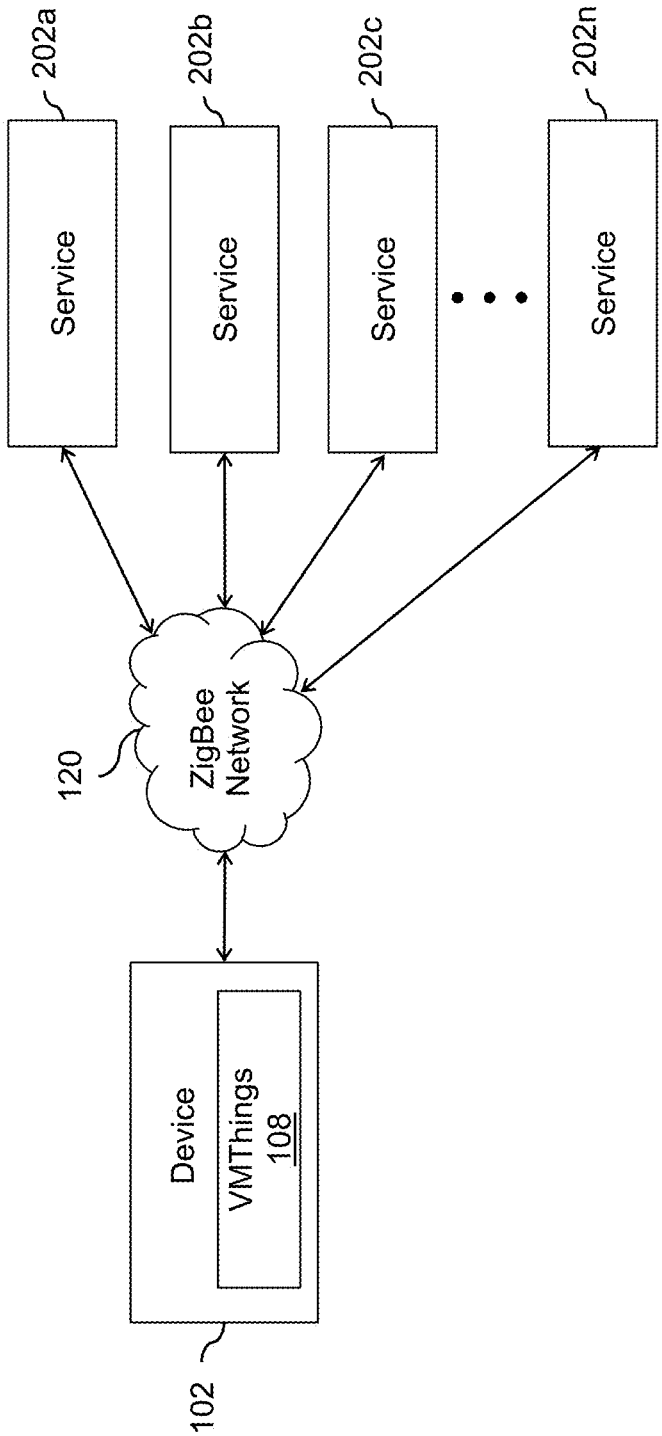

202a
202b
202c
202n
Service
Service
Service
Service
ZigBee Network
120
Device
VMThings
108
102

FIG. 2G

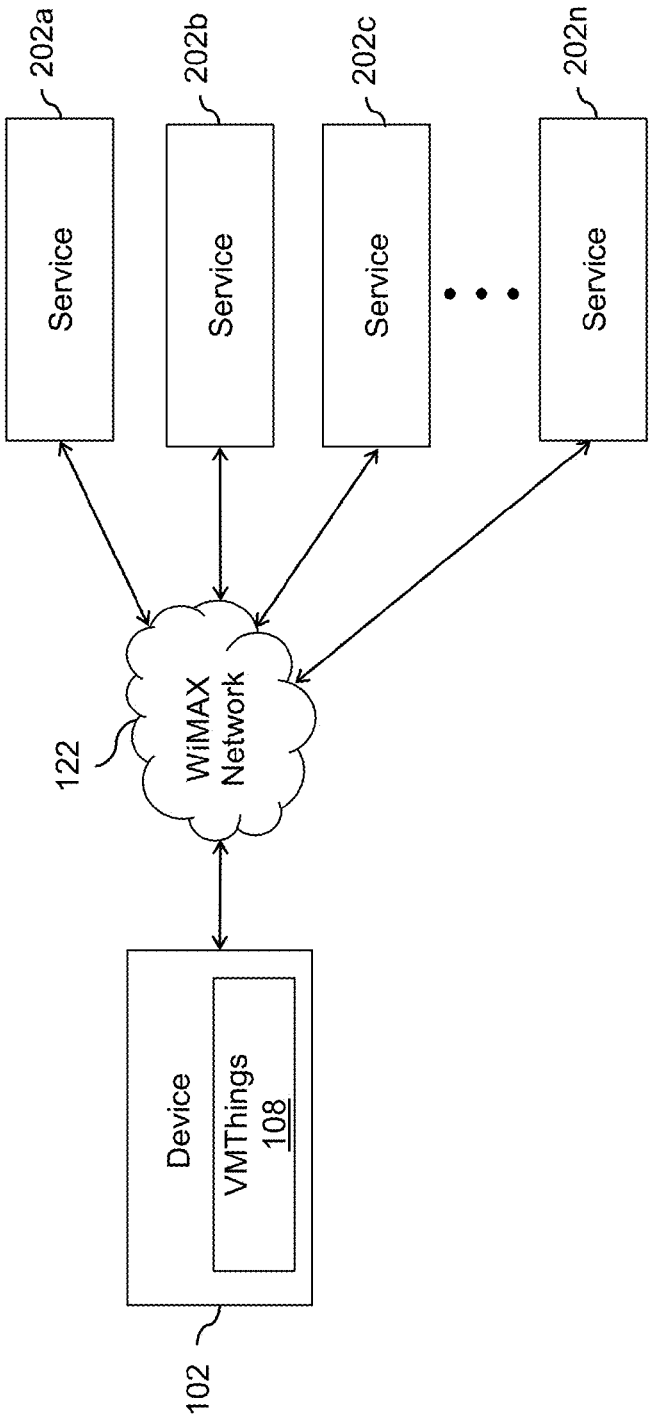

202a
202b
202c
202n
Service
Service
Service
Service
WiMAX Network
122
Device
VMThings 108
102

FIG. 2H

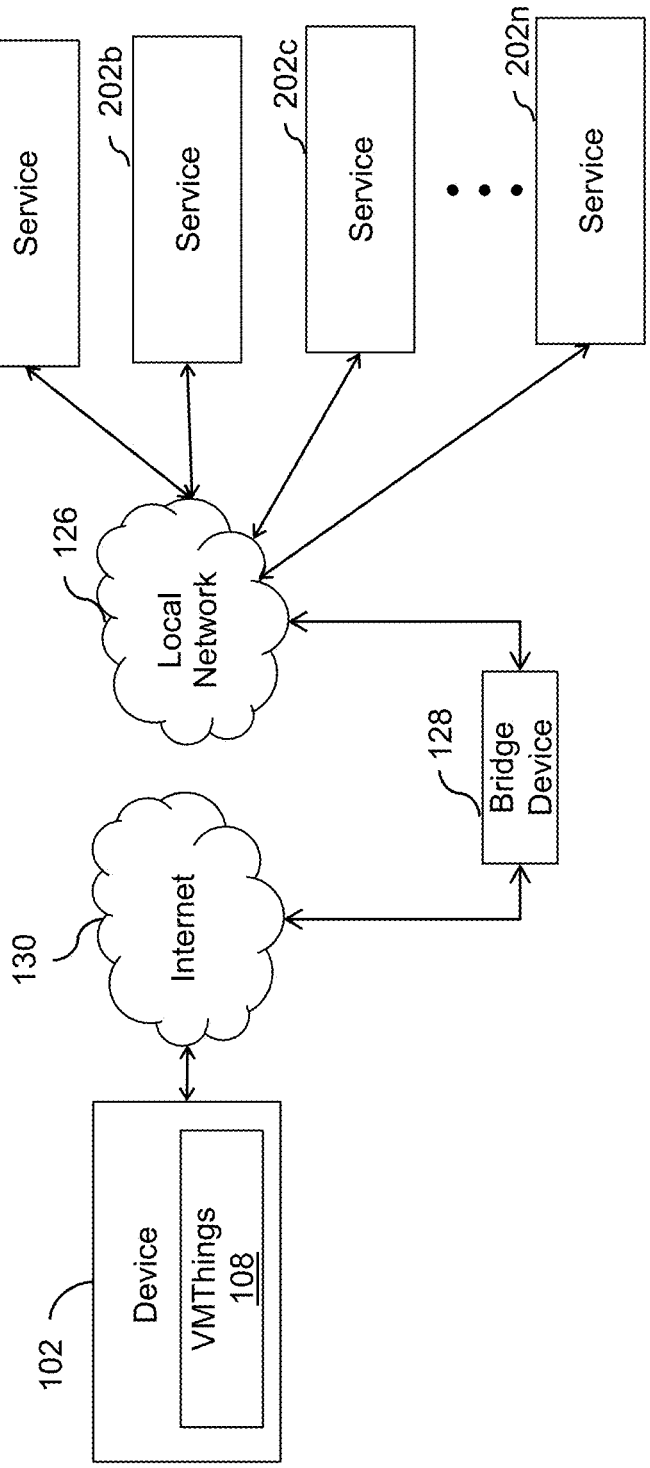

202a
Service
202b
Service
202c
Service
202n
Service
126
Local Network
128
Bridge Device
130
Internet
102
Device
VMThings 108

FIG. 2I

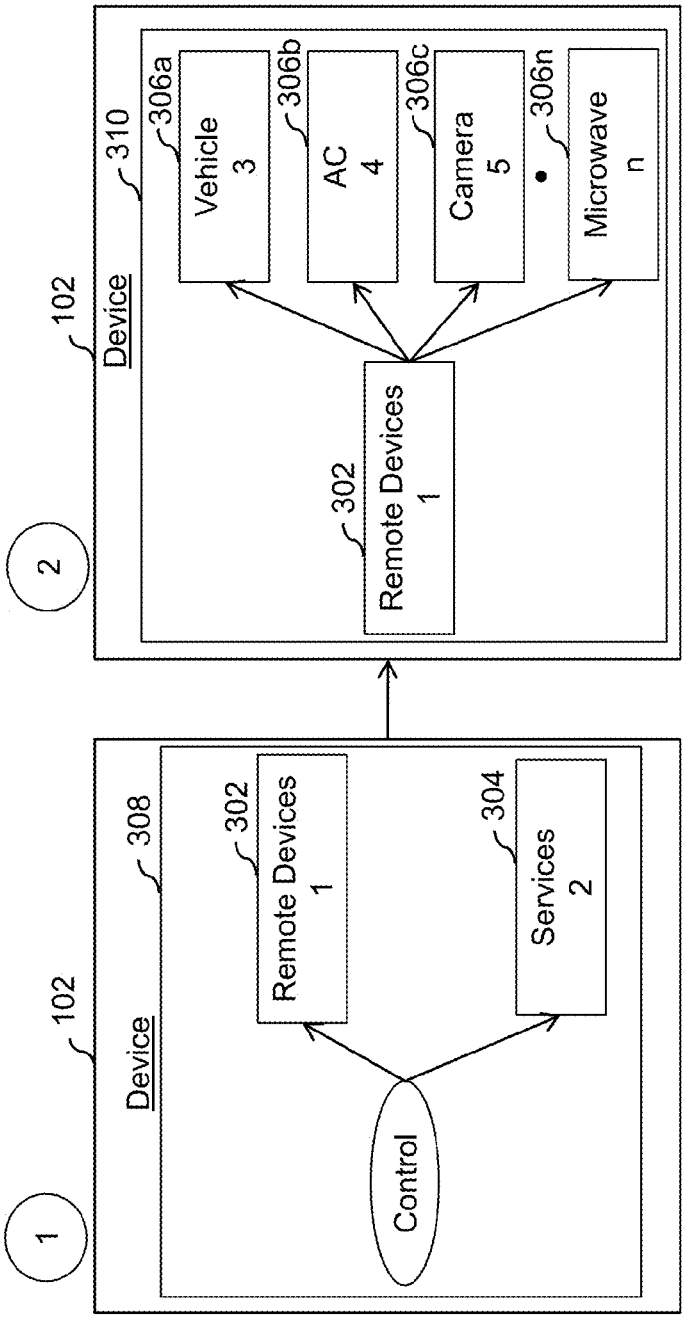

1
102
Device
308
302
Remote Devices
1
304
Services
2
Control
2
102
Device
310
306a
Vehicle
3
306b
AC
4
306c
Camera
5
306n
Microwave
n
302
Remote Devices
1

FIG. 3A

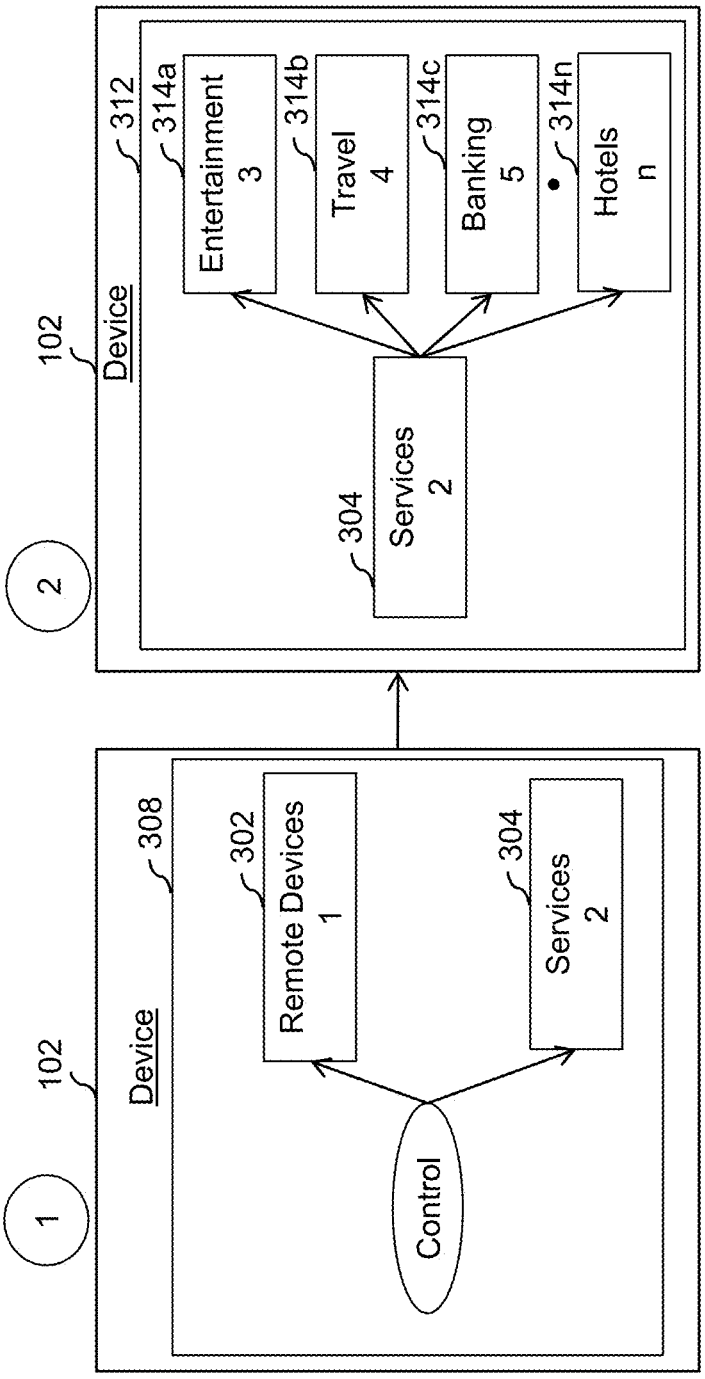

1
102
Device
308
302
Remote Devices
1
304
Services
2
Control
2
102
Device
312
314a
Entertainment
3
314b
Travel
4
314c
Banking
5
314n
Hotels
n
304
Services
2

FIG. 3B

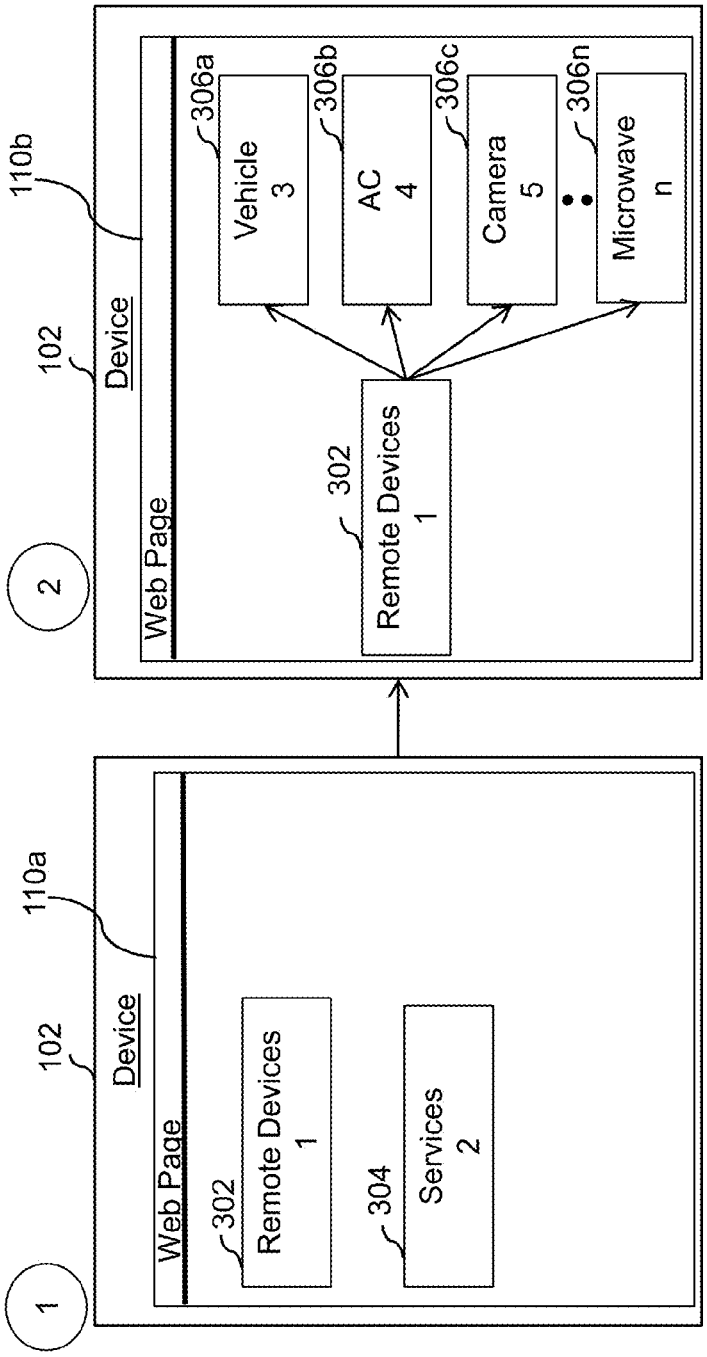

1
110a
102
Device
Web Page
302
Remote Devices
1
304
Services
2
2
110b
102
Device
Web Page
306a
Vehicle
3
306b
AC
4
306c
Camera
5
306n
Microwave
n
302
Remote Devices
1

FIG. 3C

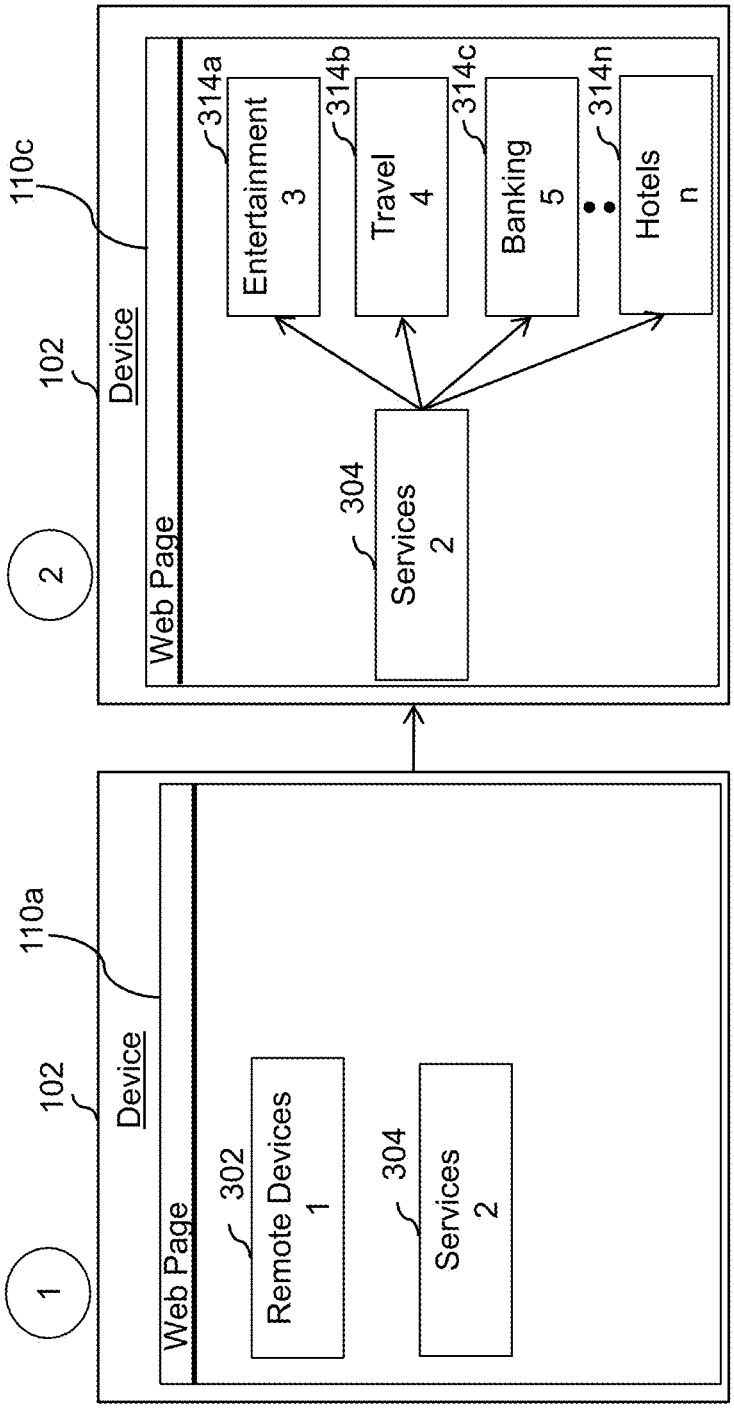

1
110a
102
Device
Web Page
302
Remote Devices
1
304
Services
2
2
110c
102
Device
Web Page
304
Services
2
314a
Entertainment
3
314b
Travel
4
314c
Banking
5
314n
Hotels
n

FIG. 3D

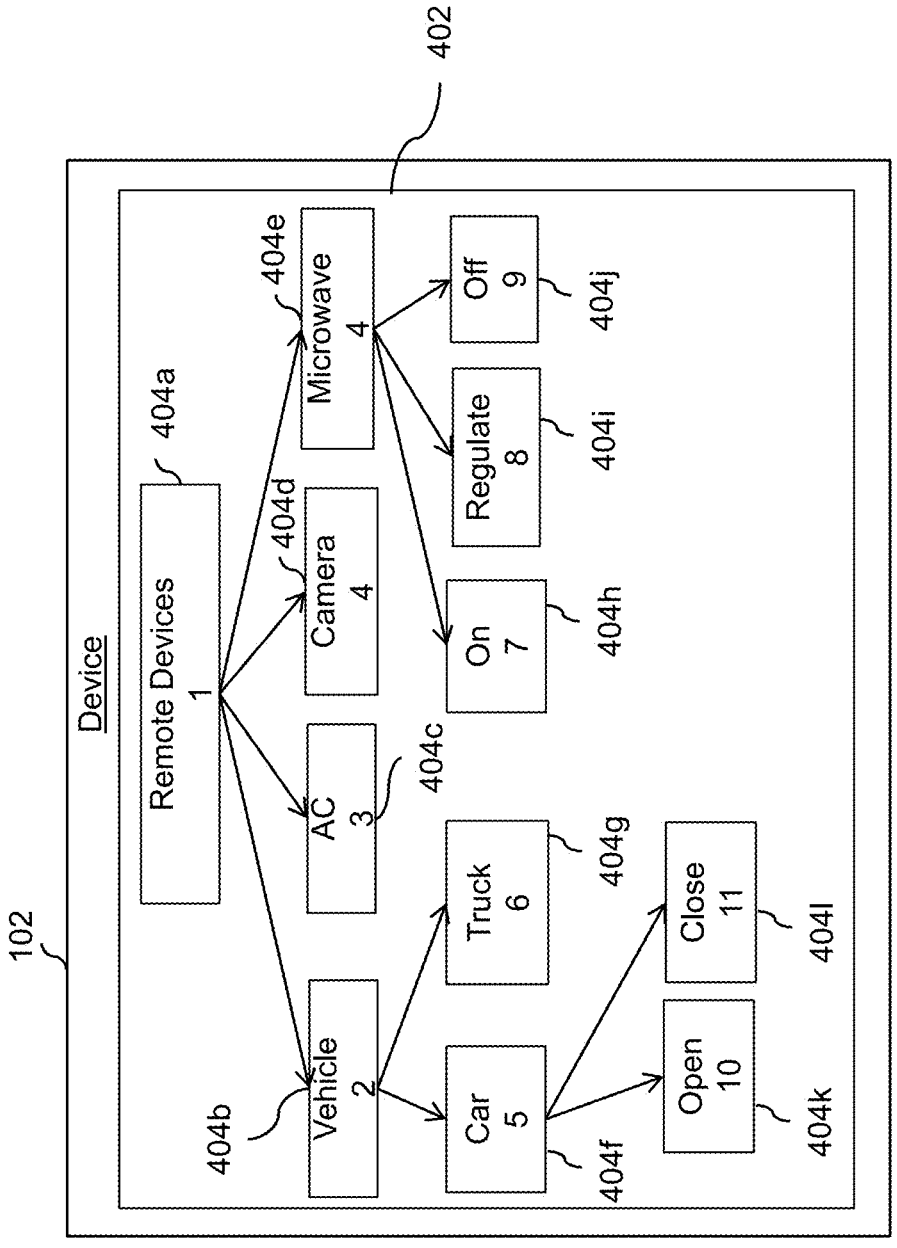

102
Device
402
Remote Devices 1
404a
Vehicle 2
404b
AC 3
404c
Camera 4
404d
Microwave 4
404e
Truck 6
404g
Car 5
404f
On 7
404h
Regulate 8
404i
Off 9
404j
Close 11
404l
Open 10
404k

FIG.4

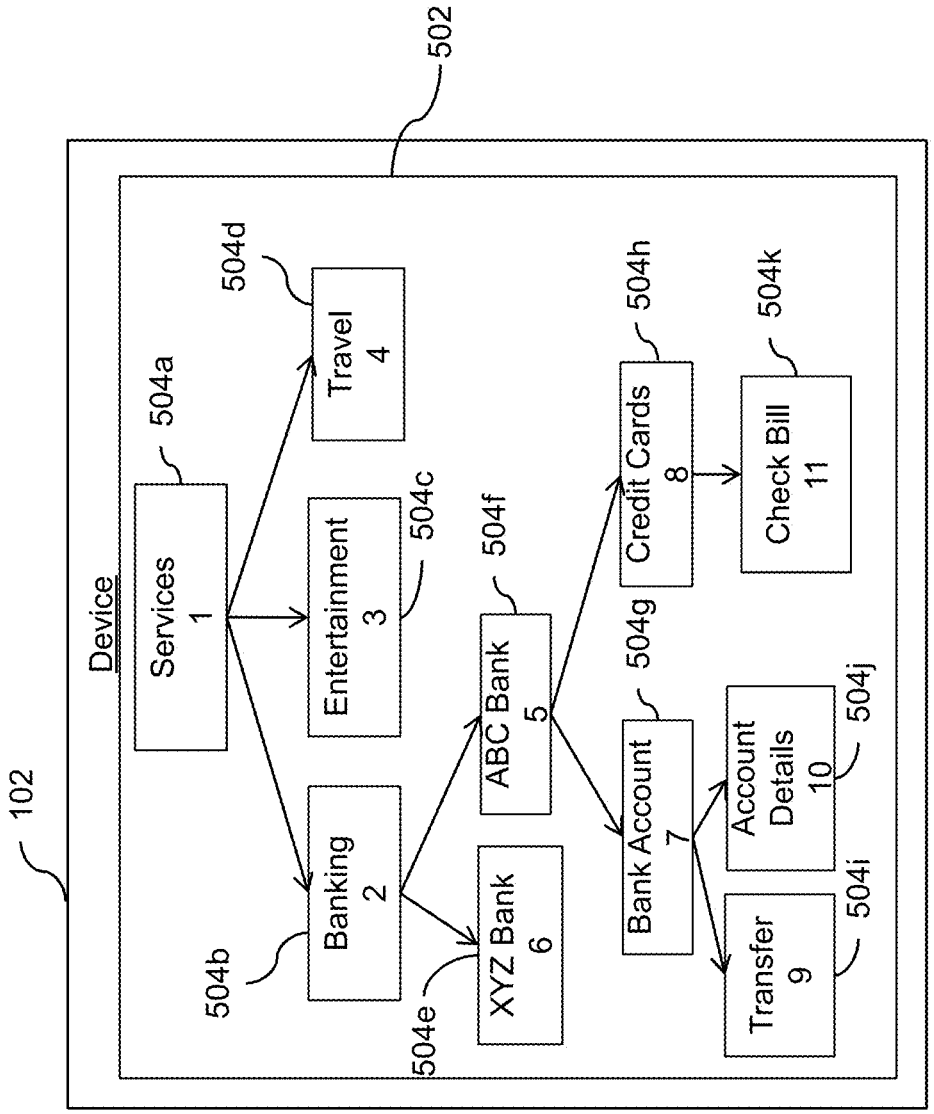

102
502
Device
Services
1
504a
Banking
2
504b
Entertainment
3
504c
Travel
4
504d
ABC Bank
5
504f
XYZ Bank
6
504e
Bank Account
7
504g
Credit Cards
8
504h
Check Bill
11
504k
Account
Details
10
504j
Transfer
9
504i

FIG. 5

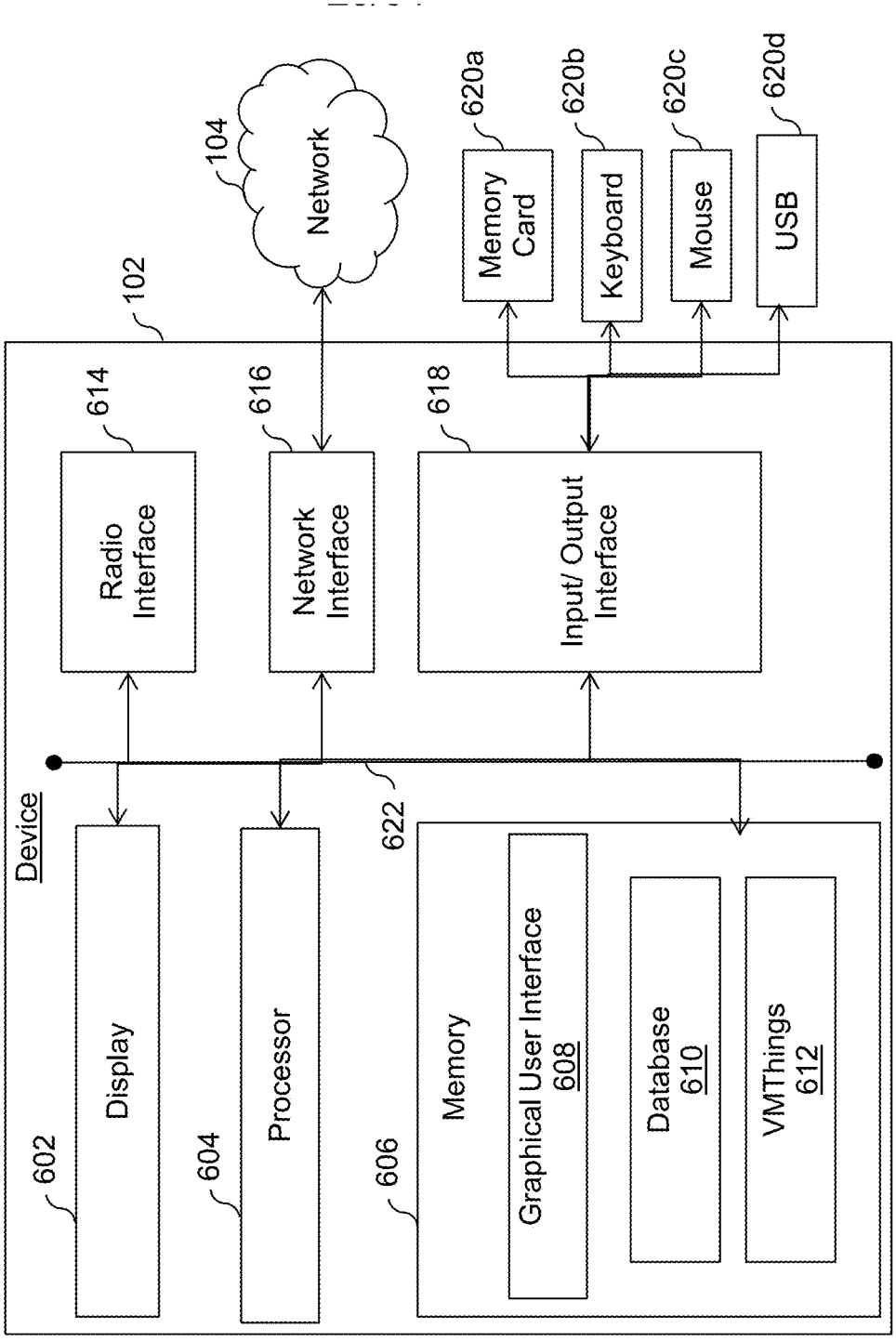

Network
104
620a
620b
620c
620d
Memory Card
Keyboard
Mouse
USB
102
614
616
618
Radio Interface
Network Interface
Input/ Output Interface
Device
622
Display
Processor
Memory
Graphical User Interface 608
Database 610
VMThings 612
602
604
606

FIG. 6

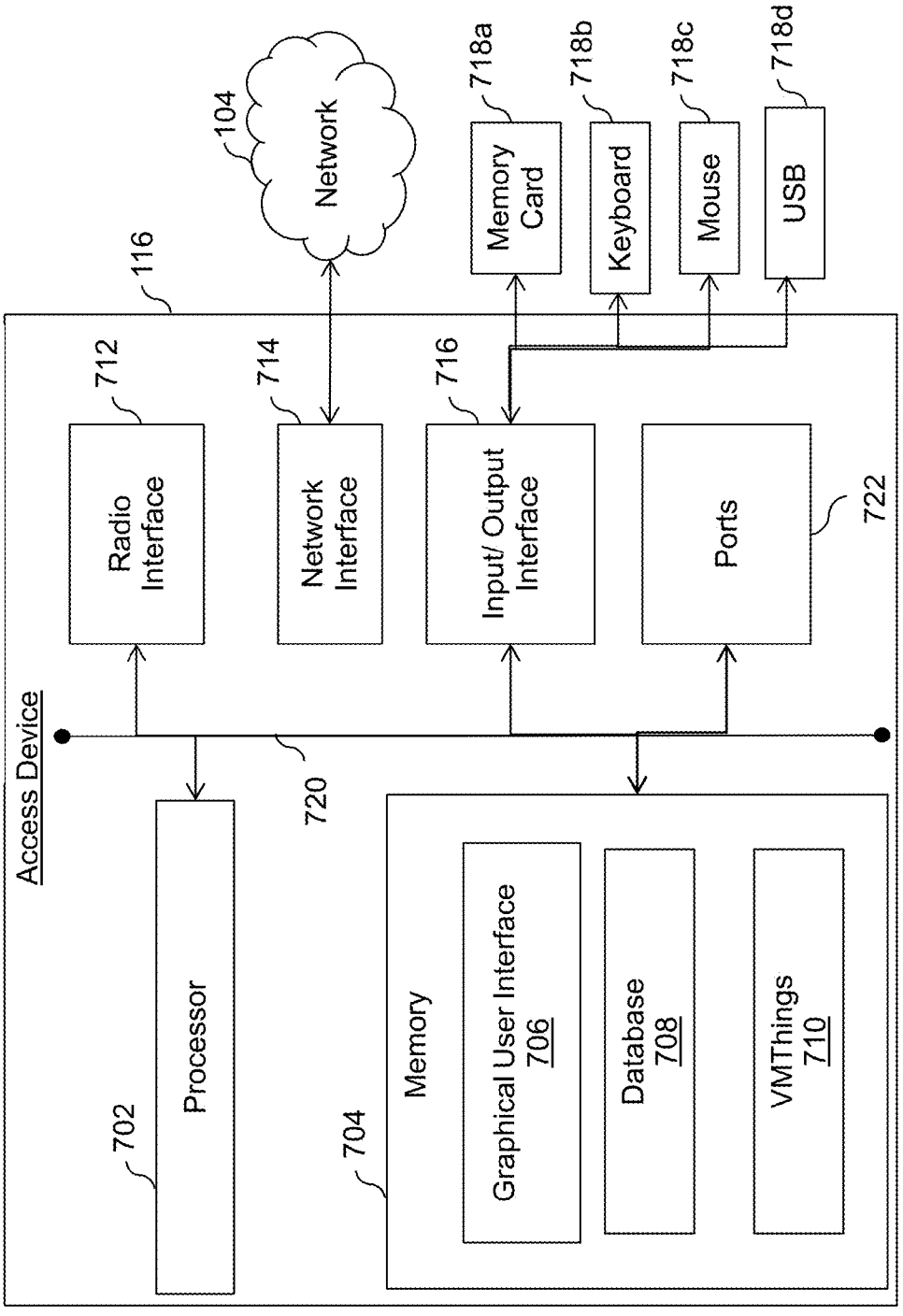

Access Device
116
104
Network
718a
Memory Card
718b
Keyboard
718c
Mouse
718d
USB
712
Radio Interface
714
Network Interface
716
Input/ Output Interface
Ports
722
720
Processor
702
Memory
704
Graphical User Interface 706
Database 708
VMThings 710

FIG. 7

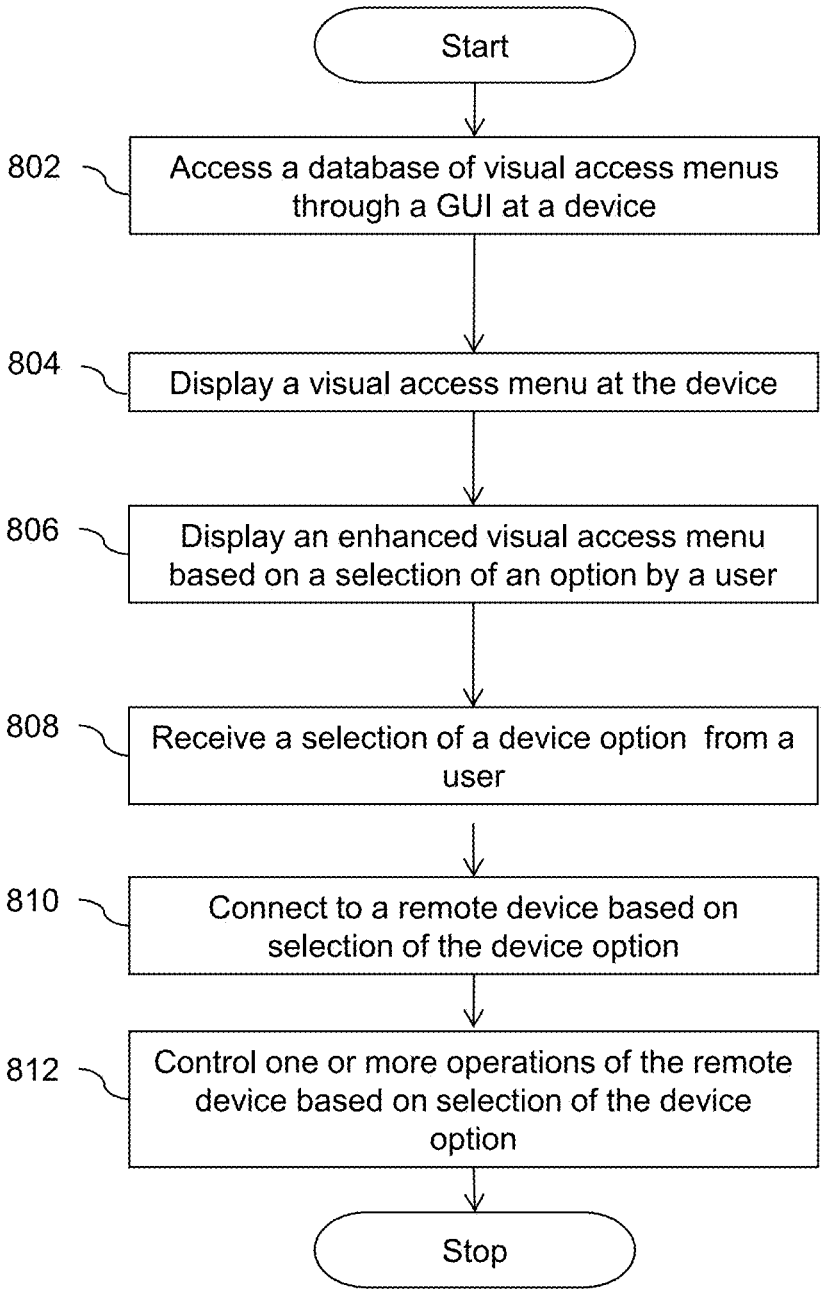

Start
802
Access a database of visual access menus through a GUI at a device
804
Display a visual access menu at the device
806
Display an enhanced visual access menu based on a selection of an option by a user
808
Receive a selection of a device option from a user
810
Connect to a remote device based on selection of the device option
812
Control one or more operations of the remote device based on selection of the device option
Stop

FIG. 8

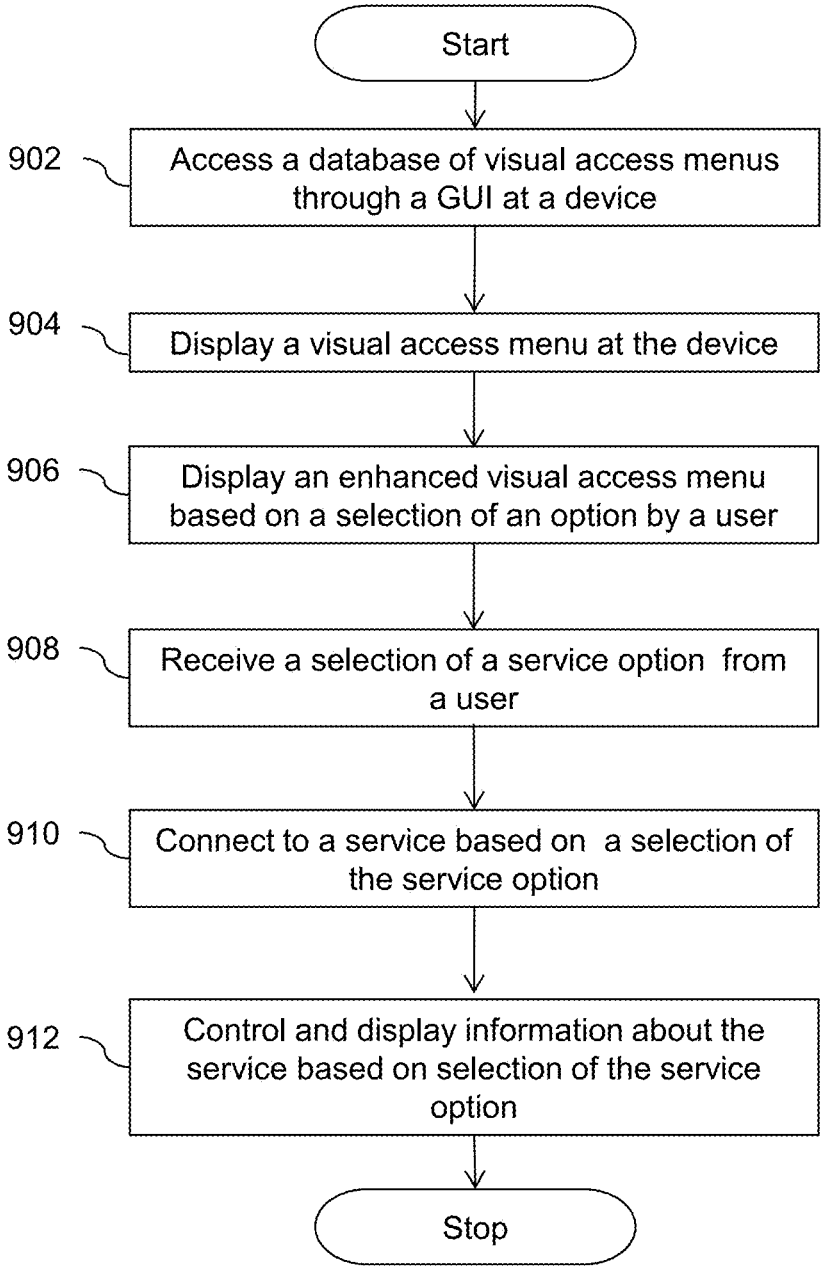

Start
902
Access a database of visual access menus through a GUI at a device
904
Display a visual access menu at the device
906
Display an enhanced visual access menu based on a selection of an option by a user
908
Receive a selection of a service option from a user
910
Connect to a service based on a selection of the service option
912
Control and display information about the service based on selection of the service option
Stop

FIG. 9

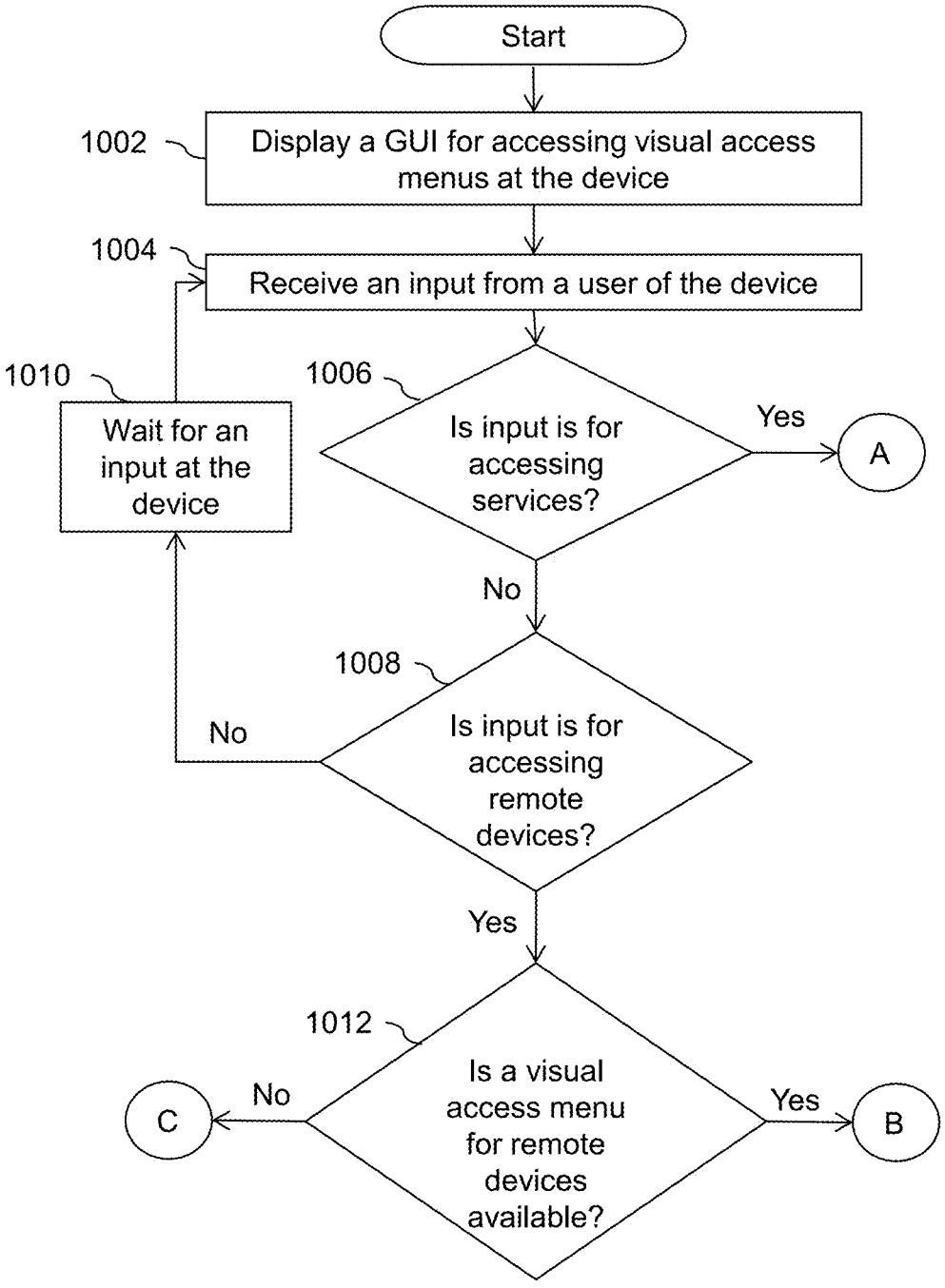

Start
1002
Display a GUI for accessing visual access menus at the device
1004
Receive an input from a user of the device
1010
Wait for an input at the device
1006
Is input is for accessing services?
Yes
A
No
1008
Is input is for accessing remote devices?
No
Yes
1012
Is a visual access menu for remote devices available?
No
C
Yes
B

FIG. 10A

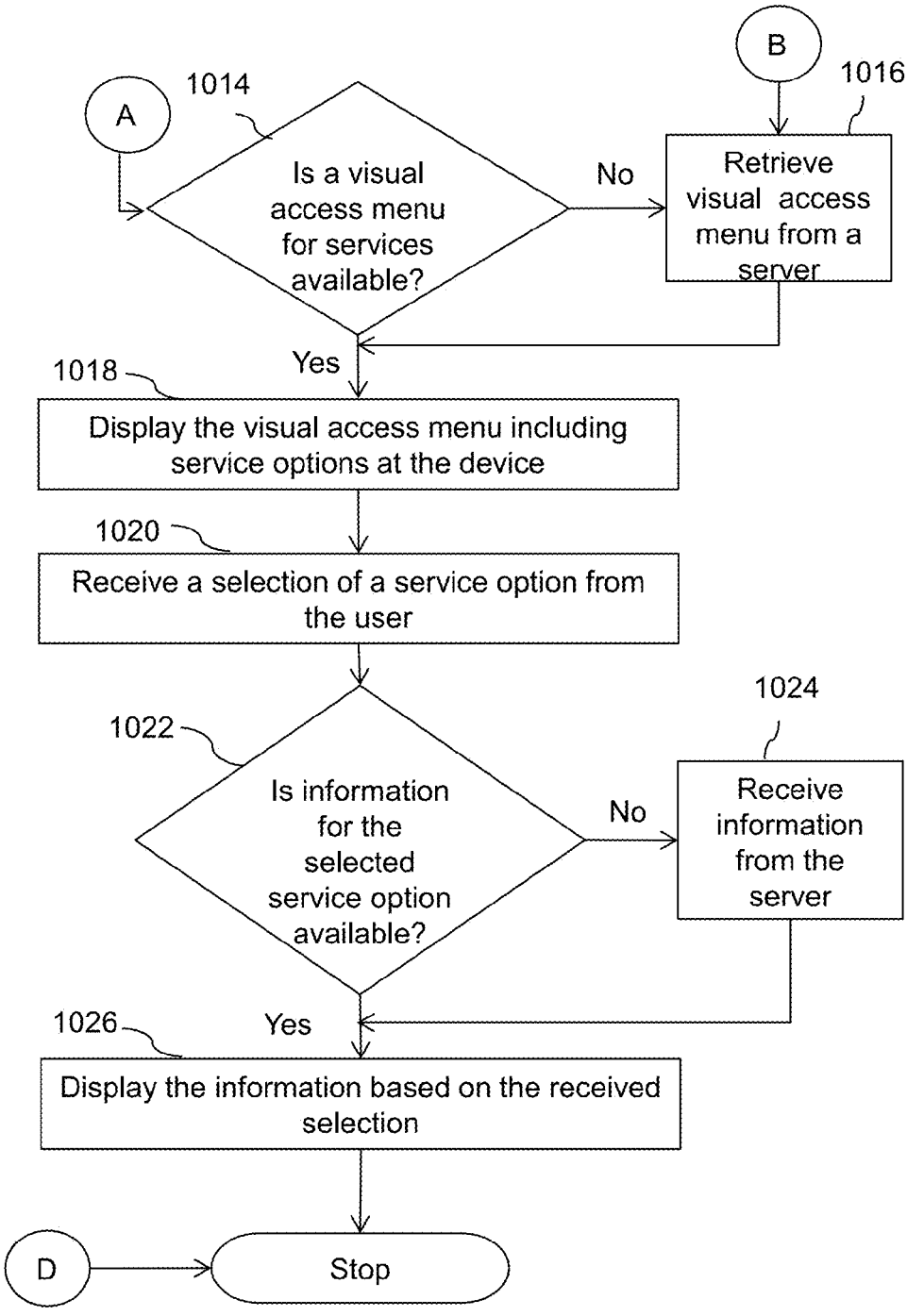

A
1014
Is a visual access menu for services available?
No
B
1016
Retrieve visual access menu from a server
Yes
1018
Display the visual access menu including service options at the device
1020
Receive a selection of a service option from the user
1022
Is information for the selected service option available?
No
1024
Receive information from the server
Yes
1026
Display the information based on the received selection
D
Stop

FIG. 10B

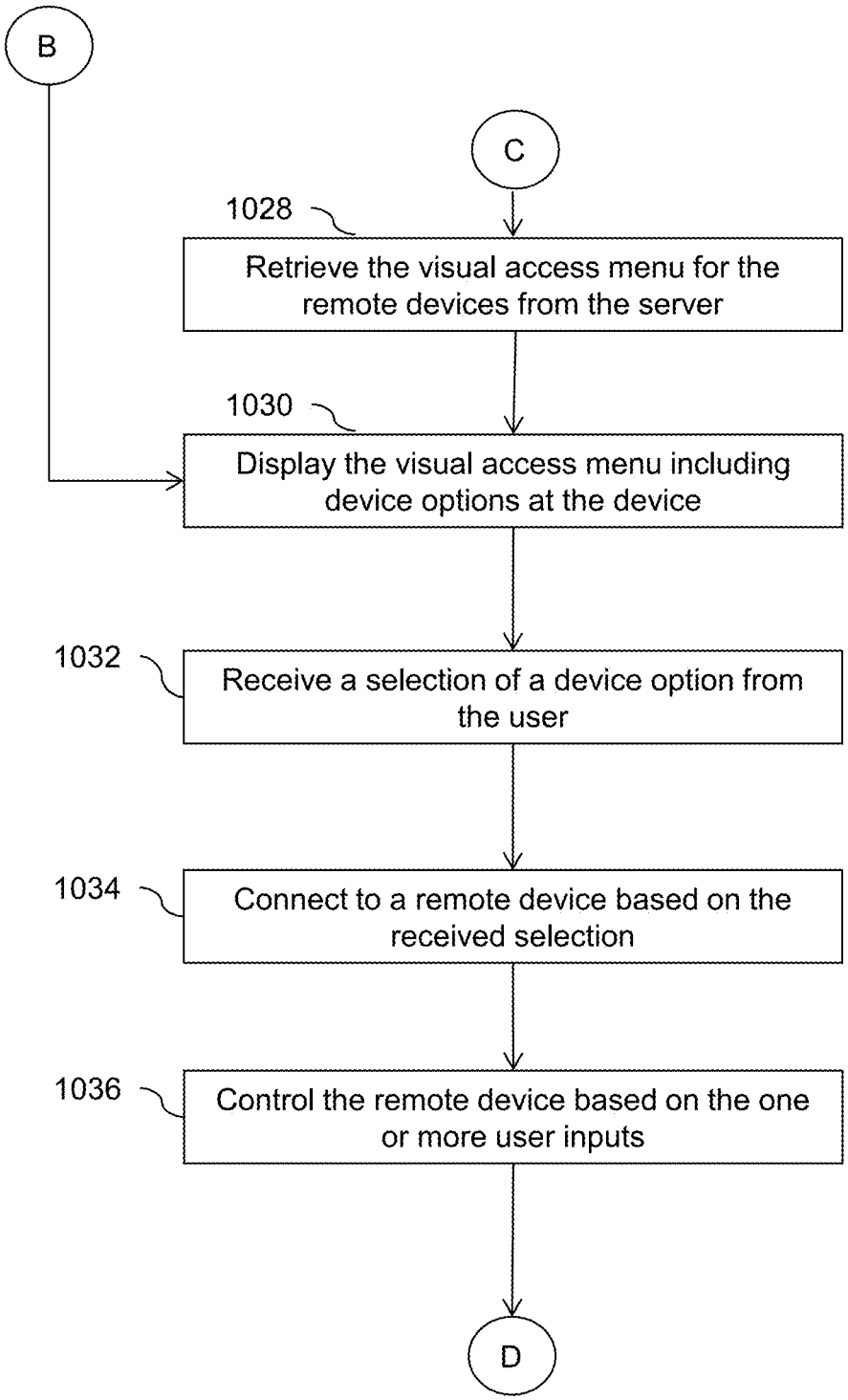

B
C
1028
Retrieve the visual access menu for the remote devices from the server
1030
Display the visual access menu including device options at the device
1032
Receive a selection of a device option from the user
1034
Connect to a remote device based on the received selection
1036
Control the remote device based on the one or more user inputs
D

FIG. 10C

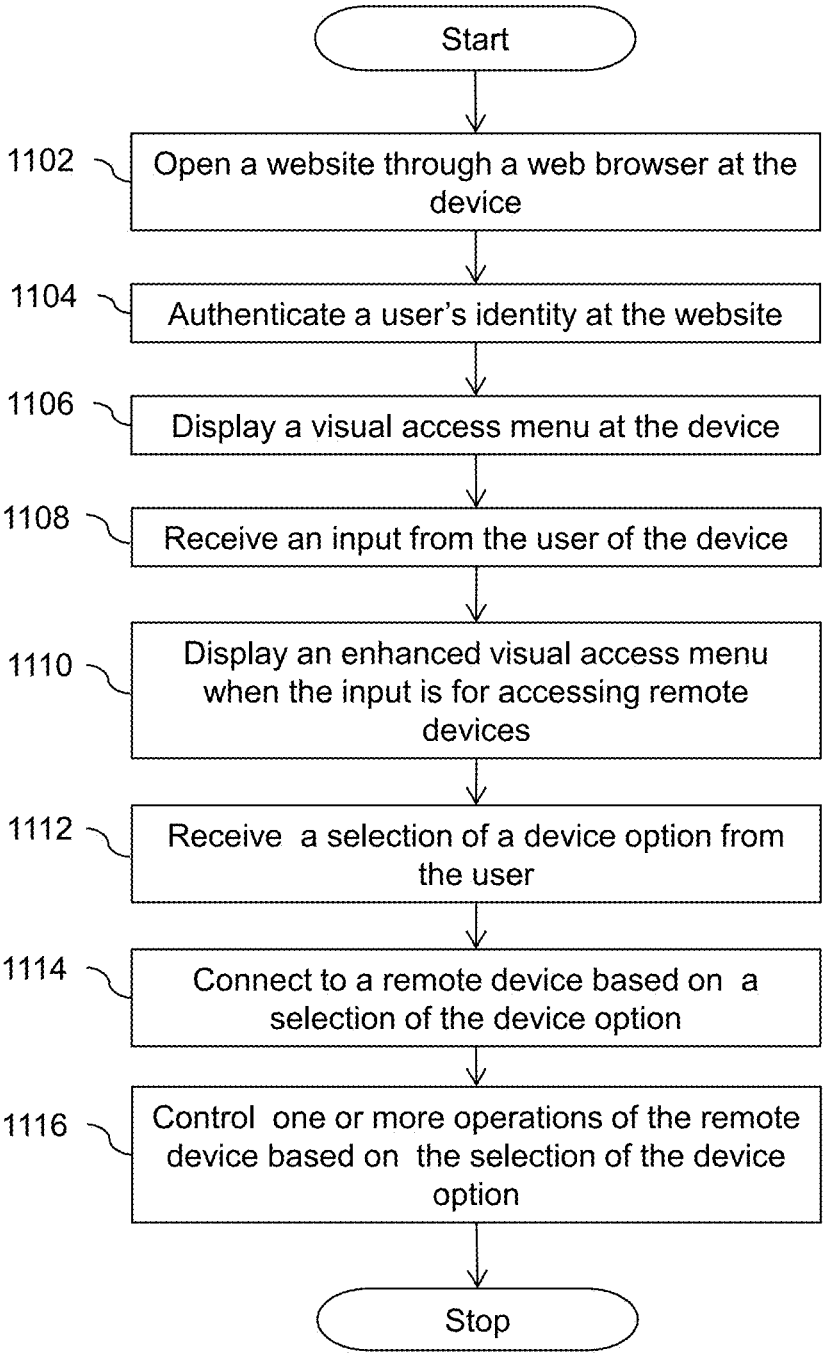

Start
1102
Open a website through a web browser at the device
1104
Authenticate a user's identity at the website
1106
Display a visual access menu at the device
1108
Receive an input from the user of the device
1110
Display an enhanced visual access menu when the input is for accessing remote devices
1112
Receive a selection of a device option from the user
1114
Connect to a remote device based on a selection of the device option
1116
Control one or more operations of the remote device based on the selection of the device option
Stop

FIG.11

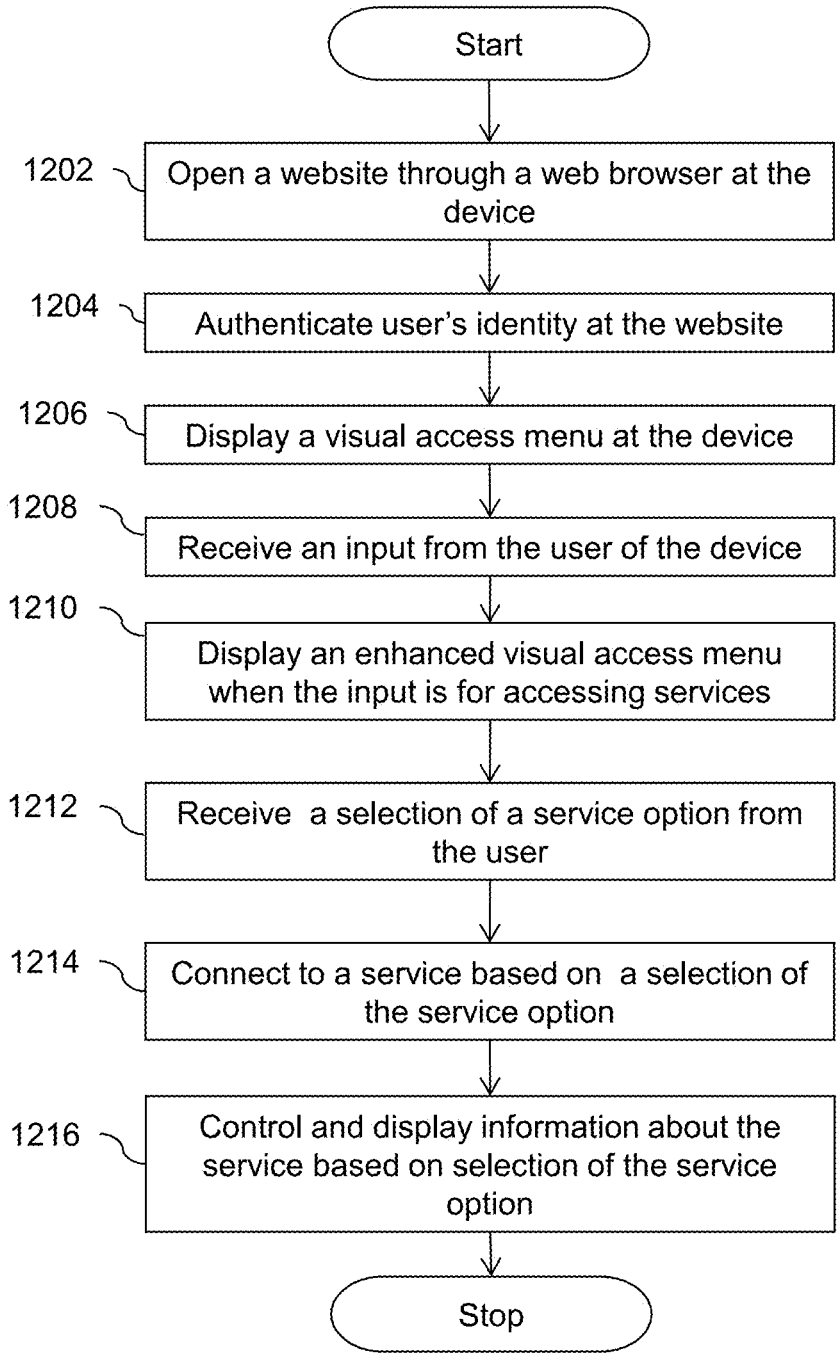

Start
1202
Open a website through a web browser at the device
1204
Authenticate user's identity at the website
1206
Display a visual access menu at the device
1208
Receive an input from the user of the device
1210
Display an enhanced visual access menu when the input is for accessing services
1212
Receive a selection of a service option from the user
1214
Connect to a service based on a selection of the service option
1216
Control and display information about the service based on selection of the service option
Stop

FIG.12

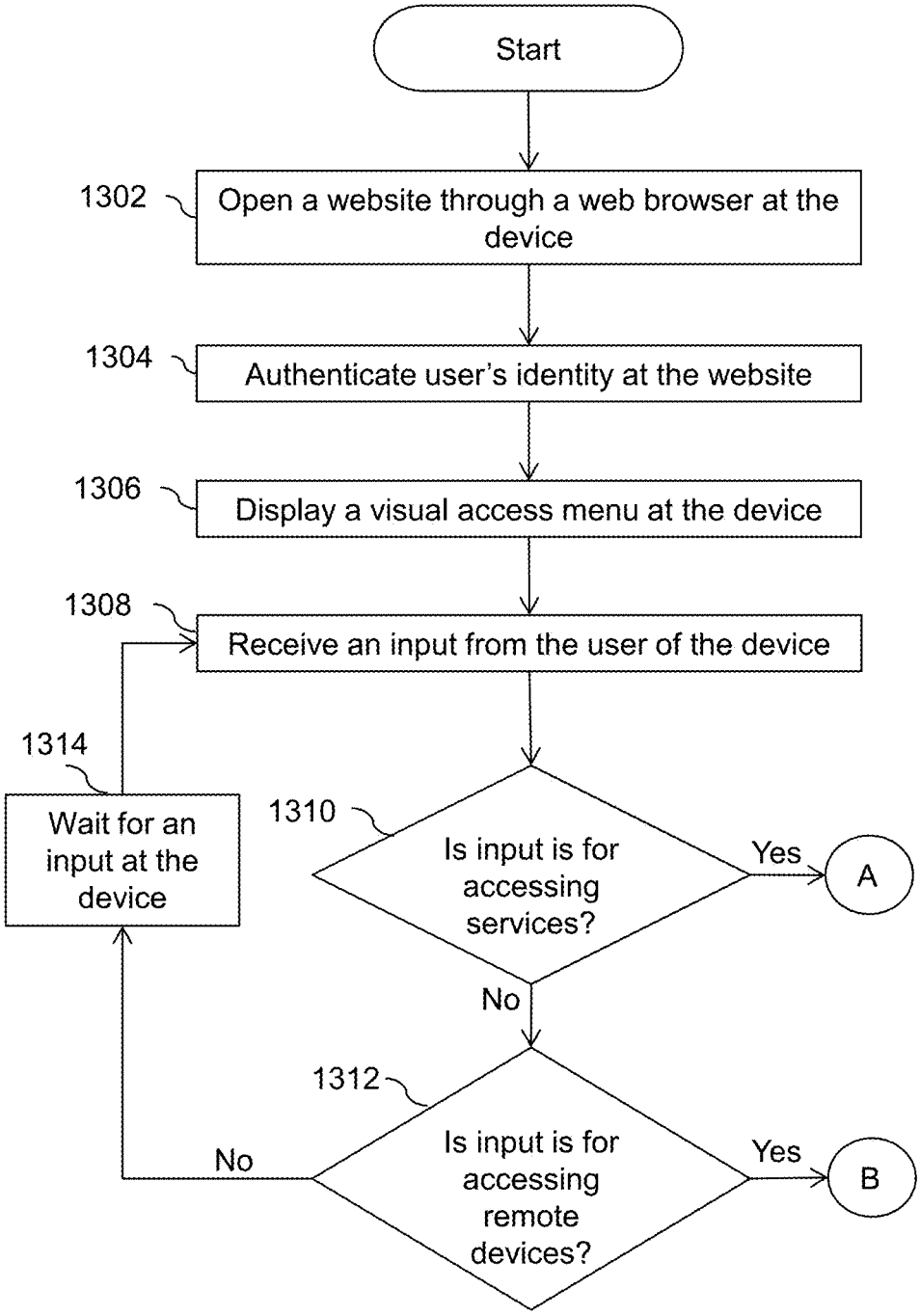

Start
1302
Open a website through a web browser at the device
1304
Authenticate user's identity at the website
1306
Display a visual access menu at the device
1308
Receive an input from the user of the device
1314
Wait for an input at the device
1310
Is input is for accessing services?
Yes
A
No
1312
Is input is for accessing remote devices?
No
Yes
B

FIG. 13A

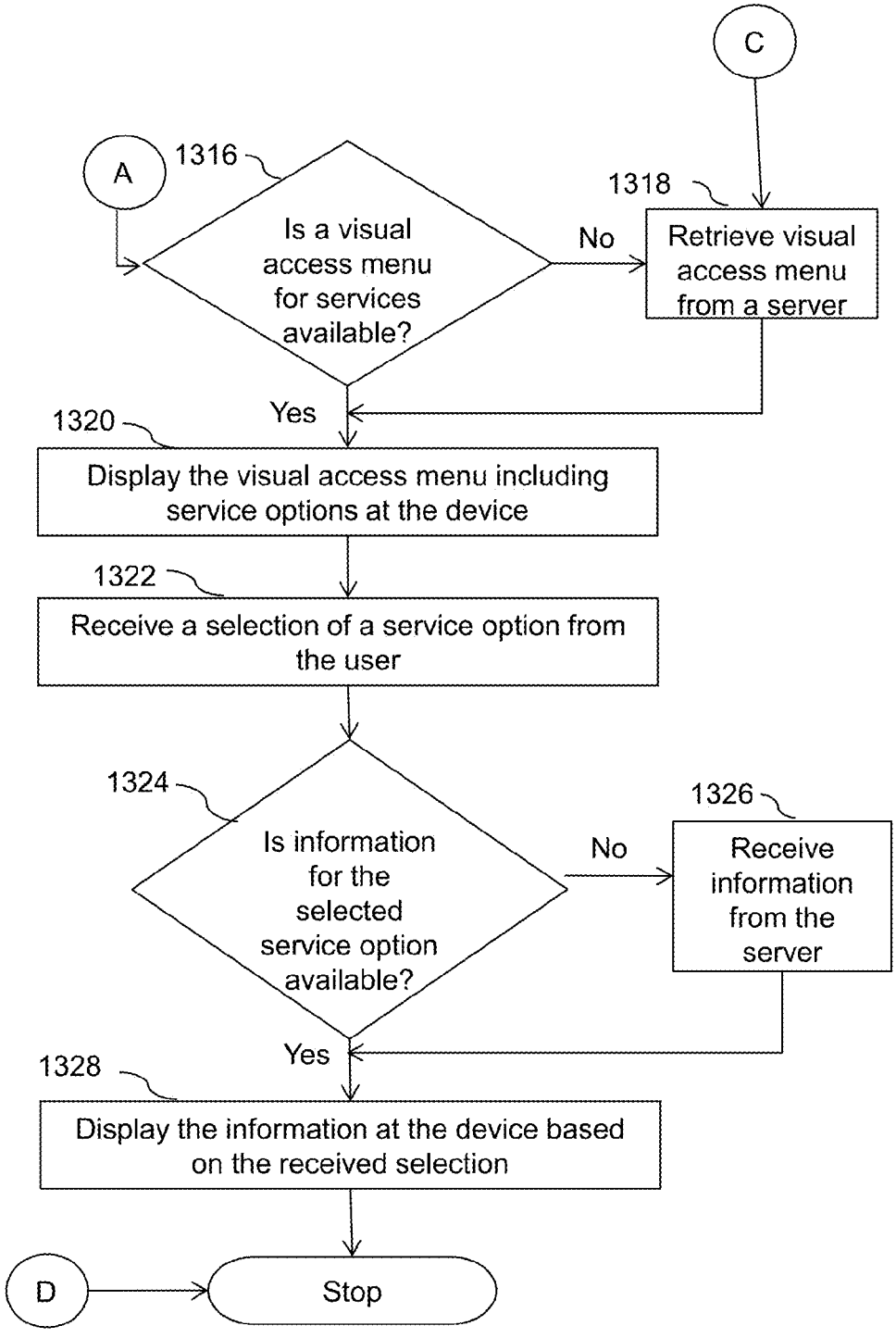

C
A
1316
Is a visual access menu for services available?
No
1318
Retrieve visual access menu from a server
Yes
1320
Display the visual access menu including service options at the device
1322
Receive a selection of a service option from the user
1324
Is information for the selected service option available?
No
1326
Receive information from the server
Yes
1328
Display the information at the device based on the received selection
D
Stop

FIG13B

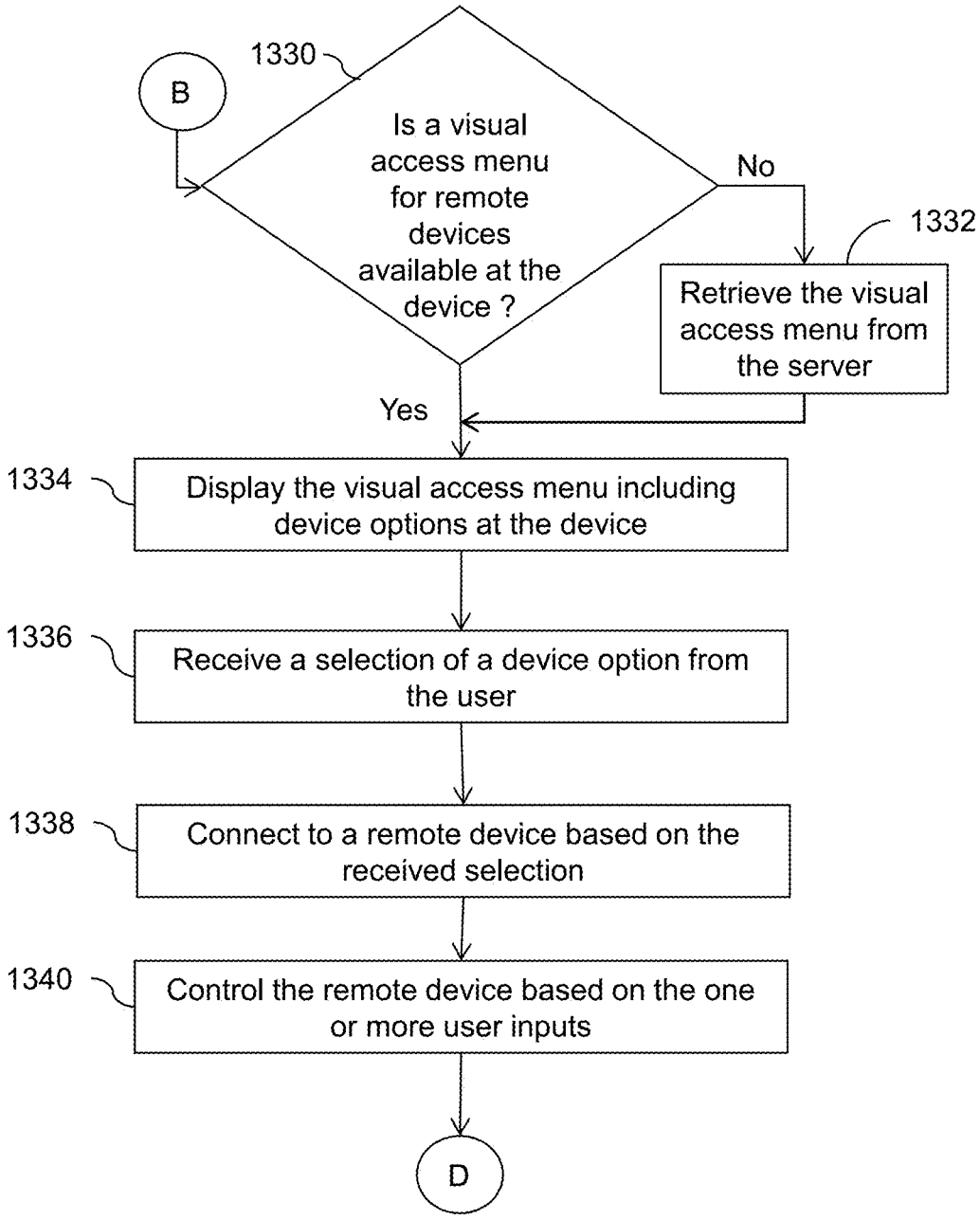

B
1330
Is a visual access menu for remote devices available at the device ?
No
1332
Retrieve the visual access menu from the server
Yes
1334
Display the visual access menu including device options at the device
1336
Receive a selection of a device option from the user
1338
Connect to a remote device based on the received selection
1340
Control the remote device based on the one or more user inputs
D

FIG. 13C

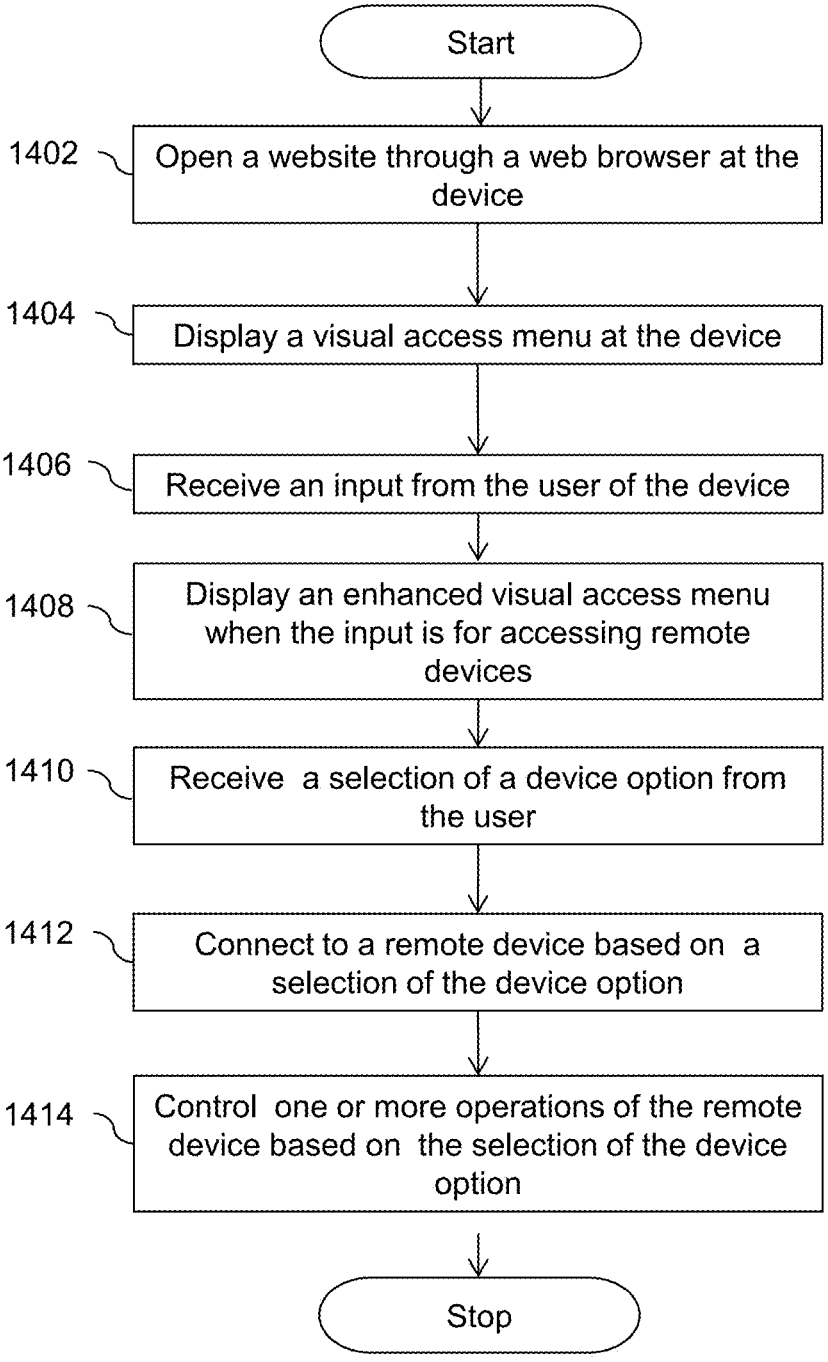

Start
1402
Open a website through a web browser at the device
1404
Display a visual access menu at the device
1406
Receive an input from the user of the device
1408
Display an enhanced visual access menu when the input is for accessing remote devices
1410
Receive a selection of a device option from the user
1412
Connect to a remote device based on a selection of the device option
1414
Control one or more operations of the remote device based on the selection of the device option
Stop

FIG.14

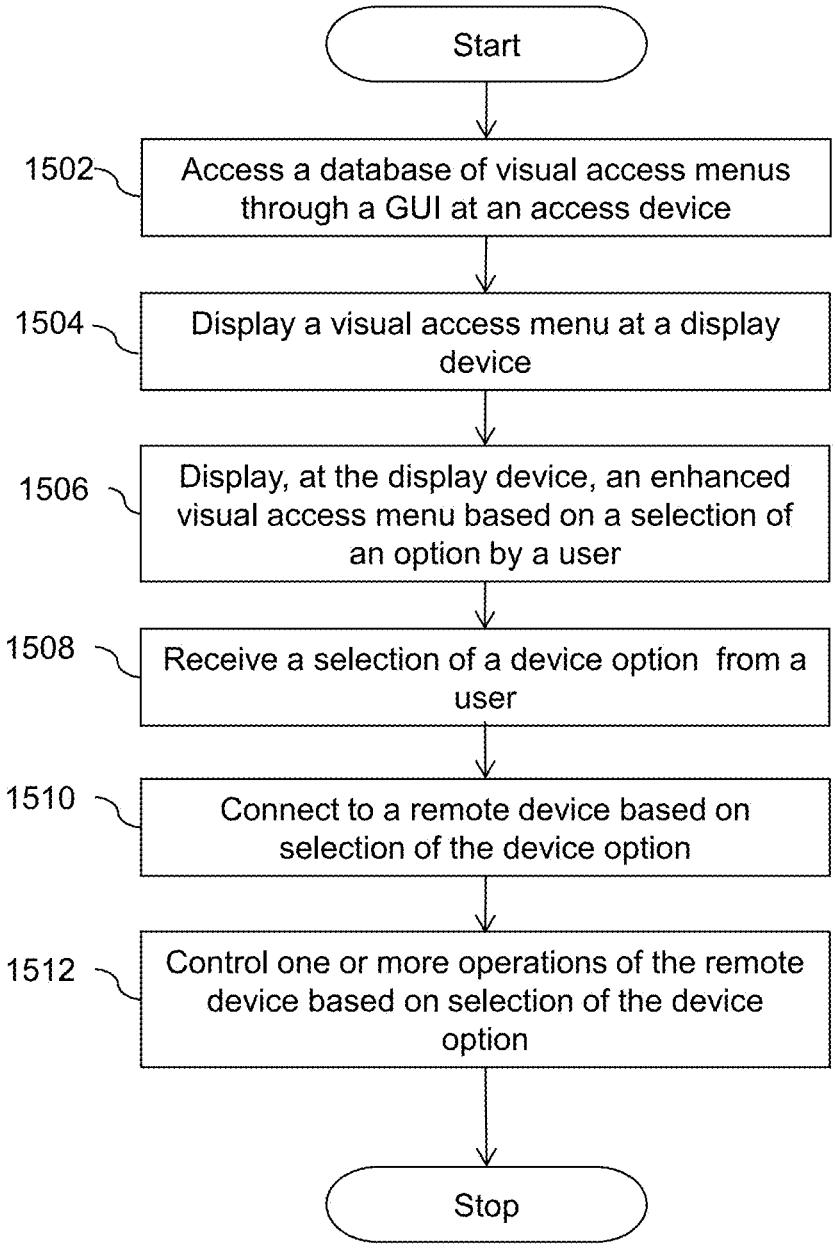

Start
1502
Access a database of visual access menus through a GUI at an access device
1504
Display a visual access menu at a display device
1506
Display, at the display device, an enhanced visual access menu based on a selection of an option by a user
1508
Receive a selection of a device option from a user
1510
Connect to a remote device based on selection of the device option
1512
Control one or more operations of the remote device based on selection of the device option
Stop

FIG. 15

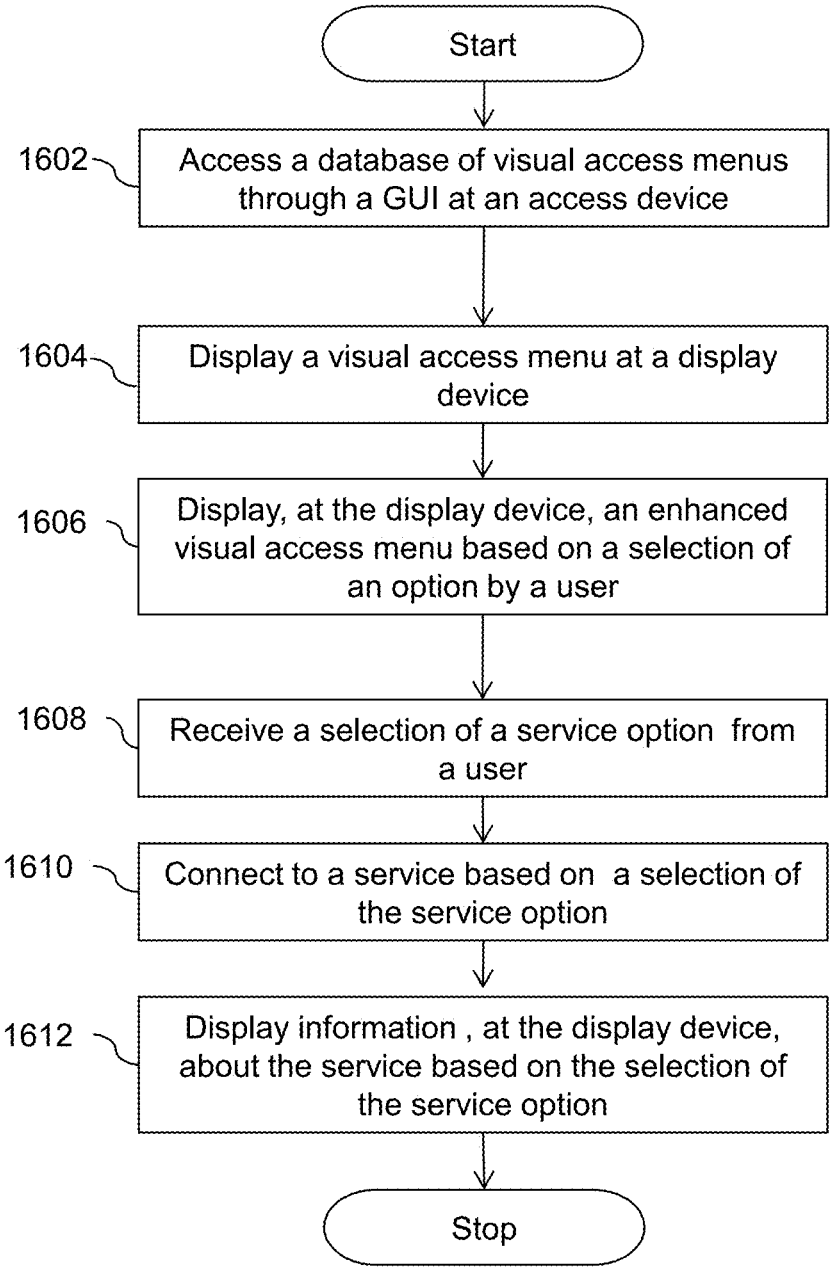

Start
1602
Access a database of visual access menus through a GUI at an access device
1604
Display a visual access menu at a display device
1606
Display, at the display device, an enhanced visual access menu based on a selection of an option by a user
1608
Receive a selection of a service option from a user
1610
Connect to a service based on a selection of the service option
1612
Display information , at the display device, about the service based on the selection of the service option
Stop

FIG. 16

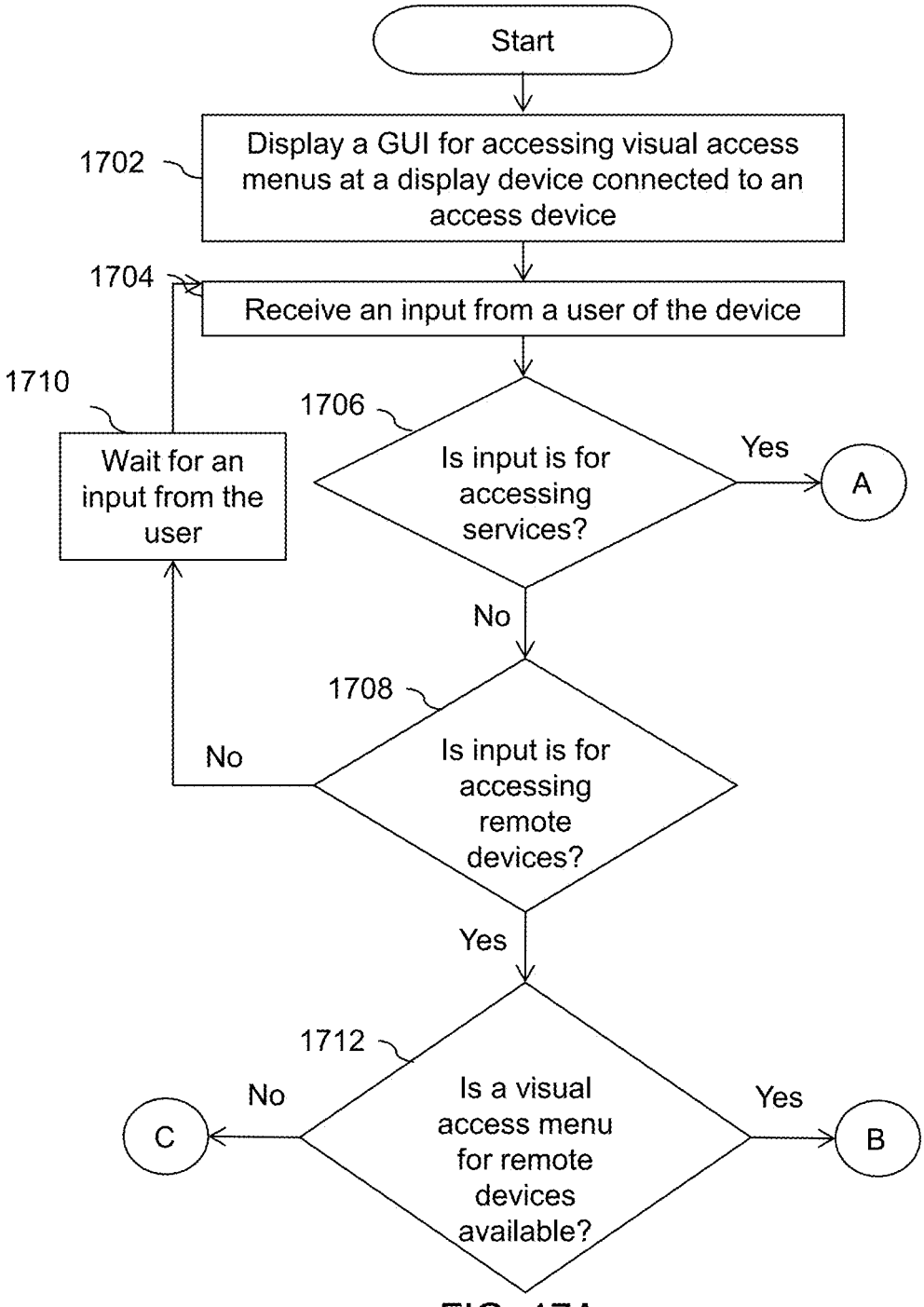

Start
1702
Display a GUI for accessing visual access menus at a display device connected to an access device
1704
Receive an input from a user of the device
1710
Wait for an input from the user
1706
Is input is for accessing services?
Yes
A
No
1708
Is input is for accessing remote devices?
No
Yes
1712
Is a visual access menu for remote devices available?
No
C
Yes
B

FIG. 17A

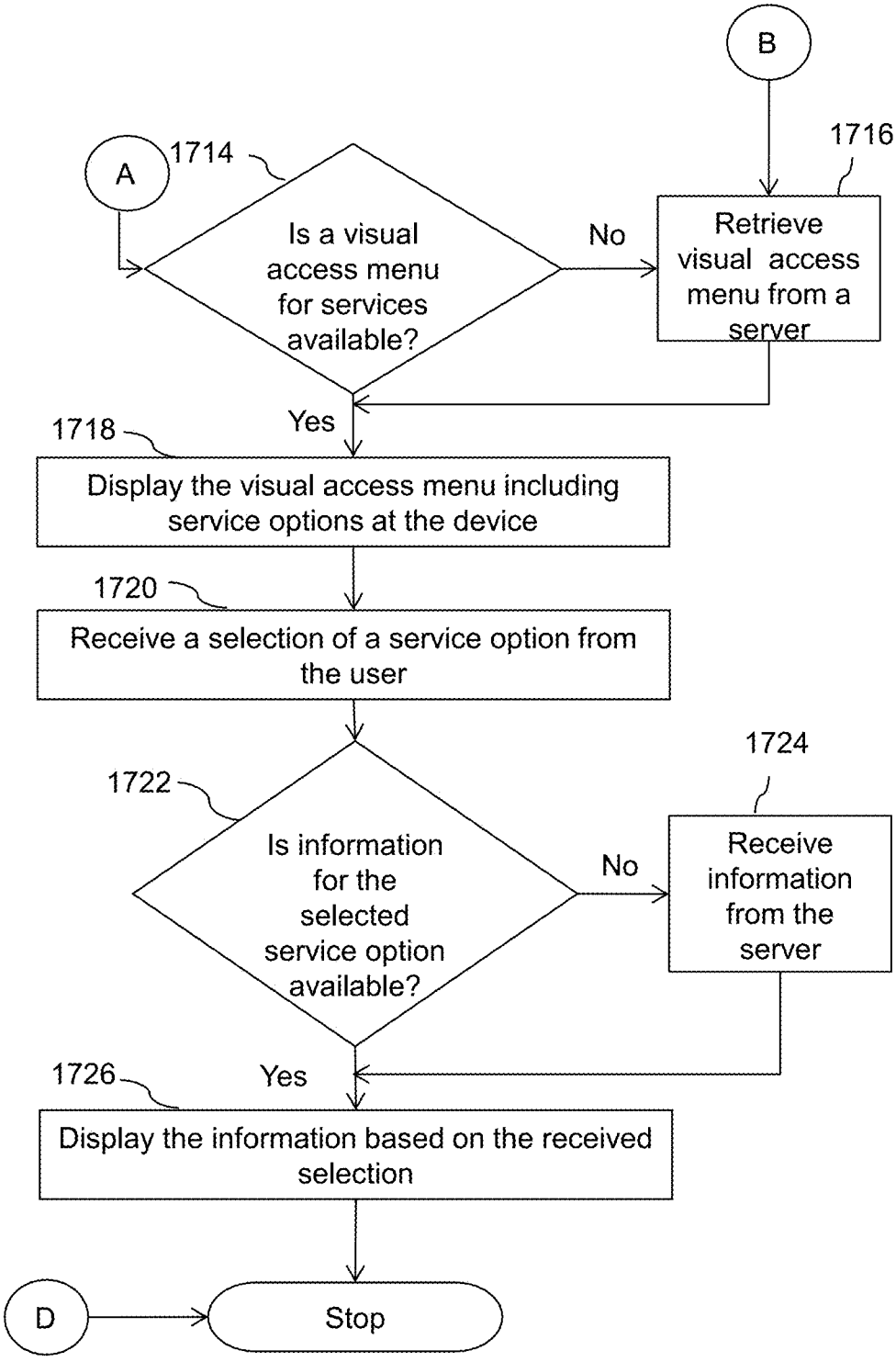

B
1716
A
1714
Is a visual access menu for services available?
No
Retrieve visual access menu from a server
Yes
1718
Display the visual access menu including service options at the device
1720
Receive a selection of a service option from the user
1724
1722
Is information for the selected service option available?
No
Receive information from the server
1726
Yes
Display the information based on the received selection
D
Stop

FIG. 17B

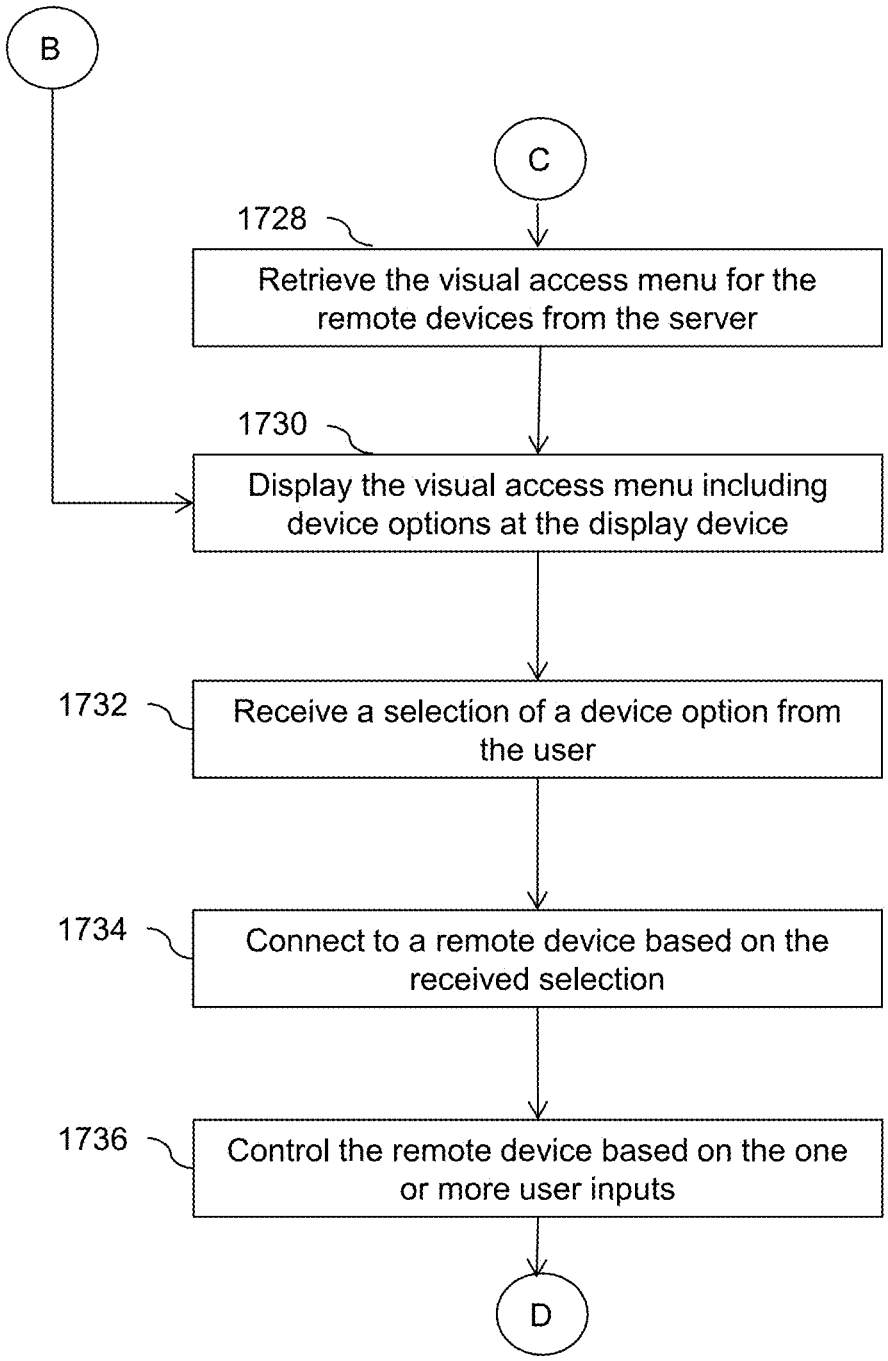

B
C
1728
Retrieve the visual access menu for the remote devices from the server
1730
Display the visual access menu including device options at the display device
1732
Receive a selection of a device option from the user
1734
Connect to a remote device based on the received selection
1736
Control the remote device based on the one or more user inputs
D

FIG. 17C

FIG.18A

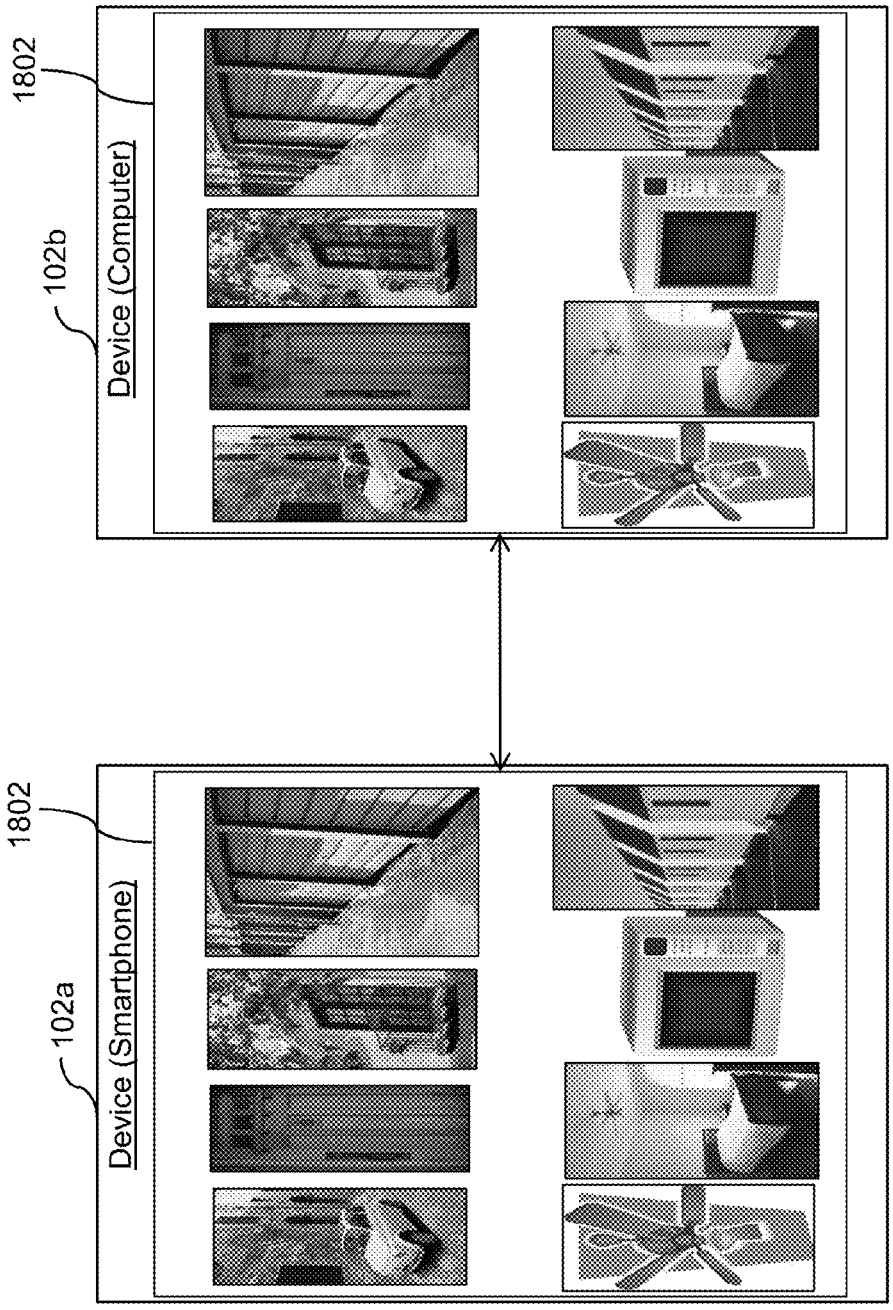


FIG.18B

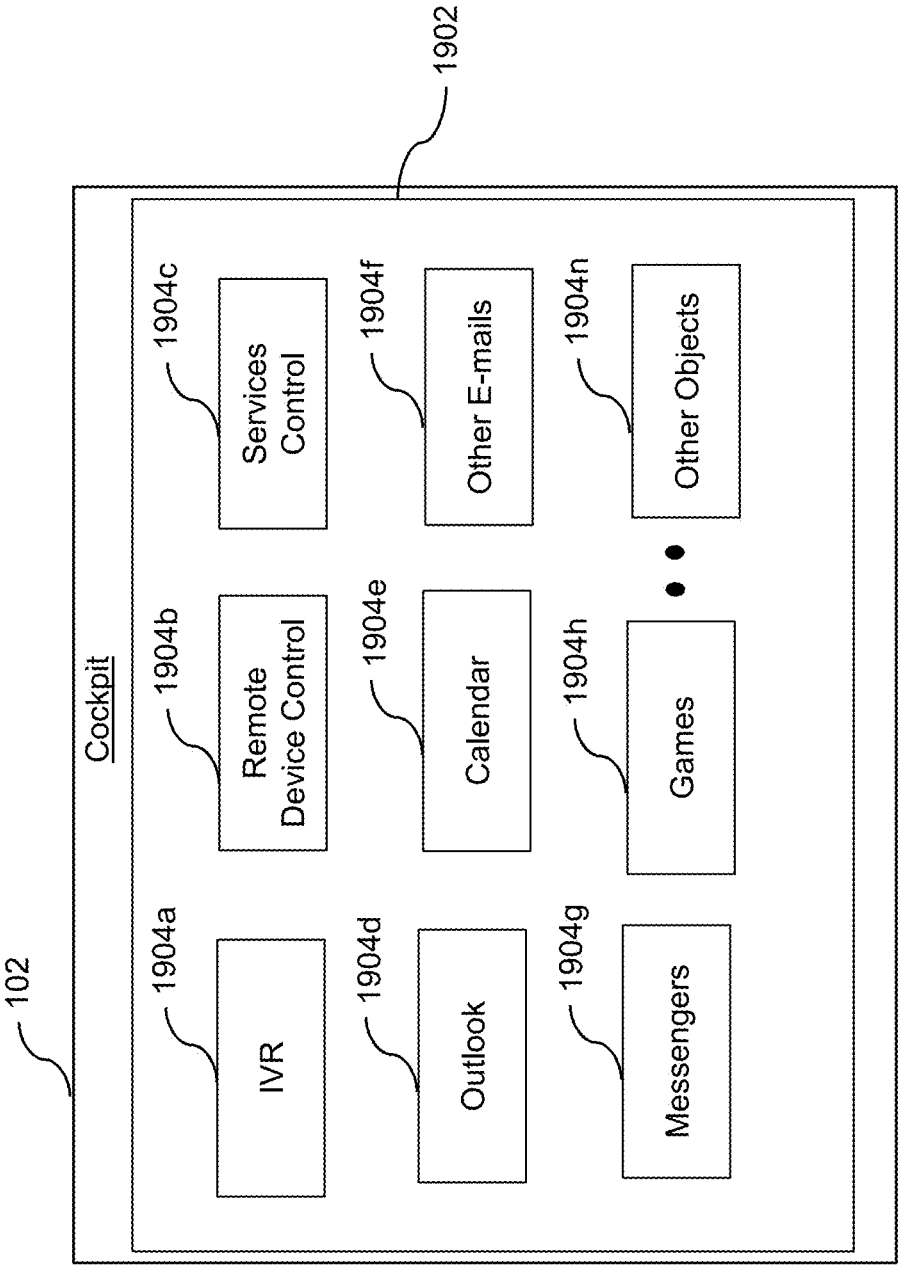

102
1902
Cockpit
1904a
IVR
1904b
Remote Device Control
1904c
Services Control
1904d
Outlook
1904e
Calendar
1904f
Other E-mails
1904g
Messengers
1904h
Games
1904n
Other Objects

FIG.19

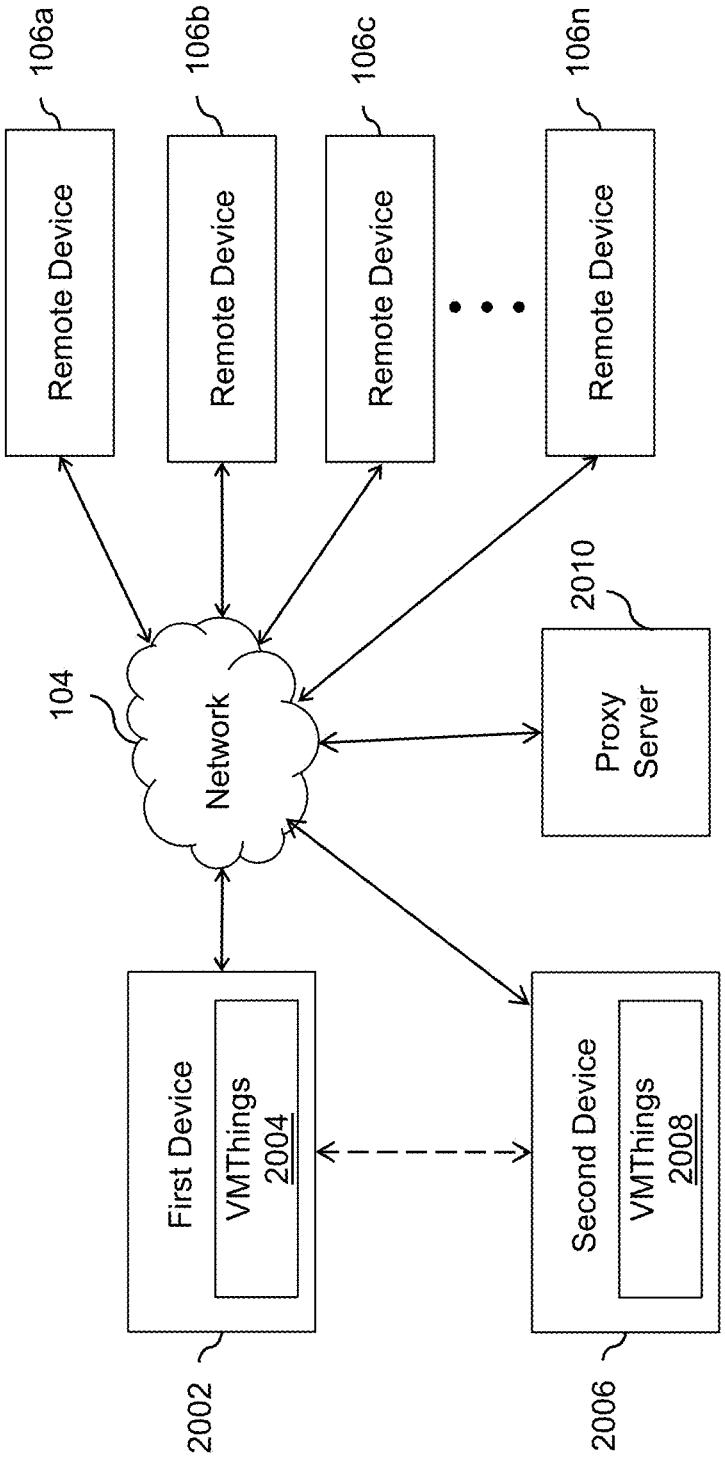

106a
106b
106c
106n
Remote Device
Remote Device
Remote Device
Remote Device
104
Network
2010
Proxy Server
First Device
VMThings 2004
Second Device
VMThings 2008
2002
2006

FIG. 20A

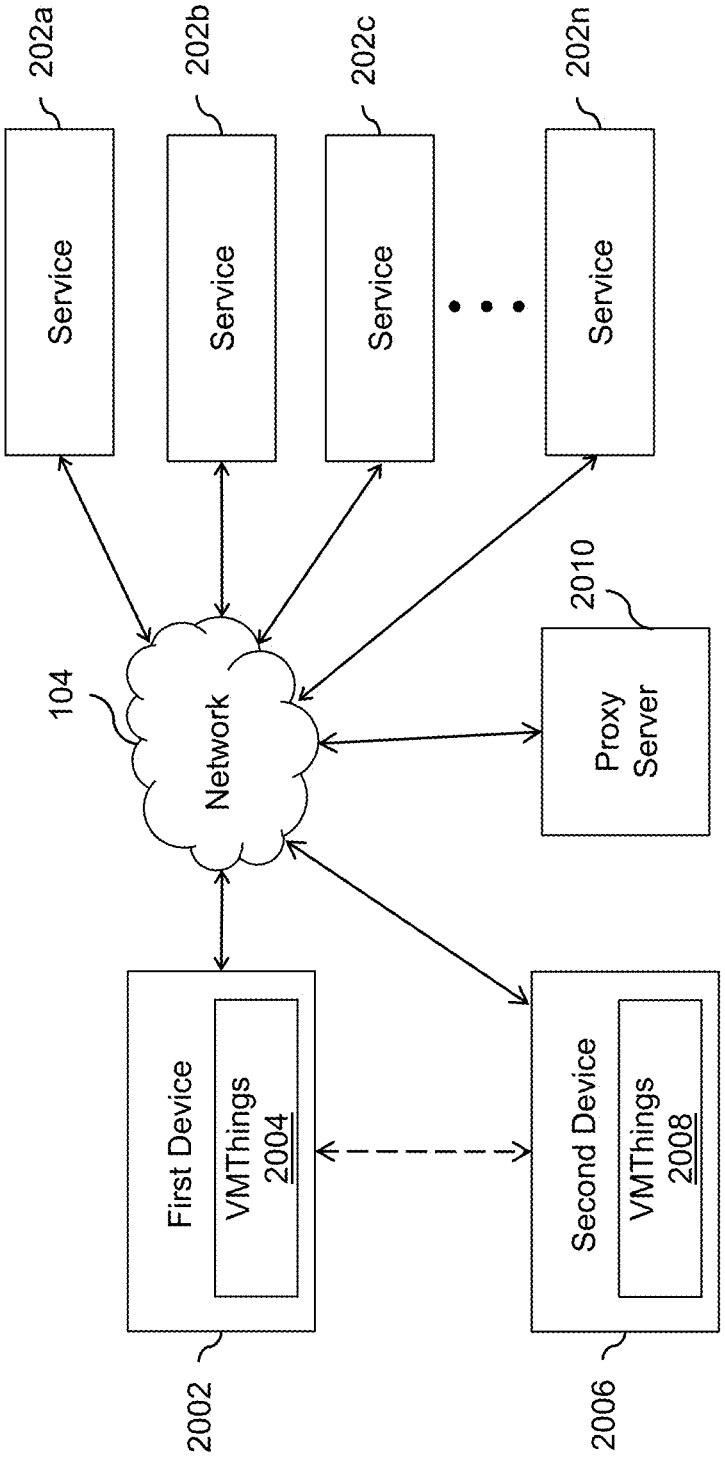

202a
202b
202c
202n
Service
Service
Service
Service
104
Network
2010
Proxy Server
First Device
VMThings 2004
Second Device
VMThings 2008
2002
2006

FIG. 20B

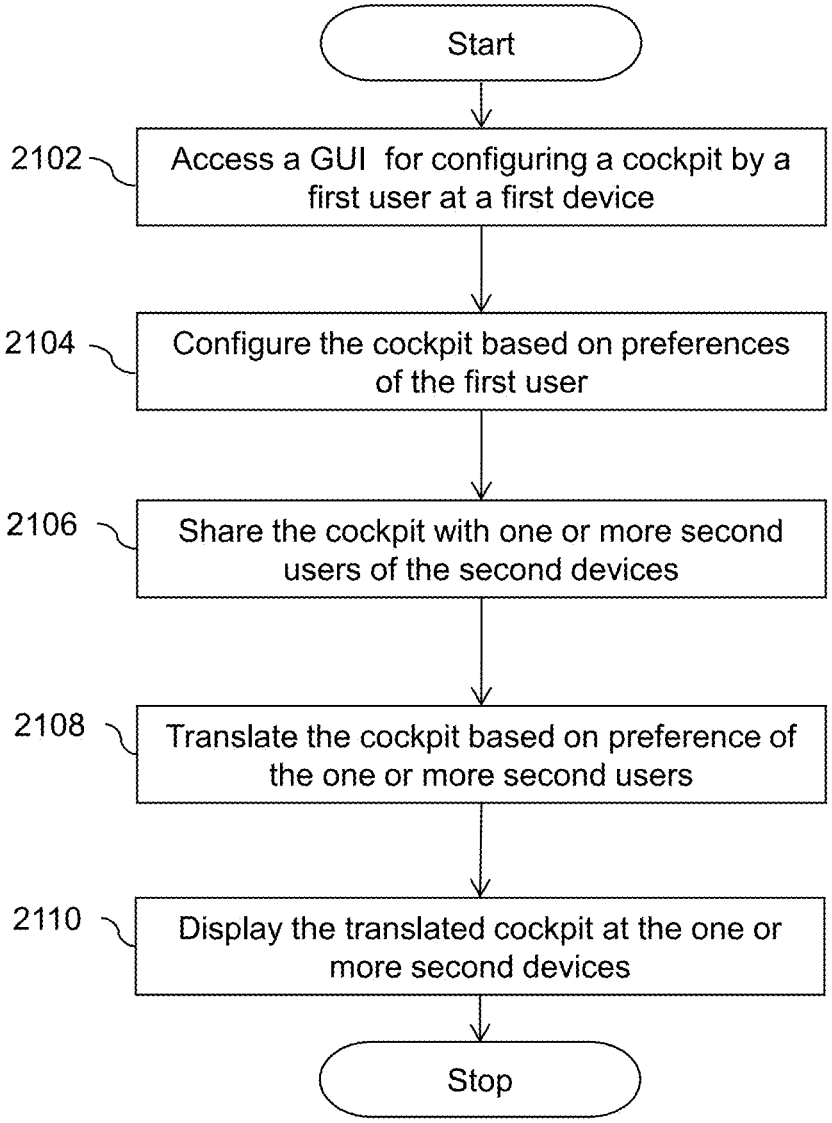

Start
2102
Access a GUI for configuring a cockpit by a first user at a first device
2104
Configure the cockpit based on preferences of the first user
2106
Share the cockpit with one or more second users of the second devices
2108
Translate the cockpit based on preference of the one or more second users
2110
Display the translated cockpit at the one or more second devices
Stop

FIG. 21

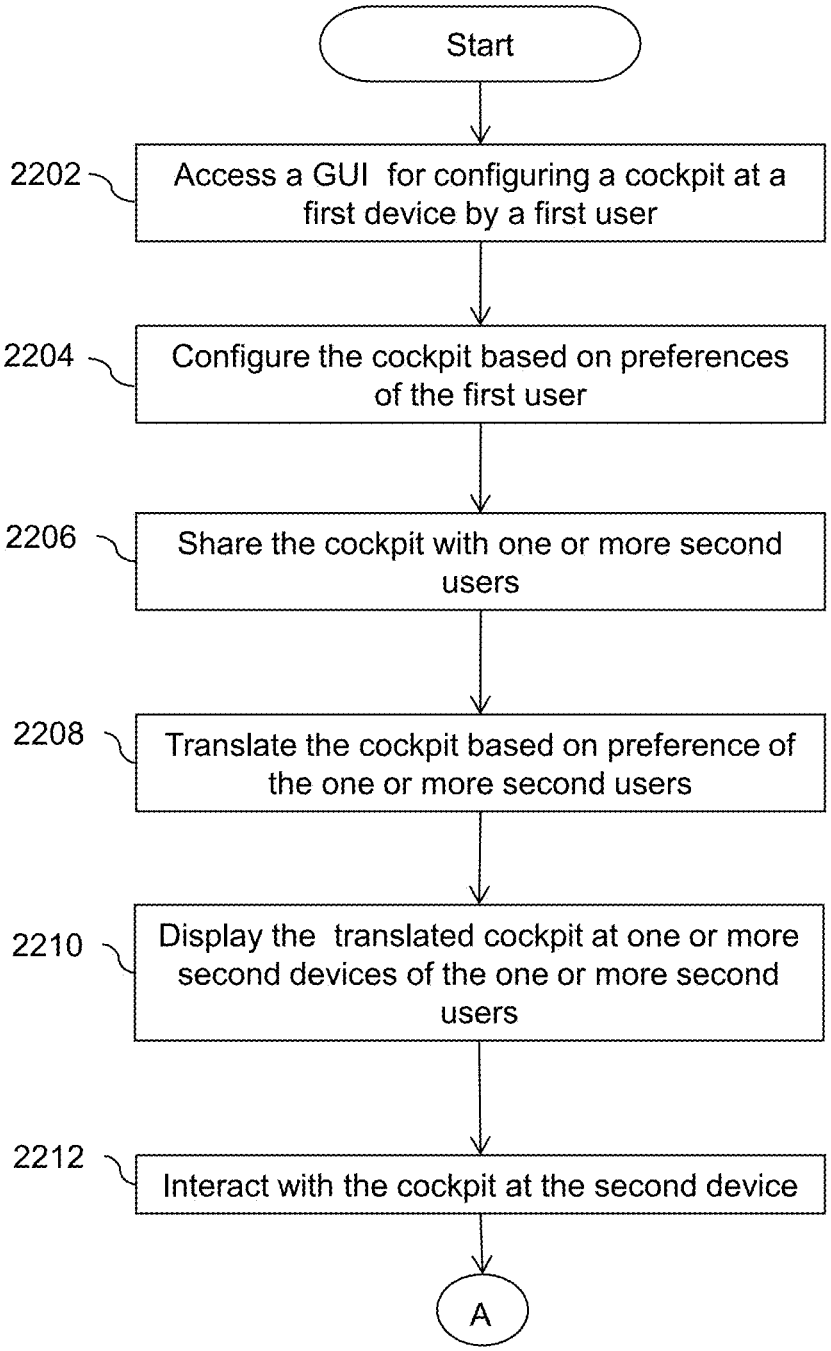

Start
2202
Access a GUI for configuring a cockpit at a first device by a first user
2204
Configure the cockpit based on preferences of the first user
2206
Share the cockpit with one or more second users
2208
Translate the cockpit based on preference of the one or more second users
2210
Display the translated cockpit at one or more second devices of the one or more second users
2212
Interact with the cockpit at the second device
A

FIG. 22A

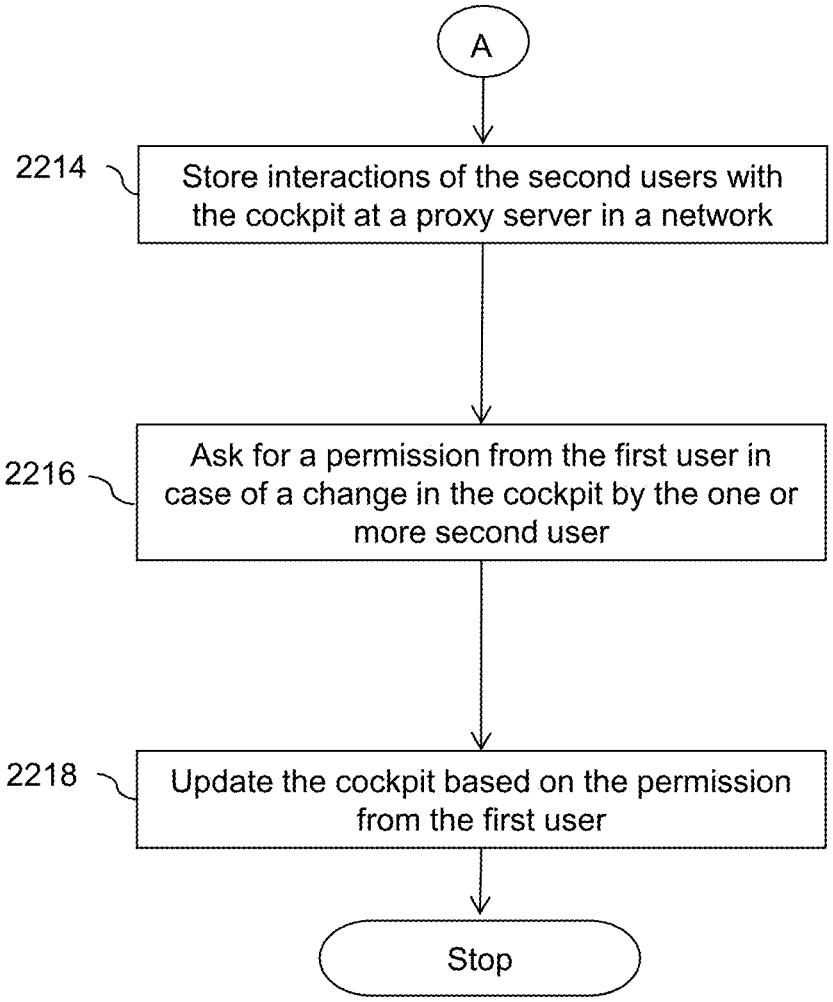

A
2214
Store interactions of the second users with the cockpit at a proxy server in a network
2216
Ask for a permission from the first user in case of a change in the cockpit by the one or more second user
2218
Update the cockpit based on the permission from the first user
Stop

FIG. 22B

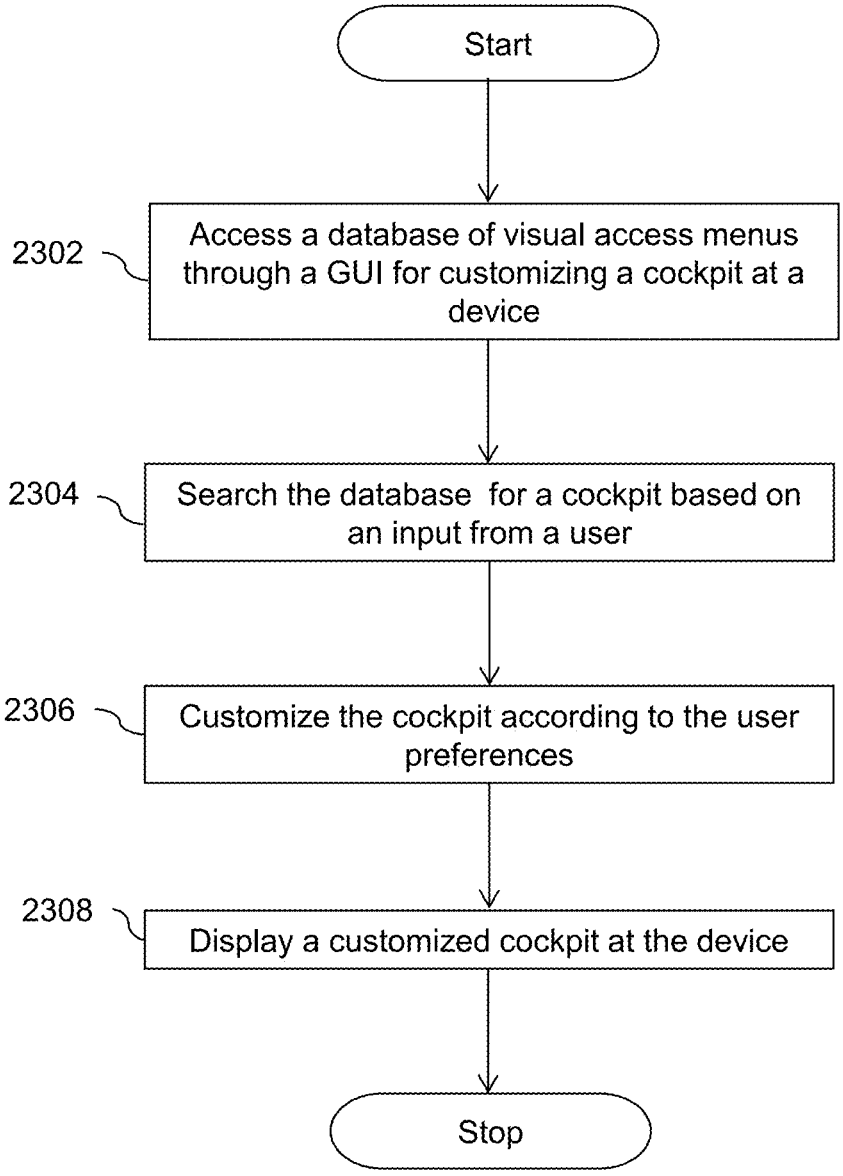

Start
2302
Access a database of visual access menus through a GUI for customizing a cockpit at a device
2304
Search the database for a cockpit based on an input from a user
2306
Customize the cockpit according to the user preferences
2308
Display a customized cockpit at the device
Stop

FIG. 23

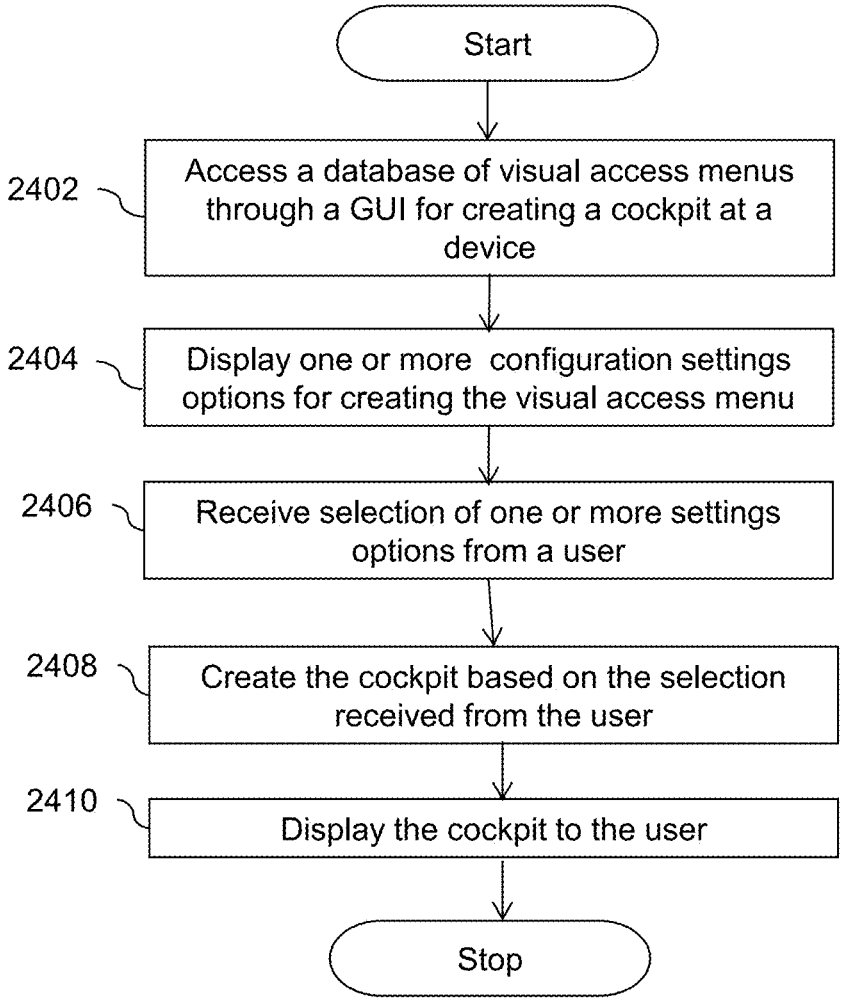

Start
2402
Access a database of visual access menus through a GUI for creating a cockpit at a device
2404
Display one or more configuration settings options for creating the visual access menu
2406
Receive selection of one or more settings options from a user
2408
Create the cockpit based on the selection received from the user
2410
Display the cockpit to the user
Stop

FIG. 24

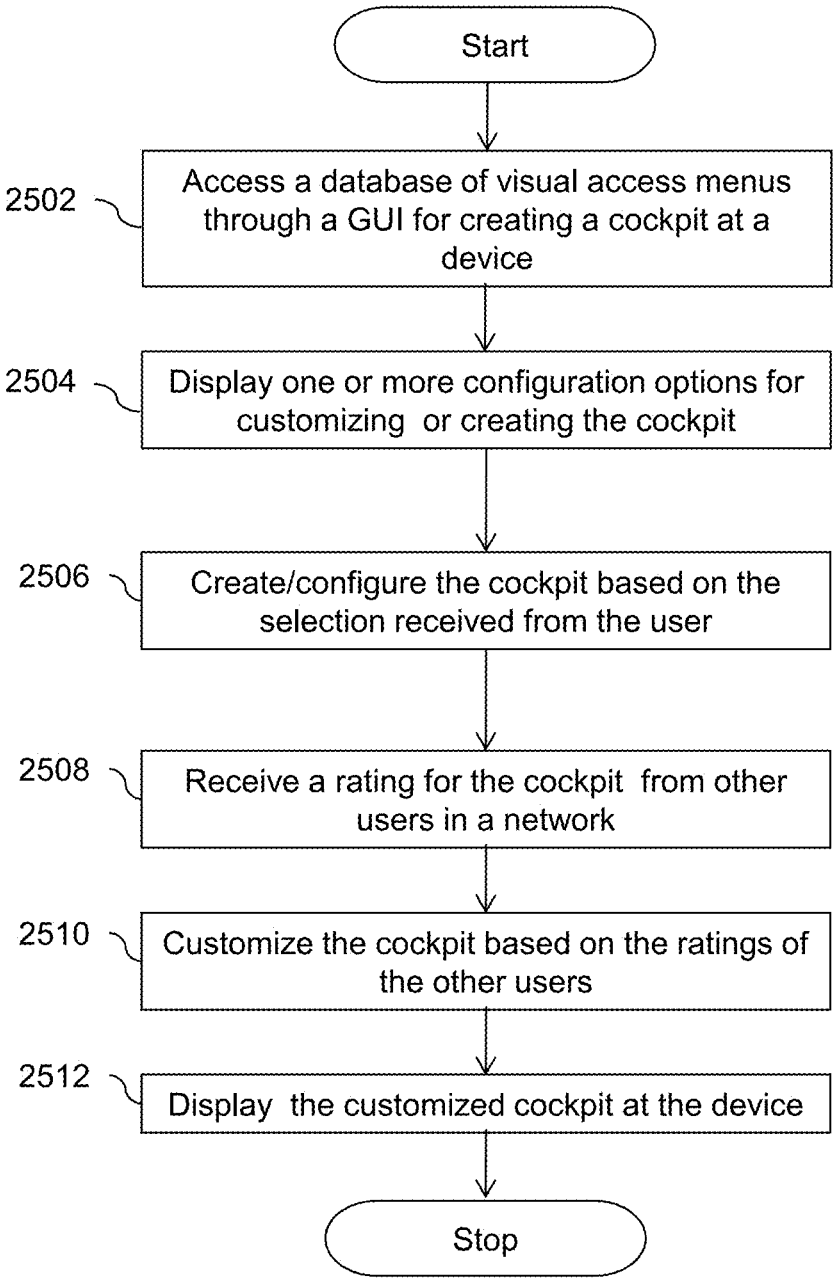

Start
2502
Access a database of visual access menus through a GUI for creating a cockpit at a device
2504
Display one or more configuration options for customizing or creating the cockpit
2506
Create/configure the cockpit based on the selection received from the user
2508
Receive a rating for the cockpit from other users in a network
2510
Customize the cockpit based on the ratings of the other users
2512
Display the customized cockpit at the device
Stop

FIG. 25

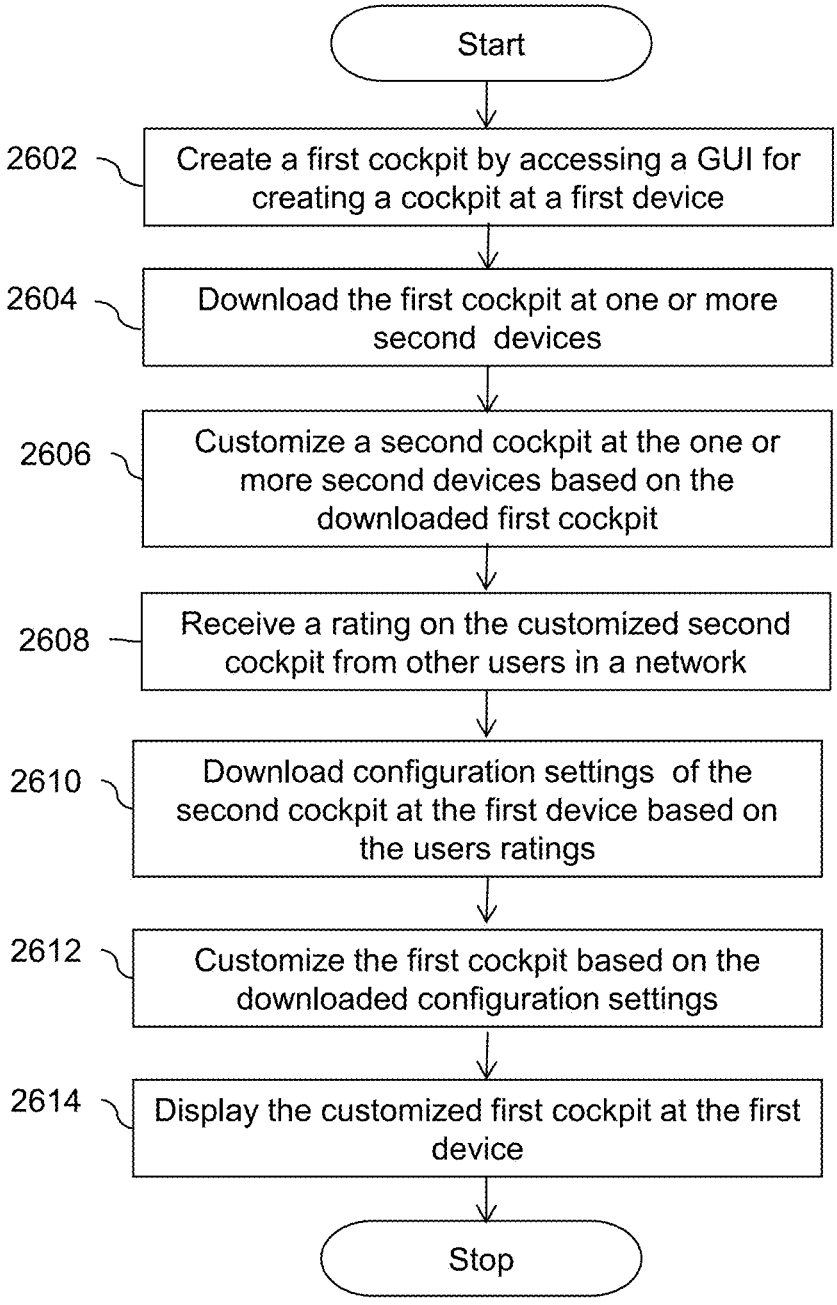

Start
2602
Create a first cockpit by accessing a GUI for creating a cockpit at a first device
2604
Download the first cockpit at one or more second devices
2606
Customize a second cockpit at the one or more second devices based on the downloaded first cockpit
2608
Receive a rating on the customized second cockpit from other users in a network
2610
Download configuration settings of the second cockpit at the first device based on the users ratings
2612
Customize the first cockpit based on the downloaded configuration settings
2614
Display the customized first cockpit at the first device
Stop

FIG. 26

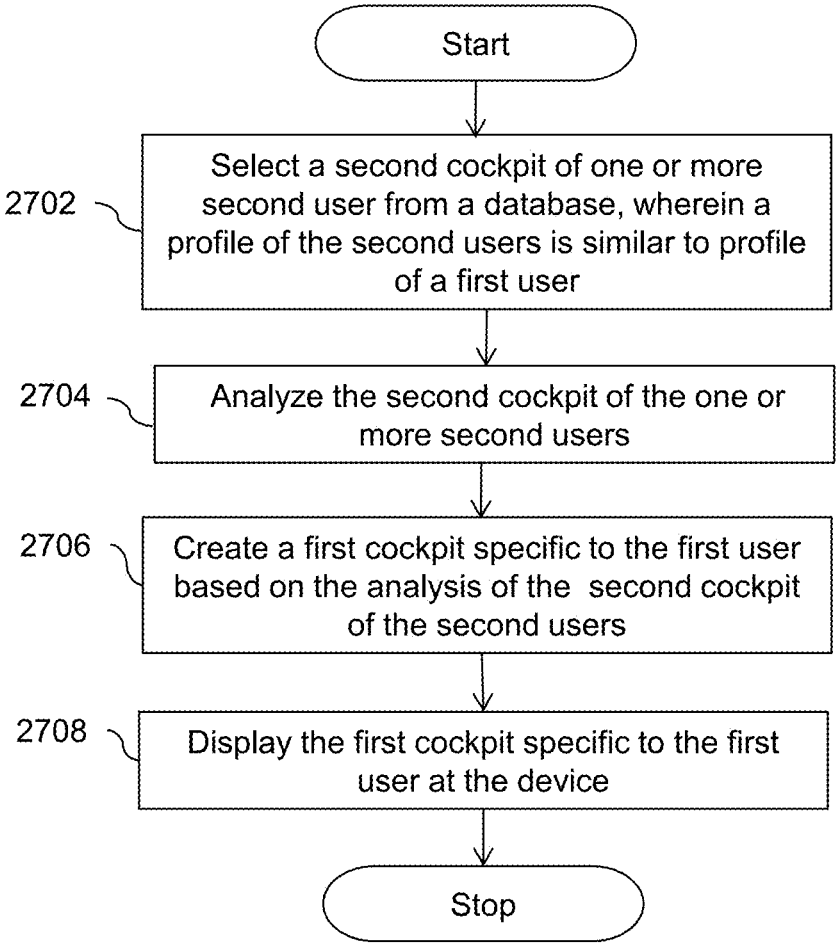

Start
2702
Select a second cockpit of one or more second user from a database, wherein a profile of the second users is similar to profile of a first user
2704
Analyze the second cockpit of the one or more second users
2706
Create a first cockpit specific to the first user based on the analysis of the second cockpit of the second users
2708
Display the first cockpit specific to the first user at the device
Stop

FIG. 27

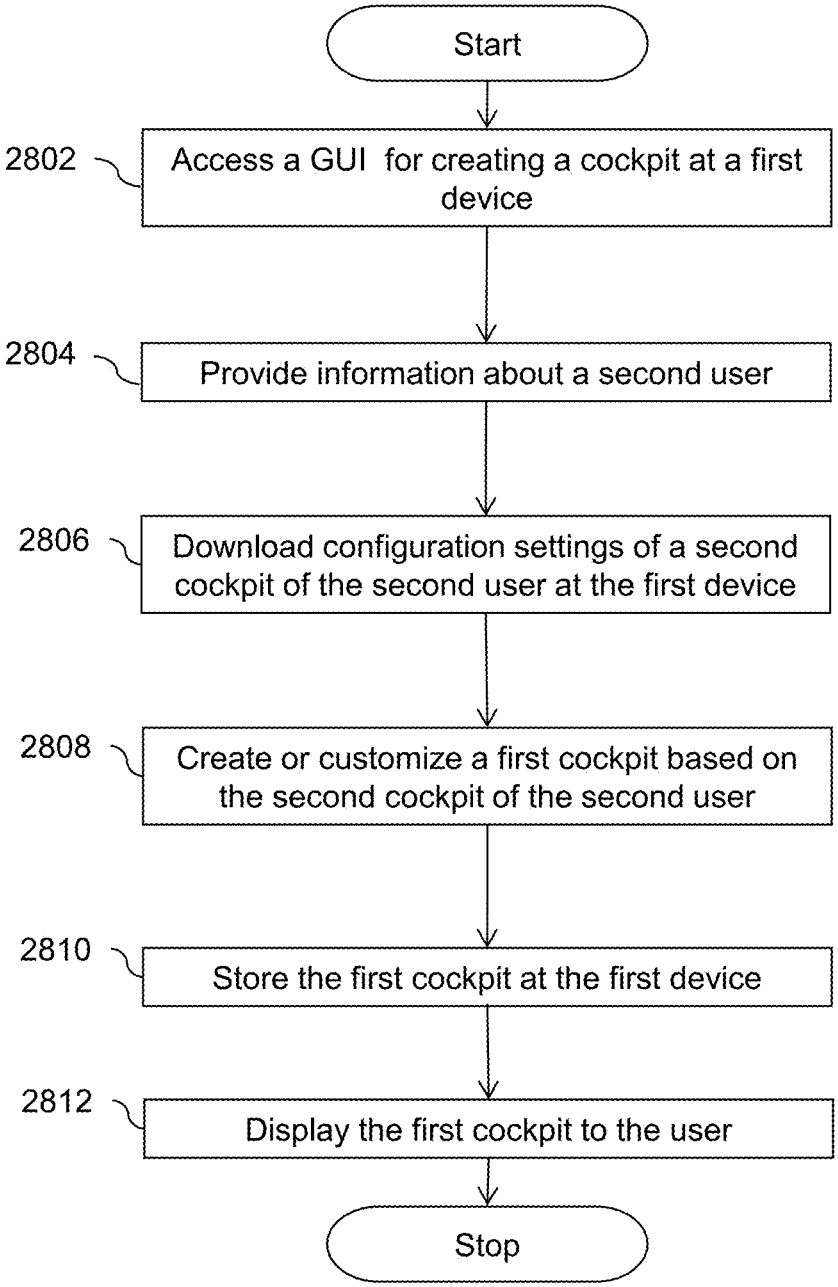

Start
2802
Access a GUI for creating a cockpit at a first device
2804
Provide information about a second user
2806
Download configuration settings of a second cockpit of the second user at the first device
2808
Create or customize a first cockpit based on the second cockpit of the second user
2810
Store the first cockpit at the first device
2812
Display the first cockpit to the user
Stop

FIG. 28

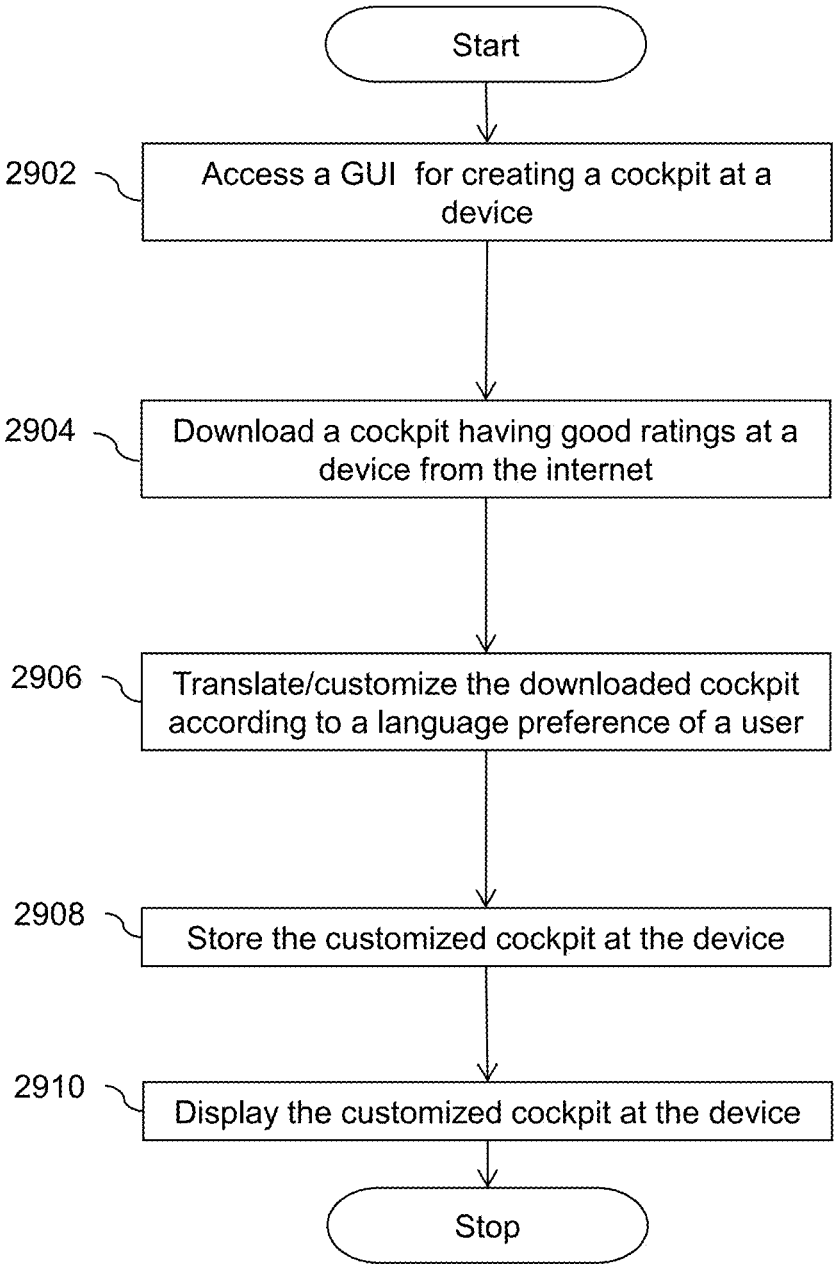

Start
2902
Access a GUI for creating a cockpit at a device
2904
Download a cockpit having good ratings at a device from the internet
2906
Translate/customize the downloaded cockpit according to a language preference of a user
2908
Store the customized cockpit at the device
2910
Display the customized cockpit at the device
Stop

FIG. 29

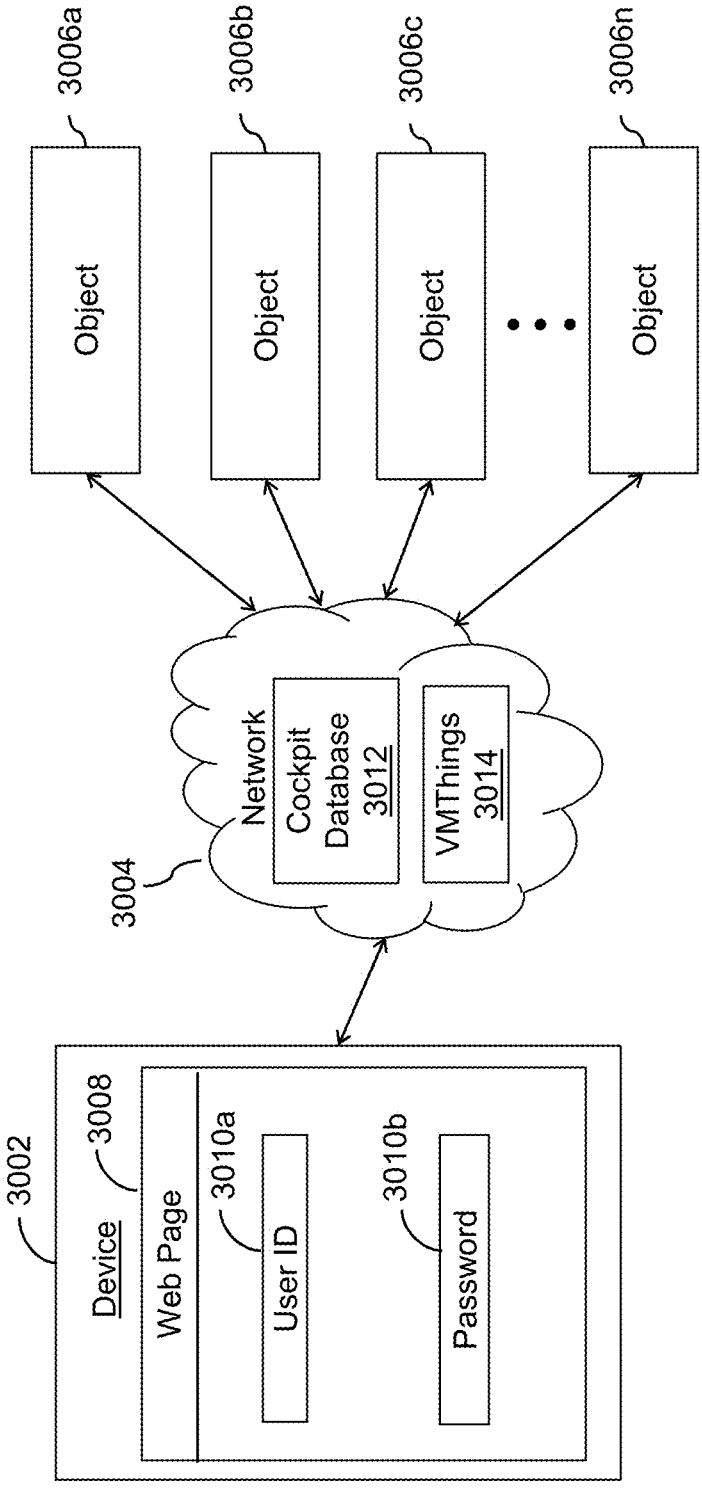

3006a
3006b
3006c
3006n
Object
Object
Object
Object
Network
Cockpit Database 3012
VMThings 3014
3004
3002
Device
3008
Web Page
3010a
User ID
3010b
Password

FIG. 30

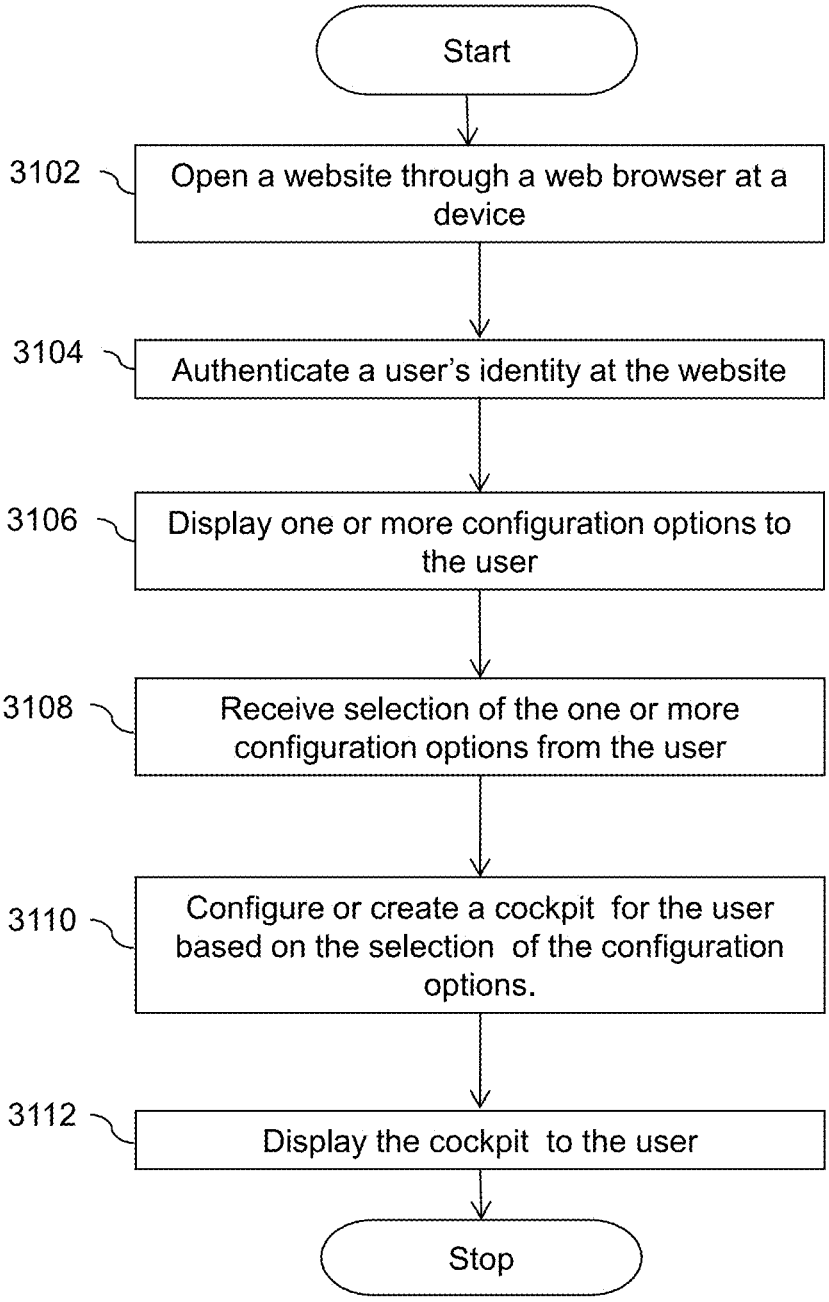

Start
3102
Open a website through a web browser at a device
3104
Authenticate a user's identity at the website
3106
Display one or more configuration options to the user
3108
Receive selection of the one or more configuration options from the user
3110
Configure or create a cockpit for the user based on the selection of the configuration options.
3112
Display the cockpit to the user
Stop

FIG.31

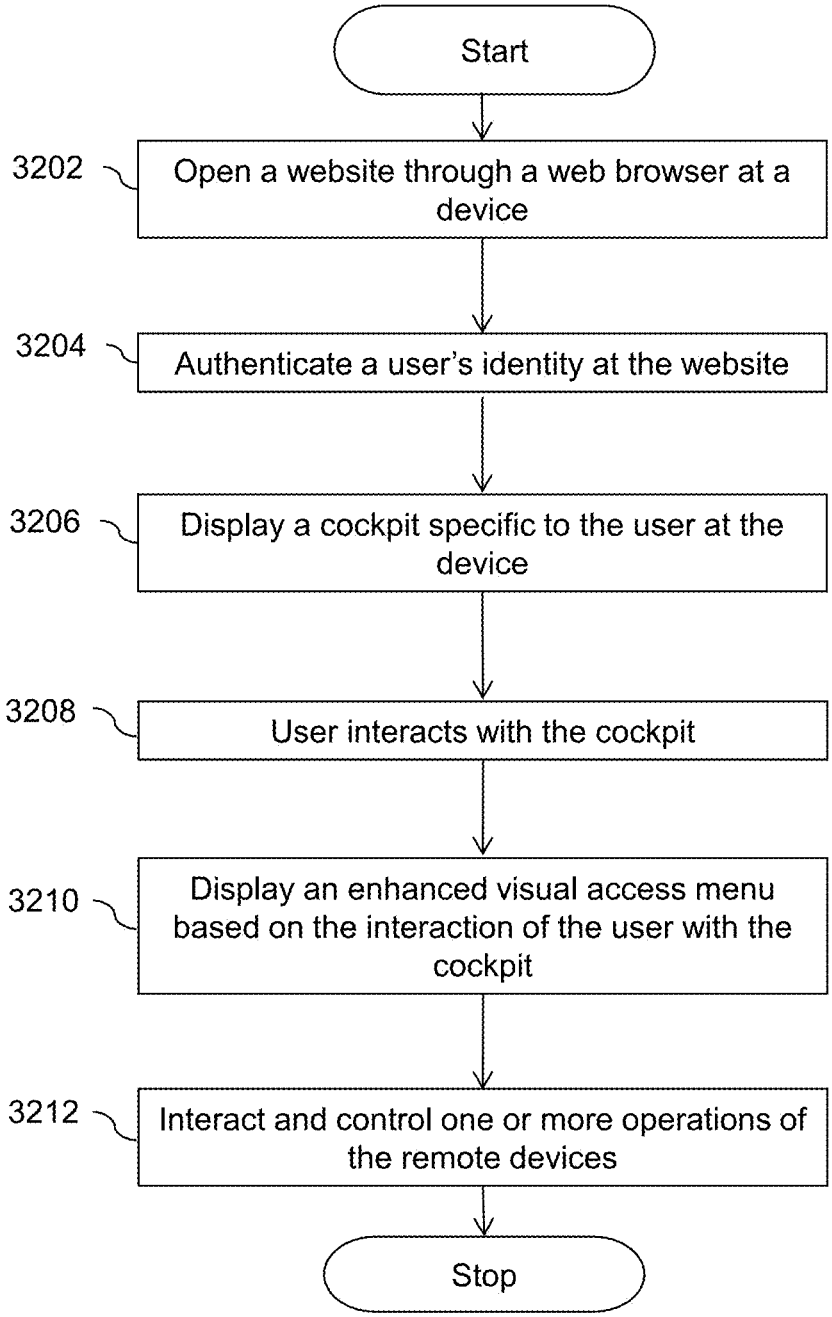

Start
3202
Open a website through a web browser at a device
3204
Authenticate a user's identity at the website
3206
Display a cockpit specific to the user at the device
3208
User interacts with the cockpit
3210
Display an enhanced visual access menu based on the interaction of the user with the cockpit
3212
Interact and control one or more operations of the remote devices
Stop

FIG.32

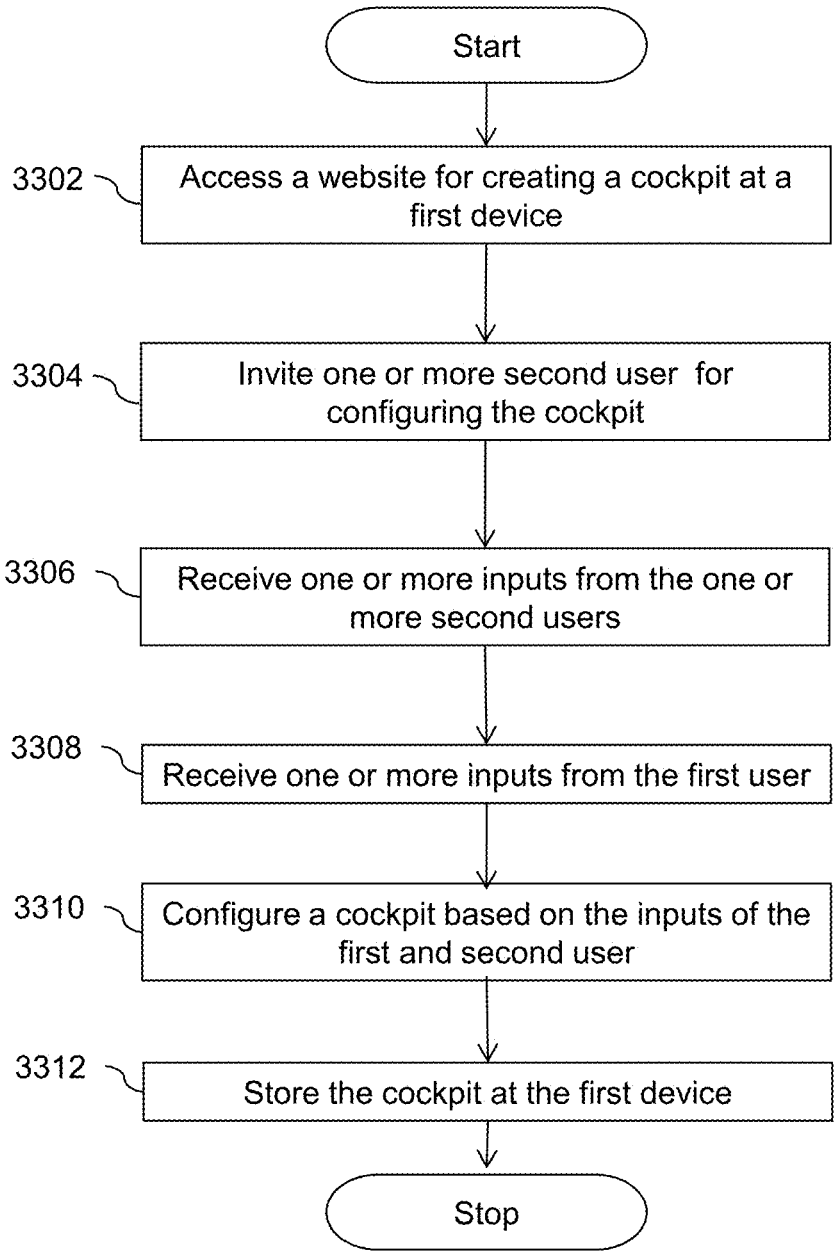

Start
3302
Access a website for creating a cockpit at a first device
3304
Invite one or more second user for configuring the cockpit
3306
Receive one or more inputs from the one or more second users
3308
Receive one or more inputs from the first user
3310
Configure a cockpit based on the inputs of the first and second user
3312
Store the cockpit at the first device
Stop

FIG. 33

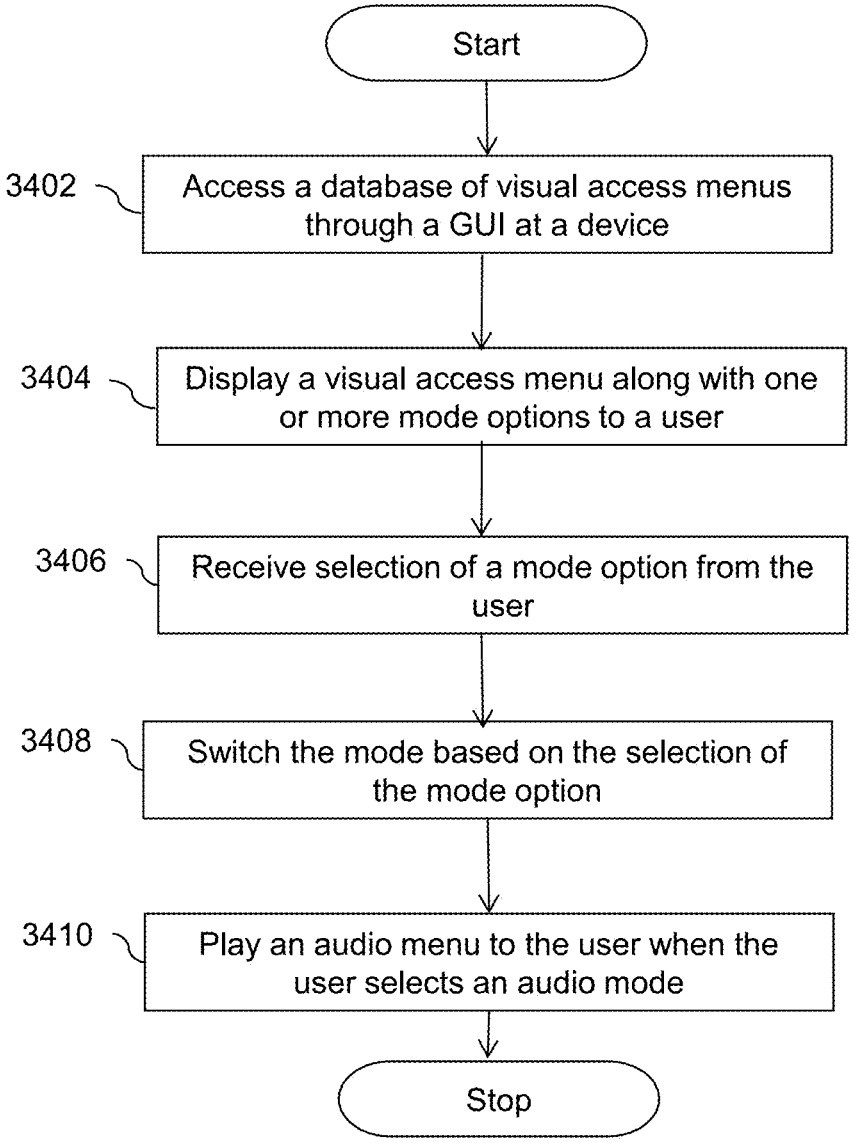

Start
3402
Access a database of visual access menus through a GUI at a device
3404
Display a visual access menu along with one or more mode options to a user
3406
Receive selection of a mode option from the user
3408
Switch the mode based on the selection of the mode option
3410
Play an audio menu to the user when the user selects an audio mode
Stop

FIG. 34

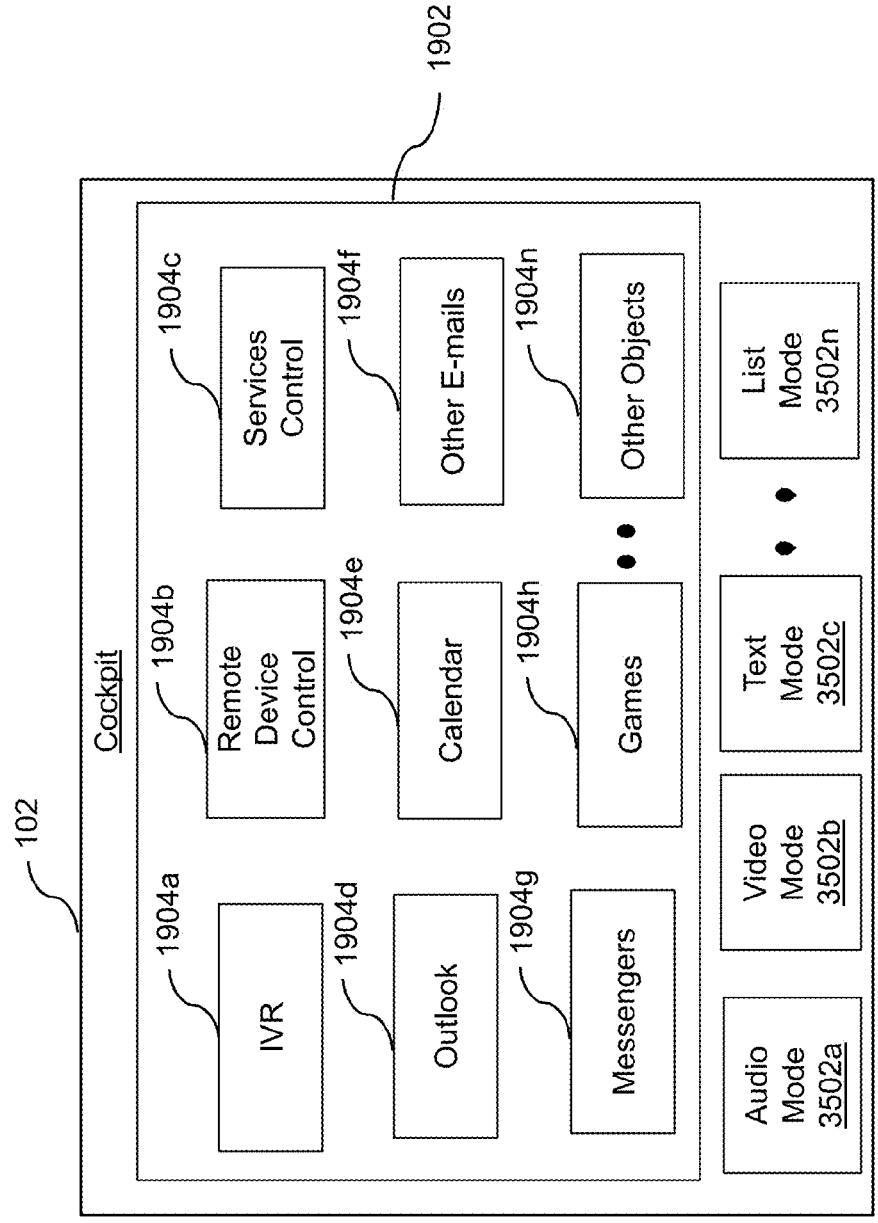

102
Cockpit
1902
1904a
IVR
1904b
Remote Device Control
1904c
Services Control
1904d
Outlook
1904e
Calendar
1904f
Other E-mails
1904g
Messengers
1904h
Games
1904n
Other Objects
Audio Mode 3502a
Video Mode 3502b
Text Mode 3502c
List Mode 3502n

FIG.35A

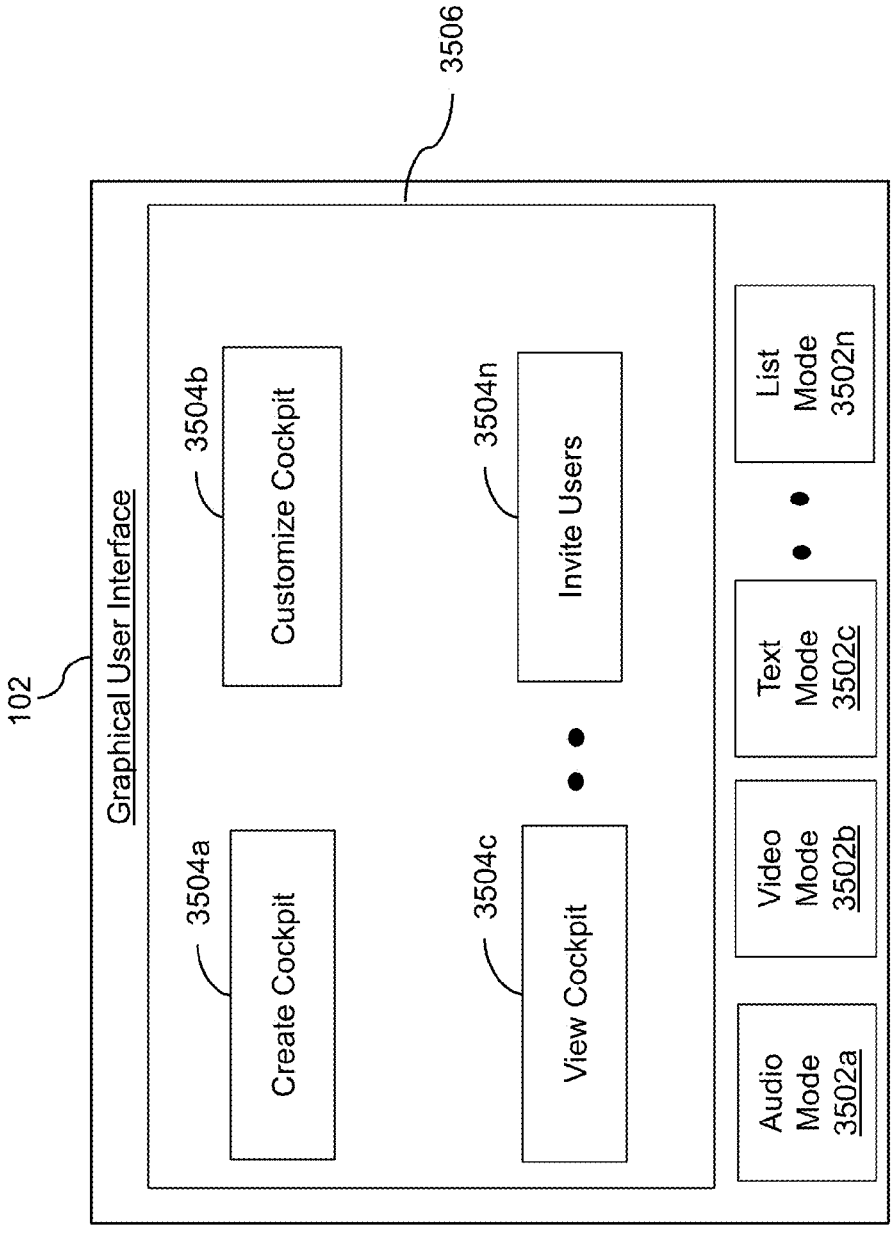

102
Graphical User Interface
3506
3504a
Create Cockpit
3504b
Customize Cockpit
3504c
View Cockpit
3504n
Invite Users
Audio Mode 3502a
Video Mode 3502b
Text Mode 3502c
List Mode 3502n

FIG.35B

SYSTEMS AND METHODS FOR ELECTRONIC COMMUNICATIONS

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a Continuation-In-Part (CIP) of U.S. Non-Provisional application Ser. No. U.S. Ser. No. 13/310,696 entitled 'Systems and Methods for Electronic Communications' filed on Dec. 2, 2011, which is Continuation-In-Part (CIP) of U.S. Non-Provisional application Ser. No. 13/245,804 entitled 'Systems and Methods for Electronic Communications' filed on Sep. 26, 2011, Ser. No. 13/272,212 entitled 'Systems and Methods for Electronic Communications' filed on Oct. 12, 2011, and Ser. No. 13/273,187 entitled 'Systems and Methods for Electronic Communications' filed on Oct. 13, 2011.

FIELD OF THE INVENTION

[0002] The present invention is related to electronic communications in a network and more specifically to systems and method for accessing and controlling one or more objects (physical or virtual) such as remote devices and services from a remote location by a user.

BACKGROUND OF THE INVENTION

[0003] Electronic devices are frequently used in day to day life. The electronic devices may include television, refrigerator, air conditioners, fans, tube lights, cameras or other electronic equipments such as transmitters, antennas etc. All the electronic devices consume power regularly or at frequent intervals of time. For efficient power consumption, the electronic devices must be controlled or switched ON/OFF.

[0004] Appliances such as fans, tube lights or microwave may be controlled by regulating the electrical parameters associated with the appliances. For example, a user may control speed of fan, regulate operating power of the microwave as per requirement. However, it requires physical presence of the user to regulate or switch ON/OFF the appliances. A technique for controlling the appliances by a remote control device is well known. The remote control device may transmit signals for controlling the appliances. For example, the remote control device may simultaneously control air conditioners, fans or cameras as per the requirement. However, the technique is limited by location of the user. Moreover, the technique is incapable of updating the real-time status of the appliances to the user.

[0005] Another available technique discloses a smart device for controlling the appliances. The smart device is configured with internet and connected with the appliances. A user connected with the smart device via the internet may control the appliances from a remote location. Moreover, the user may control the appliances by connecting with processing device via communication channel. The processing device may be located nearby to the smart device and may further receive signals from the user to control the appliances. However, the technique requires installation of a smart device and/or processing device for controlling the appliances from a remote location.

[0006] Another available technique discloses real-time position monitoring of vehicles. The user may monitor real time coordinates of the vehicles based on the information received from a transmitter located in the vehicle. The user receives the position coordinates from the transmitter via a GPS server **114**. However, the user is unable to control or update the positional coordinates of the vehicle as per choice.

[0007] In light of the above discussion, systems and methods are desired for providing real-time control of the electronic devices and services from a remote location.

SUMMARY

[0008] Embodiments of the invention provide a server for enhancing interaction with Internet of Things. The server includes a processor and a memory coupled to the processor. The memory includes a database comprising one or more options corresponding to each of the things. Further, the memory includes one or more instructions executable by the processor for providing the one or more options to a user for enabling the user to select at least one option therefrom. Further, the memory includes one or more instructions executable by the processor to receive information corresponding to the selection of the at least one option by the user. Furthermore, the memory includes one or more instructions executable by the processor to configure a visual menu based on the received information. Herein, the at least one visual menu may enable a user to control the puarlity of Internet of Things (IoT) devices irrespective of their locations.

[0009] Hereinbove, the plurality of Internet of Things (IoT) devices consist of a plurality of electronics devices, a plurality of kitchen appliances, a plurality of vehicles, or a combination thereof. Further, the configured visual menu may be stored in the database.

[0010] Embodiments of the invention further provide a device for enhancing interaction with Internet of Things through a server in a communication network. The device includes a processor and a memory coupled to the processor. The memory includes a database and one or more instructions executable by the processor for accessing one or more options corresponding to each of the things. The one or more options are accessed from the server. Further, the one or more instructions select at least one option from the one or more options. The at least one options is selected to configure a visual menu. Further, in this embodiment, the device may include a display screen to provide the configured visual menu to the user.

[0011] Further, embodiments of the invention provide a system for enhancing interaction with Internet of Things in a communication network. The system includes a server including one or more options corresponding to the things. Further, the system includes a device communicably coupled to the server through the communication network. The device configured for enabling a user to access the one or more options to select at least one option therefrom. The at least one option is selected to configure a visual menu corresponding to the things. Here, the user is enabled to access the one or more options by authenticating with the server.

[0012] Additionally, embodiments of the invention provide a server for enhancing interaction with Internet of Things. The server includes a processor and a memory coupled to the processor. The memory includes a database including one or more visual menus corresponding to each of the things. Further, the memory includes one or more instructions executable by the processor for providing a visual menu, from the one or more visual menus, to a user for enabling the user to interact with the visual menu.

Further, the one or more instructions provide an enhanced visual menu based on the interaction of the user with the visual menu. Furthermore, the one or more instructions enable the user to interact with the enhanced visual menu to control one or more operations corresponding to the things.

[0013] Embodiments of the invention provide a system for enhancing interaction of a user with objects connected to a network. The system includes a processor, a display screen, and a memory coupled to the processor. The memory comprises a database including a list of two or more objects and instructions executable by the processor to display a menu on the display screen. The menu is associated with at least two independent objects. Further, the two independent objects are produced by at least two independent vendors.

[0014] Embodiments of the invention further provide a system for enhancing interaction of a user with objects connected to a network. The system includes a processor, a display screen and a memory coupled to the processor. The memory includes a database comprising a list of one or more objects and instructions executable by the processor to display the objects to the user through the display screen. The menu includes icon which may indicate one object made by a vendor. Further, the icon is substantially different than the one provided by said vendor.

[0015] Herein, the objects may include at least one of one or more services and one or more remote devices that may be controlled by the user. Further, a service provider ('vendor') may provide one or more services that may be utilized by the user by managing the corresponding objects.

[0016] Further, embodiments of the invention provide a system for enhancing interaction with the Internet of Things. The system includes a processor and a memory coupled to the processor. The memory includes a database including one or more options corresponding to each of the Internet of Things. Further, the memory includes instructions to share at least one of the one or more options with one or more users of the things. Furthermore, the memory includes instructions to receive information corresponding to selection of the at least one option by the one or more users. Additionally, the memory includes instructions to update the database based on the selection of the at least one option by the one or more users. The instructions are executable by the processor.

[0017] Here, the one or more users may be referred to users of one or more second devices. In an embodiment, a user of a first device (hereinafter may be referred to as 'first user') may share the one or more options, corresponding to the Internet of things, with the users of the second devices (hereinafter may be referred to as 'the second users'). The one or more options may be shared by defining rights for the second users for enabling them to control the Internet of Things. Further, the one or more options may be shared with the second users to enable them to personalize the one or more options according to their preferences. According to the rights defined by the first user, the second users may perform one or more operations, for controlling the Internet of Things, by selecting at least one option from the one or more options.

[0018] Additionally, the one or more options may be shared for a specific time and on the occurrence of a specific event that may be defined by the first user. The second users may modify the shared one or more options as per their preferences. Further, the first user may be enabled to discard such modifications.

[0019] Furthermore, embodiments of the invention provide a system for enhancing interaction with the Internet of Things. The system includes a processor and a memory coupled to the processor. The memory includes a database having a visual menu corresponding to the things. Further, the memory includes instructions executable by the processor to share the visual menu with one or more second users of the things. The one or more second users correspond to one or more second devices. Furthermore, the memory includes instructions executable by the processor to translate the visual menu based on one or more preferences of the one or more second users. Additionally, the memory includes Instructions executable by the processor to display the translated visual menu to the second users at the corresponding second devices.

[0020] Herein, the visual menu is shared with the one or more second users by defining rights for enabling the second users to perform one or more operations corresponding to the things. The one or more operations being performed by selecting one or more icons present in the visual menu.

[0021] Furthermore, embodiments of the invention provide a device for enhancing interaction with the Internet of Things. The device includes a processor and a memory coupled to the processor. The memory includes a database and instructions executable by the processor. The database includes one or more options corresponding to the things. Further, the instructions share at least one of the one or more options with one or more users of the things. Furthermore, instructions receive information corresponding to selection of the at least one option by the one or more users. Additionally, instructions update the database based on the selection of the at least one option by the one or more users.

[0022] Herein, the one or more users may be referred to users of one or more second devices. In this embodiment, a user of a first device (hereinafter may be referred to as 'first user') may share the one or more options, corresponding to the Internet of things, with the users of the second devices (hereinafter may be referred to as 'the second users'). The one or more options may be shared by defining rights for the second users for enabling them to control the Internet of Things. Further, the one or more options may be shared with the second users to enable them to personalize the one or more options according to their preferences. Additionally, the memory further includes instructions to receive permission request from the one or more users. The request is received for enabling the one or more users to personalize the at least one option.

[0023] Embodiments of the invention provide a method for accessing and controlling remote devices in a network. The method includes accessing a database of visual access menus through a graphical user interface (GUI) at a device. Further, the method includes displaying a visual access menu at the device. The visual access menu may include one or more options. The device may include an Internet of Things application such as a VMThings for displaying the visual access menu at the device. The VMThings also enables a user of the device to control the remote devices. The VMThings may be configured to create an Internet of Things menu including representations of recognizable objects. The objects may be physical objects or virtual objects. The Internet of Things menu may be a menu of identifiable objects (physical or virtual objects) connected in an Internet like structure. The user may control the remote devices irrespective of the location of the remote devices

through the visual access menu. The user may select an option from the visual access menu. The method further includes displaying an enhanced visual access menu based on a selection of an option received from the user. The enhanced visual access menu may include one or more device options depending on the selection of the option. The device options are representation corresponding to the remote devices. The method further includes receiving a selection of a device option from the user. The method further includes connecting to a remote device based on the selection of the device option. Further, the method includes controlling the one or more operations of the connected remote device based on the selection of the device option.

[0024] Embodiments of the invention provide a method for accessing and controlling services from a remote location. The method includes accessing, by a user of a device, a database of visual access menus through a graphical user interface (GUI) at the device. Further, the method includes displaying a visual access menu at the device. The visual access menu may include one or more options. The device may include an Internet of Things application i.e. a VMThings for displaying the visual access menu at the device. Further, the VMThings may create an Internet of Things menu including one or more identifiable objects connected to each other in an Internet like structure. The VMThings may display visual access menu at the device to enable the user to control the remote services. The method further includes displaying an enhanced visual access menu based on a selection of an option received from the user. The enhanced visual access menu may include one or more service options depending on the selection of the option. The service options are representation corresponding to the services. The method further includes receiving a selection of a service option from the user. The method further includes connecting to a service based on the selection of the service option. Further, the method includes connecting the device to the service. Furthermore, the method includes controlling and displaying information about the service at the device based on the selection of the service option.

[0025] Embodiments of the invention also provide a device for accessing and controlling remote devices in a network. The device may include an Internet of Things application i.e. a VMThings configured to enable a user of the device to access a database including visual access menus through a GUI. Further, the VMThings is configured to create an Internet of Things menu including one or more identifiable objects connected in an Internet like structure. The VMThings may display a visual access menu including one or more options at the device. Further, the VMThings may display an enhanced visual access menu at the device based on a selection of an option received from the user. The enhanced visual access menu may include one or more device options depending on the selection of the option. The device options are representation corresponding to the remote devices. The VMThings may further receive a selection of a device option from the user. The VMThings may also connect the device to a remote device based on the selection of the device option. The VMThings may control one or more operations of the connected remote device based on the selection of the device option.

[0026] Embodiments of the invention also provide a device for accessing and controlling services in a network from a remote location. The device may include an Internet of Things application such as a VMThings configured to enable a user of the device to access a database including visual access menus through a GUI. The VMThings is also configured to display a visual access menu including one or more options at the device. Further, the VMThings may display an enhanced visual access menu at the device based on a selection of an option received from the user. The enhanced visual access menu may include one or more service options depending on the selection of the option. The service options are representation corresponding to the services located remotely. The VMThings may further receive a selection of a service option from the user. The VMThings may also connect the device to a service based on the selection of the service option. The VMThings may control and display information of the service t the device based on the selection of the service option.

[0027] Embodiments of the invention also provide a system for accessing and controlling remote devices. The system includes a display device configured to display one or more visual access menus. Further, the system includes an access device connected to the display device. The access device may include an Internet of Things application i.e. a VMThings configured to display the one or more visual access menus including one or more options to control the remote devices, at the display device. The user may create or configure an Internet of Things menu through a Graphical User Interface at the device. In an embodiment of the invention, the VMThings may be configured to create the Internet of Things menu. The VMThings is further configured to enable a user of the access device to access a database including the visual access menus through a GUI. The VMThings may display an enhanced visual access menu at the device based on a selection of an option received from the user. The enhanced visual access menu may include one or more device options depending on the selection of the option. The device options are representation corresponding to the remote devices. The VMThings may further receive a selection of a device option from the user. The VMThings may also connect the device to a remote device based on the selection of the device option. The VMThings may control one or more operations of the connected remote device based on the selection of the device option.

[0028] Embodiments of the invention also provide a system for accessing and controlling services in a network from a remote location. The system may include a display device configured to display one or more visual access menus. Further, the system may include an access device connected to the display device. The access device may include an Internet of Things application i.e. a VMThings configured to display the one or more visual access menus including one or more options to control the remote devices at the display device. The VMThings is further configured to enable a user of the access device to access a database including the visual access menus through a Graphical User Interface (GUI). The GUI may be used for creating an Internet of Things Menu including a plurality of identifiable objects in a network like structure. The identifiable objects may be physical objects or virtual objects. Further, the VMThings may display an enhanced visual access menu at the device based on a selection of the option received from the user. The enhanced visual access menu may include one or more service options depending on the selection of the option. The service options are representation corresponding to the services. The VMThings may further receive a selection of a service option from the user. The VMThings may also connect the

device to a remote device based on the selection of the service option. The VMThings may control and display information about the service based on the selection of the service option.

[0029] Embodiments of the invention further provide a method for accessing and controlling the remote devices in a network through a web browser. The method includes opening a webpage in the web browser at a device including a VMThings. The method may further include displaying a visual access menu at the device. The VMThings may create or display the visual access menu or an Internet of Things menu at the device. The Internet of Things menu may include a plurality of representations corresponding to identifiable objects. The identifiable objects may be physical objects or virtual objects. The visual access menu may include one or more options. Further, the method includes displaying an enhanced visual access menu at the device based on a selection of an option received from the user. The enhanced visual access menu may include one or more device options depending on the selection of the option. The device options are representation corresponding to the remote devices. The method further includes receiving a selection of a device option from the user. The method further includes connecting to a remote device based on the selection of the device option. Further, the method includes connecting the device to the remote device based on the selection of the device option. Further, the method includes controlling the one or more operations of the connected remote device based on the selection of the device option.

[0030] Embodiments of the invention further provide a method for accessing and controlling the services in a network through a web browser. The method includes opening a webpage in the web browser at a device including an Internet of Things application i.e. a VMThings. The VMThings is configured to enable a user of the device to access a database including the visual access menus through a GUI. The method further includes displaying a visual access menu at the device. The VMThings may display the visual access menu at the device. The visual access menu may include one or more options. Further, the method includes displaying an enhanced visual access menu at the device based on a selection of an option received from the user. The enhanced visual access menu may include one or more service options depending on the selection of the option. The service options are representation corresponding to the service. The method further includes receiving a selection of a service option from the user. The method further includes connecting to a service based on the selection of the service option. Further, the method includes connecting the device to the remote device based on the selection of the service option. Further, the method includes controlling and displaying the information of the service based on the selection of the service option.

[0031] An aspect of the invention is to enable a user to control one or more operations of the remote devices or services through voice commands or gestures or hand movements. For example, the user may switch on an air conditioner (AC) by showing a thumb up gesture in front of the device. The device may include a camera to detect the gesture. The VMThings at the device (or access device) may analyze the gesture and control a remote device based on the analysis.

[0032] An aspect of the invention is to transfer display of a device to another device. The other device may be connected to the device through wireless means.

[0033] Another aspect of the invention is to create a data base of visual access menus or enhanced visual access menus. The visual access menus or the enhanced visual access menus are the visual menus for controlling one or more objects such as, but are not limited to, remote devices, services, and so forth.

BRIEF DESCRIPTION OF THE DRAWINGS

[0034] Having thus described the invention in general terms, reference will now be made to the accompanying drawings, which are not necessarily drawn to scale, and wherein:

[0035] FIG. **1**A illustrates an exemplary environment, in accordance with an first embodiment of the invention;

[0036] FIG. **1**B illustrates another exemplary environment, in accordance with the first embodiment of the invention;

[0037] FIG. **1**C illustrates yet another exemplary environment, in accordance with the first embodiment of the invention;

[0038] FIG. **1**D illustrates an environment based on a ZigBee network, in accordance with the first embodiment of the invention;

[0039] FIG. **1**E illustrates an environment based on a WiMAX network, in accordance with the first embodiment of the invention;

[0040] FIG. **1**F illustrates an environment based on a Global System for Mobile Communication (GSM) network, in accordance with the first embodiment of the invention;

[0041] FIG. **1**G illustrates an environment based on a ZigBee network, in accordance with the first embodiment of the invention;

[0042] FIG. **1**H illustrates an environment based on a WiMAX network, in accordance with the first embodiment of the invention;

[0043] FIG. **1**I illustrates an environment based on a combination of a local network and the Internet, in accordance with the first embodiment of the invention;

[0044] FIG. **2**A illustrates an exemplary environment, in accordance with a second embodiment of the invention;

[0045] FIG. **2**B illustrates another exemplary environment, in accordance with the second embodiment of the invention;

[0046] FIG. **2**C illustrates yet another exemplary environment, in accordance with the second embodiment of the invention;

[0047] FIG. **2**D illustrates an environment based on a ZigBee network, in accordance with the second embodiment of the invention;

[0048] FIG. **2**E illustrates an environment based on a WiMAX network, in accordance with the second embodiment of the invention;

[0049] FIG. **2**F illustrates an environment based on a GSM network, in accordance with the second embodiment of the invention;

[0050] FIG. **2**G illustrates an environment based on a ZigBee network, in accordance with the second embodiment of the invention;

[0051] FIG. **2**H illustrates an environment based on a WiMAX network, in accordance with the second embodiment of the invention;

[0052] FIG. **2**I illustrates an environment based on a combination of a local network and the Internet, in accordance with the second embodiment of the invention;

[0053] FIG. **3**A illustrates an exemplary visual access menu and enhanced visual access menu at a device, in accordance with the first embodiment of the invention;

[0054] FIG. **3**B illustrates an exemplary visual access menu and enhanced visual access menu at the device, in accordance with second embodiment of the invention;

[0055] FIG. **3**C illustrates another exemplary visual access menu and enhanced visual access menu at the device, in accordance with first embodiment of the invention;

[0056] FIG. **3**D illustrates another exemplary visual access menu and enhanced visual access menu at the device, in accordance with second embodiment of the invention;

[0057] FIG. **4** illustrates an exemplary enhanced visual access menu including one or more device options, in accordance with an embodiment of the invention.

[0058] FIG. **5** illustrates an exemplary enhanced visual access menu including one or more service options, in accordance with an embodiment of the invention.

[0059] FIG. **6** illustrates exemplary components of a device, in accordance with an embodiment of the invention;

[0060] FIG. **7** illustrates exemplary components of an access device, in accordance with an embodiment of the invention;

[0061] FIG. **8** illustrates a flow diagram for controlling remote devices, in accordance with an embodiment of the invention;

[0062] FIG. **9** illustrates a flow diagram for controlling remote services, in accordance with an embodiment of the invention;

[0063] FIGS. **10**A, **10**B, and **10**C illustrate a flow diagram for controlling objects by using a device in a network, in accordance with an embodiment of the invention;

[0064] FIG. **11** illustrates a flow diagram for controlling remote devices by using a web browser at a device, in accordance with an embodiment of the invention;

[0065] FIG. **12** illustrates a flow diagram for controlling remote services by using a web browser at a device, in accordance with an embodiment of the invention;

[0066] FIGS. **13**A, **13**B, and **13**C illustrate a flow diagram for controlling objects in a network through a web browser at a device, in accordance with an embodiment of the invention; and

[0067] FIG. **14** illustrates a flow diagram for controlling remote devices through a website, in accordance with another embodiment of the invention;

[0068] FIG. **15** illustrates a flow diagram for controlling remote devices by using an access device in a network, in accordance with an embodiment of the invention;

[0069] FIG. **16** illustrates a flow diagram for controlling remote services by using an access device in a network, in accordance with an embodiment of the invention;

[0070] FIGS. **17**A, **17**B, and **17**C illustrate a flow diagram for controlling objects in a network devices through an access device, in accordance with an embodiment of the invention;

[0071] FIG. **18**A illustrates an exemplary display of images of remote devices, in an embodiment of the invention;

[0072] FIG. **18**B illustrates transfer of an exemplary display of images from a device to another device, in an embodiment of the invention;

[0073] FIG. **19** illustrates an exemplary display of a cockpit **1902** at the device **102**, in accordance with an embodiment of the invention;

[0074] FIGS. **20**A-**20**B illustrate exemplary environments for providing access of the cockpit **1902** of a user to other users, in accordance with an embodiment of the invention;

[0075] FIG. **21** illustrates a flow diagram for providing access control of a cockpit to one or more second users, in accordance with an embodiment of the invention; and

[0076] FIGS. **22**A-**22**B illustrate a flow diagram for providing access control of the cockpit to one or more second users, in accordance with another embodiment of the invention;

[0077] FIG. **23** illustrates a flow diagram for configuring a cockpit based on user's preference, in accordance with an embodiment of the invention;

[0078] FIG. **24** illustrates a flow diagram for configuring a cockpit, in accordance with an embodiment of the invention;

[0079] FIG. **25** illustrates a flow diagram for customizing a cockpit based on other users' reviews, in accordance with an embodiment of the invention;

[0080] FIG. **26** illustrates a flow diagram for downloading and customizing a cockpit at a second device, in accordance with an embodiment of the invention;

[0081] FIG. **27** illustrates a flow diagram for configuring a cockpit based on another cockpit of other user, in accordance with an embodiment of the invention;

[0082] FIG. **28** illustrates a flow diagram for configuring a cockpit based on another cockpit of other user, in accordance with another embodiment of the invention;

[0083] FIG. **29** illustrates a flowchart for downloading a cockpit from a network, in accordance with an embodiment of the invention;

[0084] FIG. **30** illustrates an environment for accessing a cockpit through a website, in accordance with an embodiment of the invention;

[0085] FIG. **31** illustrates a flow diagram for configuring a cockpit through a website, in accordance with an embodiment of the invention;

[0086] FIG. **32** illustrates a flow diagram for accessing a cockpit through a website, in accordance with an embodiment of the invention;

[0087] FIG. **33** illustrates a flow diagram for configuring a cockpit with the help of other users, in accordance with an embodiment of the invention;

[0088] FIG. **34** illustrates a flow diagram for switching a display mode of a cockpit, in accordance with an embodiment of the invention; and

[0089] FIGS. **35**A-**35**B illustrate an exemplary display of a GUI along with one or more mode options, in accordance with an embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0090] Illustrative embodiments of the invention now will be described more fully hereinafter with reference to the accompanying drawings, in which some, but not all embodiments of the invention are shown. Indeed, the invention may be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided so that this disclosure will satisfy applicable legal requirements. Like numbers refer to like elements throughout.

[0091] FIG. **1**A illustrates an exemplary environment **100**, in accordance with a first embodiment of the invention. The first embodiment describes functionality of an Internet of Things application i.e. a VMThings **108** for controlling a plurality of remote devices **106***a-n*. A user may create or configure an Internet of Things menu or cockpit for accessing or controlling the plurality of remote devices **106***a-n* at a device **102**. In an embodiment of the invention, the VMThings **108** may configure or create the Internet of Things menu or the cockpit. The Internet of Things menu may include representations of one or more recognizable or identifiable objects such as, but are not limited to, remote devices **106***a-n* or services in an Internet or network like structure. The one or more identifiable objects may be physical or virtual objects. In an embodiment of the invention, a graphical user interface (GUI) may be used by the user for creating the Internet of Things Menu. The objects may be the remote devices **106***a-n* or services. The user may use the device **102** for connecting to a plurality of remote devices **106***a-n* through a network **104** through the Internet of Things menu. The device **102** may be used by the user to control a plurality of objects in the network **104**. The VMThings **108** may control one or more operations of the plurality of objects. In an embodiment of the invention, the objects may include remote devices **106***a-n*. In another embodiment of the invention, the objects may be services as described in FIG. **2**A-I. In yet another embodiment of the invention, the objects may be combination of the remote devices **106***a-n* and services. In an embodiment of the invention, the device **102** can be a portable device capable of communicating and connecting to other devices such as the remote devices **106***a-n*. The device **102** may have a display screen. In an embodiment of the invention, the device **102** may have a limited display or may not have a display at all. Example of the device **102** may include a mobile phone, a smart phone, a computer, a personal digital assistant (PDA), a tablet computer, a laptop, and so forth.

[0092] The network **104** can be a wired network or a wireless network or a combination of these. The wireless network may use wireless technologies to provide connectivity among various devices. Examples of the wireless technologies include, but are not limited to, Wi-Fi, WiMAX, fixed wireless data, ZigBee, Radio Frequency **4** for Consumer Electronics network (RF4CE), Home RF, IEEE 802.11, 4G or Long Term Evolution (LTE), Bluetooth, Infrared, spread-spectrum, Near Field Communication (NFC), Global Systems for Mobile communication (GSM), Digital-Advanced Mobile Phone Service (D-AMPS). The device **102** is connected to the plurality of remote devices **106***a-n* through the network **104**. Examples of the wired network include, but are not limited to, Local Area Network (LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), and so forth. In an embodiment of the invention, the network **104** is the Internet.

[0093] The plurality of remote devices **106***a-n* can be electronic equipments such as, but are not limited to, household devices including electric lights, water pump, generator, fans, television (TV), cameras, microwave, doors, windows, computer, or garage locks, security systems, air-conditioners (AC), and so forth. In an embodiment of the invention, the plurality of the remote devices **106***a-n* can be vehicles such as cars, trucks, vans, and so forth. In an embodiment of the invention, the VMThings **108** may present a standard menu (or a standard visual access menu) for controlling all remote devices **106***a-n* to the user. The user may be provided with different visual access menus based on the location of the remote devices **106***a-n*. For example, the user may be displayed with different visual access menus for remote devices present in office, home, factory, and so forth. In another embodiment of the invention, the VMThings **108** may display a customized menu at the device **102** based on user preferences and/or access pattern. In an embodiment of the invention, the user may configure the VMThings **108** to control remote devices **106***a-n* present in more than one building. The buildings may be present at different locations. Similarly, the user may control the one or more remote devices **106***a-n* located in his/her office from the home. For example, the user may control door of his/her office cabin, may switch on or switch off his/her office computer/laptop, AC, and so forth. In an embodiment of the invention, the user may control operations of one or more remote devices **106***a-n* present in a factory from the home. Further, the user may access the plurality of remote devices **106***a-n* from a remote location by using the device **102**. Further, the user may use the same device **102** for controlling the remote devices located at different locations such as office, factory, home, etc. The user doesn't have to carry different or multiple devices for controlling different remote devices **106***a-n*. The device **102** may include a database including a list of one or more objects. In an embodiment of the invention, the device **102** may include audio or visual menus of the one or more objects i.e. of the remote devices **106***a-n*. The device **102** may include visual access menus and/or enhanced visual access menus corresponding to various objects. The visual access menu may provide an interface to the user to control the one or more objects such as remote devices **106***a-n*. The visual access menu may include one or more options such as, but are not limited to a remote devices option, services option, and so forth. In an embodiment of the invention, the visual access menus at the device **102** may be updated regularly at predefined time interval such as after every two days, or once a week. The enhanced visual access menus may include one or more device options. In an embodiment of the invention, the device **102** may include a touch sensitive display. In such a scenario, the user may access the one or more options or the device options by touching the options directly. In an embodiment of the invention, the user may connect to the one or more objects such as the remote devices **106***a-n* through applications such as, but are not limited to, Skype, Google Talk, Yahoo Messenger, Magic Jack, and so forth.

[0094] Further, the device **102** may include the VMThings **108** which is configured to enable the user to access the visual access menus through a Graphical User Interface (GUI) at the device **102**. The VMThings **108** may enable the user to control the remote devices **106***a-n* irrespective of their location through the network **104**. The VMThings **108** may display the one or more visual access menus at the device **102**. Further, the device **102** may include visual access menus associated with at least two independent objects. In an embodiment of the invention, the two at least two independent objects may be produced by two independent vendors, In an embodiment of the invention, the device may include vendor specific visual access menus or enhanced visual access menus for the remote devices **106***a-n*. Further, the device **102** may also include standard menu(s) for accessing the objects. The VMThings **108** may display

the visual access menu depending on the independent vendor(s) of the one or more objects. In another embodiment of the invention, the VMThings **108** may display a visual access menu which is not provided by either of the at least two independent vendors of the at least two independent objects. In an embodiment of the invention, the user may access and control one or more of the remote devices **106***a-n* from the remote location by using the device **102**. For example, the user may use his smart phone to access and operate a microwave at his/her home from his/her office. Further, the user can use the device **102** at one location to monitor and regulate one or more operations of the remote devices **106***a-n* present at another location. The one or more operations may be, such as, but are not limited to, switch on, switch off, regulate, and so forth.

[0095] Further, the visual access menus may include at least one icon indicating one or more objects such as the remote devices **106***a-n*. Further, the icon is substantially different than the icons provided in the visual access menu provided by the vendor. Further, the remote devices **106***a-n* may be grouped into various categories such as, but are not limited to, electronics appliances, home devices, buildings, doors, room appliances, switches, floor wise, and so forth. Further, the remote devices **106***a-n* may be grouped according to location of the remote devices, such as home devices, office devices, garages devices, factory devices, farm house devices, and so forth. The VMThings **108** of the device **102** may store visual access menus and enhanced visual access menus corresponding to the remote devices **106***a-n* based on the various categories of the remote devices **106***a-n*. Each of the remote devices **106***a-n* may have a unique remote device identity (ID). In an embodiment of the invention, the user may require to register the remote devices **106***a-n* with the device **102** so that the remote devices **106***a-n* may be controlled by using the VMThings **108**. In an embodiment of the invention, the user may be required to authenticate or prove his/her identity at device **102** or for the remote devices **106***a-n* before controlling one or more operations of the remote devices **106***a-n*.

[0096] Further, the VMThings **108** may display an enhanced visual access menu corresponding to the remote devices **106***a-n*. The enhanced visual access menu may include one or more device options. The device options may be displayed as graphics or icons and/or text representations of the remote devices **106***a-n*. For example, a car may be displayed for representing the car option. The user may control the remote devices **106***a-n* by selecting a device option from the device options at the device **102**. Further, the enhanced visual access menu may display the grouping or categories of the remote devices **106***a-n*. The VMThings **108** may also translate the visual access menu or the enhanced visual access menu from a first language to a second language. Examples of the first language and the second language may include, but are not limited to, Spanish, French, English, Sanskrit, Hindi, Urdu, Arabic, and so forth. For example, the VMThings may translate an English visual access menu into a French visual access menu and thereafter, it may be displayed at the device **102**. The VMThings **108** may display the visual access menu or the enhanced visual access menu at the device **102** based on the user's preferred language.

[0097] The user may select an option from the visual access menu or an enhanced visual access menu. Further, the user may select an option (or device options) by using a combination of keys on a keypad of the device **102**. In an embodiment of the invention, the user may select an option by clicking the option or the device option by using a mouse device. In an embodiment of the invention, the user may select an option by touching the screen of the device **102**. For example, if the user wants to switch on an air conditioner (AC) on way towards home, the user can select or enter an appropriate key combination on the device **102** or may touch (in case of touch sensitive display at the device **102**) an option of the visual access menu corresponding to the AC.

[0098] In one embodiment, the user can give a voice command to the device **102**. Based on the input received by the device **102**, the air conditioner may be switched on automatically. Further, the user can also regulate the cooling of the room by changing temperature settings of the air conditioner. After connecting the device **102** to one or more of the remote devices **106***a-n*, the user can control the one or more operations such as, but are not limited to, switch on, switch off, reduce temperature, and so forth from a distant location without being physically present at the location. In one embodiment, the remote devices **106***a-n* can be security cameras or alarm station installed at the home location of the user.

[0099] In an embodiment of the invention, the user may select an option by making gestures or hand movements at the device. For example, the user may do a thumb up gesture to switch on an appliance at home or may do a thumb down gesture to switch off the same. Similarly, the user may do other gestures such as, but are not limited to, waving a hand, nodding head, smiling, blinking an eye, and so forth. In an embodiment of the invention, the device may include a camera for detecting the gestures or hand movements. In an embodiment of the invention, the VMThings **108** may be configured to analyze and interpret the gestures and hand movements. Further, the VMThings **108** may include stored gestures defined by the user at device **102** and may compare or match the real time gestures with the stored gestures. The device may include a software or hardware such as microphone for detecting the voice commands or audio inputs.

[0100] In another embodiment of the invention, the VMThings **108** may be configured to analyze the voice commands and audio inputs received from the user through voice recognition. Further, the user may select the option from an Internet of Things menu through voice command(s) for controlling the remote devices **106***a-n*. The device **102** may include a list of voice commands and action to be taken corresponding to each command. The VMThings **108** may compare and match the received voice command with the stored list and thereafter may take an action based on the comparison. In an exemplary scenario, the user at office may switch on the AC present at home by accessing the visual access menu and saying "switch off the AC" on the device **102** (or a smart phone). In an embodiment of the invention, speech/voice recognition may be used to analyze the voice instructions or commands received from the user to control the remote devices **106***a-n*. In an embodiment of the invention, the device **102** may receive a call from the one or more objects such as a remote device. In such a case, the VMThings **108** may display a visual access menu of the calling object.

[0101] In an embodiment of the invention, the VMThings **108** may determine location of the device or the plurality of objects such as the remote devices **106***a-n*. In an embodiment of the invention, the selection of the option may be

automatic based on one or more predefined instructions of the user of the device **102**. For example, the predefined instruction may be like switch on the AC at 6 PM, switch off the TV at 2 PM, and close the door of the garage. The remote devices **106***a-n* may be controlled according to these predefined instructions irrespective of the location of the user or the device **102**.

[0102] In an embodiment of the invention, one or more signals may be generated and transmitted by the device **102** based on the selection of the option or an input received from the user. The signals may be transmitted to the remote devices **106***a-n* through the network **104**. The remote devices **106***a-n* may be controlled based on the signals received from the device **102**. In an embodiment of the invention, the device **102** may receive an alert message(s) regarding the operational condition of the remote devices **106***a-n*. For example, an alert message like 'Car door left opened' may be received by the user at his/her mobile phone for a car standing in a parking area. In an embodiment of the invention, the alert message may be received through at least one of an SMS, an MMS, an instant message, an e-mail, a phone call, turn on of display of device when it's off, and so forth. In another embodiment of the invention, the user may further receive alert message as pop messages at the device **102**, at a GPA system, at a multi function display of a car of the user, at a TV, at a picture frame, and so forth. Thereafter, the user may control or operate the car door through his/her smart phone and from the office itself. There is no need for him to rush to the parking area for closing the door. In an embodiment of the invention, the user may receive alert messages at a predefined time period. For example, the user may receive the alert messages regarding the connected remote devices **106***a-n* after every 1 hour, 2 hour, 30 minutes, and so forth.

[0103] Further, the displayed Internet of Things menu or the visual access menu may extend or change based on the user selection of the option from the visual access menu. In another embodiment of the invention, the device **102** may receive images, videos, audios, related to the remote devices **106***a-n* at the predefined time period. Further, the device **102** may receive real-time information, such as, but is not limited to, images, video etc. of the plurality of the remote devices **106***a-n*. In an exemplary scenario, the user can monitor and control real-time operation of the remote devices **106***a-n* such as one or more vehicles based on the information received through the network **104**. For example, the user can receive images or videos of the one or more vehicles on the device **102**. Further, the VMThings **108** may display these images of remote devices **106***a-n* to the user. The user can send instructions or voice response to the one or more vehicles through the network **104**. For example, the user can track position of the one or more vehicles in real-time from the device **102** at another location.

[0104] In an embodiment of the invention, the enhanced visual access menus corresponding to the remote devices **106***a-n* may be stored at a server **114** in the network **104**. As discussed with reference to FIG. **1**B, the user of the device **102** may access the visual access menus corresponding to the remote devices **106***a-n* through a web browser in an exemplary environment **200**. The environment **200** may include the device **102** such as a smart phone capable of connecting to the network **104** (or the Internet) via the web browser. In an embodiment of the invention, the remote devices **106***a-n* may be controlled via a local wireless communication or local network. In an embodiment of the invention, the remote devices **106***a-n* may be connected to a bridge device that may further be connected to the Internet. The web browser may be used to connect to the Internet and in turn to the local network. Examples of the web browser include, but are not limited to, Internet Explorer, Google Chrome, Mozilla Firefox, Netscape Navigator, and so forth. The user can enter a Uniform Resource Locator (URL) such as, 'www.ABC.com' in the web browser to access a website including a database. The database at the website may store a plurality of visual access menus or Internet of Things menu or cockpit or enhanced visual access menus associated with the remote devices **106***a-n*. The enhanced visual access menus are visual access menus corresponding to the remote devices **106***a-n*. Each of the enhanced visual access menus may include one or more device options. In an embodiment of the invention, the database may be present in the network **104**.

[0105] A webpage **110** may be displayed at the device **102** corresponding to the URL entered by the user. The user may be required or asked to authenticate his/her identity before accessing the visual access menus. The displayed webpage **110** may include one or more data request fields **112***a-b* where the user may enter his/her details. In an embodiment of the invention, the user may access various visual access menus by authenticating at the website by entering his/her login details such as, but are not limited to, password, used ID, e-mail ID, date of birth, and so forth, in the one or more data request fields **112***a-b*. Though not shown, but a person skilled in the art will appreciate, that the webpage **110** may include more than two data request fields **112***a-b*. The one or more of options of the visual access menus or the enhanced visual access menus may be displayed to the user at his/her device **102**.

[0106] In an embodiment of the invention, the user may create personalized visual access menus for controlling his/her personal devices of the remote devices **106***a-n*. In an embodiment of the invention, the user may configure or create an Internet of things menu for controlling remote devices. The Internet of Things menu may include a plurality of representations corresponding to identifiable objects such as the remote devices **106***a-n*. Further, the user may customize the Internet of Things menu based on his/her preferences such as, but not limited to, language preference, theme preference, color preference, font size preference, device preference, service preference, and so forth. The VMThings **108** may display customized or personalized visual access menu at the device **102**. In an embodiment of the invention, the VMThings **108** may display visual access menu at a second display connected to the device **102**. The user may select an option from the multiple options of the visual access menu. The enhanced visual access menu (or the Internet of Things menu) may be displayed at the device based on the selection of an option by the user at the device **102**. In an embodiment of the invention, a connection may be established between the user device **102** and the remote devices **106***a-n* based on the selection of the option by the user. Thereafter, the user can access and control the remote devices **106***a-n* irrespective of a location of the user. The user may not have to be in front of or close to the remote device **106***a-n* for controlling the operations of the remote devices **106***a-n*.

[0107] FIG. **1**C illustrates another exemplary environment **300**, in accordance with the first embodiment of the inven-

tion. An access device **116** may be connected to a display device **118**. The access device **116** may access and control the plurality of remote devices **106***a-n* connected through the network **104**. The access device **116** may be any device capable of data and/or voice communications through the network **104** or the remote devices **106***a-n*. Examples of the access device **116** include, but are not limited to, a router, a telephone, a set top box, a hub, a gateway, a printer, a music system, a mobile phone, a PDA, a smart phone, a picture frame, and so forth. In an embodiment of the invention, the access device **116** may not have a display or may have limited display capability. The access device **116** may include a plurality of ports for connecting to the network **104**, and/or the display device **118**. The plurality of ports can be such as, but are not limited to, parallel ports, serial ports, DB-2 connector, IEEE 1284, IEEE 1394 ports, 8P8C ports, PS/2 ports, RS-232 ports, Registered Jack (RJ) 45 ports, RJ 48 ports, VGA port, Small Computer System Interface (SCSI) ports, USB ports, DB-25 ports, and so forth.

[0108] Examples of the display device **118** may include, but are not limited to, a television, a Liquid Crystal Diode (LCD) display, a Light Emitting Diode (LED) display, a projector screen, a computer, a laptop, a tablet computer, a picture frame, a tablet computer, and so forth. The access device **116** may provide a network interface to the display device **118**. The user may use the access device **116** for connecting to the network **104**. Moreover, the user can access the remote devices **106***a-n* connected to the network **104** by using the access device **116**. In this embodiment of the invention, once connected with the remote devices **106***a-n* the visual access menus or the Internet of Things menus may be displayed to the user at the display device **118**. In an embodiment of the invention, the user may have to authenticate and/or one or more login details before viewing the visual access menus. The user may authenticate or enter his/her personal details at the access device **116**. In an embodiment of the invention, the user may authenticate or enter the personal details at the display screen.

[0109] In an embodiment of the invention, the access device **116** may be a home controller device. The user may access the VMThings **108** by logging into this home controller and may view the visual access menus at his device **102** or a display device **116**. After logging into the home controller the user may control the objects i.e. remote devices or services associated with the home controller. Therefore, the user may control the one or more objects by using a combination of devices such as the home controller, smart phone, another display device, and so forth.

[0110] The access device **116** may include an Internet of Things application i.e. VMThings **108** application for accessing the visual access menus and the enhanced visual access menus. The VMThings **108** may display the visual access menus at the display device **120**. The user may connect to the remote devices **106***a-n* by selecting one or more options of the visual access menus. Further, the remote devices **106***a-n* may be grouped into various categories such as, but are not limited to, electronics appliances, home devices, buildings, doors, room appliances, electric switches, cars, windows, and so forth. Further, the remote devices **106***a-n* may be grouped according to location, such as home devices, office devices, garages devices, and so forth. The of the access device **116** may store visual access menus and enhanced visual access menus according to the various categories of the remote devices **106***a-n* at the access device **116**. Further, the user may control any remote device from the remote devices **106***a-n* by selecting one or more options from the visual access menu or the Internet of Things menu. In an exemplary scenario, the user can connect to the network **104** by using a telephone and may view the visual access menu on a screen of the television. Thereafter, the user may access and control the remote devices **106***a-n* from the telephone by pressing appropriate keys/buttons of the telephone.

[0111] In an embodiment of the invention, the user may register the remote devices **106***a-n* or do some settings at the access device **116** or the remote devices **106***a-n*, so that the user may control the remote devices **106***a-n* from the VMThings **108**. In an embodiment of the invention, the user may be required to authenticate or prove his/her identity at the access device **116** or for the remote devices **106***a-n* before controlling one or more operations of the remote devices **106***a-n*.

[0112] FIG. **1**D illustrates an environment based on a ZigBee network **120**, in accordance with the first embodiment of the invention. As shown, the access device **116** may include the VMThings **108** for displaying a visual access menu or an enhanced visual access menu or an Internet of Things menu at the display device **118**. The access device **116** may connect to the remote device **106***a-n* through the ZigBee network **120**. In an embodiment of the invention, the remote devices **106***a-n* may be connected to the ZigBee network **120** through a local network such as a LAN, a NFC network, a Bluetooth network, and so forth. The local network may be connected to the ZigBee network **120** through some gateway device such as bridge, router, hub, gateway device, switch, and so forth.

[0113] FIG. **1**E illustrates an environment based on a WiMAX network **122**, in accordance with the first embodiment of the invention. As shown, the access device **116** may include the VMThings **108** for displaying the Internet of Things menu or the visual access menu or the enhanced visual access menus at the display device **118**. The access device **116** may connect to the remote devices **106***a-n* through the WiMAX network **122**. In an embodiment of the invention, the remote devices **106***a-n* may be connected to the WiMAX network **122** through a local network such as a LAN, NFC network and so forth. In an embodiment of the invention, the user may require to register the remote devices **106***a-n* or do some settings at the access device **116** or the remote devices **106***a-n*, so that the user may control the remote devices **106***a-n* from the VMThings **108**. In an embodiment of the invention, the user may be required to authenticate or prove his/her identity at the access device **116** or for the remote devices **106***a-n* before controlling one or more operations of the remote devices **106***a-n*. The user may access the visual access menus and enhanced visual access menus at the access device **116** through a GUI. The VMThings **108** may enable the user to control the remote devices **106***a-n* irrespective of the location of the remote devices **106***a-n*. For example, the user may control operations of the air conditioner located in his/her factory by being at home itself. The user may not have to be physically present at the factory or near the air conditioner for controlling the operations of the air conditioner. The user may do the same through the VMThings **108** of the access device **116** (or the device **102**).

[0114] FIG. **1**F illustrates an environment based on a Global System for Mobile Communication (GSM) network

124, in accordance with the first embodiment of the invention. As shown, the access device **116** may be connected to the remote devices **106***a-n* through the GSM network **124**. Though not shown, but a person skilled in the art will appreciate that the access device **116** may be connected to the remote devices **106***a-n* through other networks, such as, but are not limited to, an RF4CE network, an NFC network, an HSPA network, a LAN, a WAN, a 3^{rd} generation network, a 4^{th} generation network, a CDMA network, an EV-DO network, and so forth.

[0115] FIG. **1**G illustrates an environment based on the ZigBee network **120**, in accordance with the first embodiment of the invention. As shown, the device **102** may include the VMThings **108**. A user may configure an Internet of Things menu by using the VMThings at the device **102**. The user of the device **102** may connect to the remote devices **106***a-n* by using the VMThings **108** through the GUI at the device **102**. Further, the device **102** may be connected to the remote devices **106***a-n* through the ZigBee network **120**. In an embodiment of the invention, the device **102** may be connected to other wireless network such as the WiMAX network **122**, as shown in FIG. **1**H.

[0116] FIG. **1**I illustrates an environment based on a combination of a local network **126** and the Internet **130**, in accordance with the first embodiment of the invention. The remote devices **106** *a-n* may be connected to a local network **126**. The local network **126** can be a private network, a wireless network, and so forth. The local network **126** in turn may be connected to an external or public network such as, but are not limited to, the Internet **130** through a bridge device **128**. The device **102** may connect to the remote devices **106***a-n* through the Internet **130**. The local network **126** and the Internet **130** may be connected to each other through other devices such as, but are not limited to, a router, a hub, a switch, a gateway, and so forth.

[0117] In an embodiment of the invention, the VMThings **108** may display an advertisement or multiple advertisements along with the visual access menu at the device **102**. In an embodiment of the invention, the VMThings may display the advertisement or multiple advertisements along with an Internet of Things menu at the device **102**. In an embodiment of the invention, the advertisement(s) are selected and displayed based on the content of the displayed visual access menu or the Internet of Things menu. For example, if the visual access menu is for controlling the home appliances, then the advertisements may be about home appliances such as AC, fans, etc. In an embodiment of the invention, the visual access menu and/or advertisements may be displayed at a second display or a display device such as a picture frame, LCD, television, and so forth connected to the device **102**. Further, the visual access menus and the advertisements may be displayed at the display device or the second display through wireless means such as Wi-Fi, Bluetooth, ZigBee, and so forth.

[0118] FIG. **2**A illustrates an exemplary environment **400**, in accordance with a second embodiment of the invention. The user **102** may use the device **102** to connect to a plurality of services **202***a-n* through the network **104**. The user can access the information about the services **202***a-n* at the device **102**. As discussed with reference to FIG. **1**A, the device **102** can be a portable or hand-held device capable of communicating and connecting to the network **104** or other devices such as the remote devices **106***a-n*. Example of the device **102** may include a mobile phone, a smart phone, a computer, a personal digital assistant (PDA), a tablet computer, a laptop etc. The network **104** can be a wired network such as a Local Area Network (LAN) or a Wide Area Network (WAN) or a wireless network such as a WiMAX network or a combination of these. Examples of the services **202***a-n* include, but are not limited to, banking services, travel services, entertainment services, railways services, movies services, restaurants, and so forth. Further, the banking services may be categorized as insurance services, retail banking services, internet banking services, loans service, NRI banking, and so forth. The entertainment services may be accessed by the user to get information about music, movies, theatre, news, cartoons, or sports. For examples, the user may access movies services to know the new releases in movies. The information about services may be displayed in form of an enhanced visual access menu. The user may interact with the enhanced visual access menu accordingly.

[0119] In an embodiment of the invention, the VMThings **108** may display an Internet of Things menu at the device **102**. The Internet of things menu may include representations of one or more recognizable or identifiable objects such as, but are not limited to, remote devices **106***a-n* or services in an Internet or network like structure. The one or more identifiable objects may be physical or virtual objects. A graphical user interface (GUI) may be used by the user for creating the Internet of Things Menu. In an embodiment of the invention, the objects may be the services **202***a-n*.

[0120] Further, the VMThings **108** may highlight a frequently accessed service option or preferred service option in the enhanced visual access menu for the services **202***a-n* or the Internet of Things menu based on the user's previous access patterns. In an embodiment of the invention, the VMThings **108** may highlight one or more frequently accessed device options or preferred device options in the enhanced visual access menu for the remote devices **106***a-n*. Further, the VMThings **108** may store the user access pattern at the device **102**. In an embodiment of the invention, the VMThings **108** may present a standard menu (or a standard visual access menu) for controlling all services **202***a-n* to the user. In another embodiment of the invention, the VMThings **108** may display a customized menu of services **202***a-n* at the device **102** based on user preferences and/or access pattern.

[0121] The device **102** may include a Graphical User Interface (GUI) to enable the user to access the services **202***a-n*. In an embodiment of the invention, the device **102** may include audio or visual menus of the services **202***a-n*. The device **102** may include visual access menus and/or enhanced visual access menus corresponding to the services **202***a-n*. The enhanced visual access menu may include one or more service options. The service options may be displayed as graphics or icons or text representing the services **202***a-n*. The user may control and get more information about the services **202***a-n* by selecting a service option from the service options at the device **102**. In an embodiment of the invention, the user may select a service option by touching the screen of the device **102**. For example, if the user wants more information about the travelling service, the user may select the travel service option. In one embodiment, the user can give a voice command to the device **102** for selecting a service option from the enhanced visual access menu. Further, the user may select an option by using a combination of keys on a keypad of the device **102**.

Further, the user may select a service option by using a mouse device. In an embodiment of the invention, the selection of the service option may be automatic based on the one or more predefined instructions of the user of the device **102**. In an embodiment of the invention, the user may have to register him/her or the device **102** to access the services **202***a-n*. In an embodiment the user may have to authenticate his identity prior to accessing the services **202***a-n*. In an embodiment of the invention, the user may receive alert messages related to the services **202***a-n*. For example, the user may receive reminders about making a payment for his/her credit card bill. In another embodiment of the invention, the user may receive the alert messages regarding the connected services **202***a-n* at a predefined time period such as, but are not limited to, after every 1 hour, 2 hour, 30 minutes, and so forth. In an embodiment of the invention, the VMThings **108** may alert the user through at least one of by turning on the display of the device **102** from an off state and present a menu (visual access menu or Internet of Things menu or cockpit), presenting a menu in a pop up window, sending Short Messaging Service (SMS) message, sending a Multimedia Messaging Service (MMS) message, initiating a telephone call, and so forth. Further, the user may receive alert message as a pop up message at his/her Global Positioning System (GPS) device or a multi function display of his/her car or at screen of a television or at a mobile phone of the user, and so forth.

[0122] In another embodiment of the invention, the device **102** may receive images, videos, audios, related to the services **202***a-n* at the predefined time period. In an embodiment of the invention, the user may access or control the services **202***a-n* by giving voice commands or voice inputs. In an embodiment of the invention, the user may connect to the services **202***a-n* through applications such as, but are not limited to, Skype, Google Talk, Yahoo Messenger, Magic Jack, and so forth.

[0123] Further, the device **102** may include visual access menus associated with at least two independent objects or services. In an embodiment of the invention, at least two independent objects/services may be produced by at least two independent vendors. In an embodiment of the invention, the device **102** may include vendor specific Internet of Things menus or visual access menus or enhanced visual access menus for the services **202***a-n*. Further, the device **102** may also include standard menu(s) for accessing the objects. The VMThings **108** may display the visual access menu depending on the independent vendor(s) of the one or more objects. In another embodiment of the invention, the VMThings **108** may display a visual access menu which is not provided by either of the at least two independent vendors of the at least two independent objects. Further, the visual access menus may include at least one icon indicating the one or more services **202***a-n*. Further, the icon is substantially different than the icons provided in the visual access menu or the Internet of Things menu provided by the vendor. The VMThings **108** may display customized or personalized visual access menu or the Internet of Things menu at the device **102**. In an embodiment of the invention, the VMThings **108** may display visual access menu or the Internet of Things menu at a second display connected to the device **102**.

[0124] In an embodiment of the invention, speech/voice recognition may be used to analyze the voice instructions or commands received from the user to access the services **202***a-n*. In an embodiment of the invention, the device **102** may receive a call from the services **202***a-n*. In such a case, the VMThings **108** may display a visual access menu and/or an Internet of Things menu of the calling service. Further, the Internet of Things menu may include one or more options for interacting with the service from which call is received.

[0125] FIG. **2**B illustrates another exemplary environment **500**, in accordance with the second embodiment of the invention. In an embodiment of the invention, the visual access menus or the Internet of Things menu corresponding to the services **202***a-n* may be stored at the server **114** in the network **104**. The user at the device **102** may access an enhanced visual access menu corresponding to the services **202***a-n* by using a web browser. The device **102** may be configured to connect to the network **104** (or the Internet) by entering a URL or a website address in the web browser. Examples of the web browser include, but are not limited to, Apple Safari, Internet Explorer, Google Chrome, Mozilla Firefox, Netscape Navigator, and so forth. The user can enter a URL or a website address in the web browser to access a database including a plurality of enhanced visual access menus corresponding to the services **202***a-n*. In an embodiment of the invention, the database may be present in the network **104**.

[0126] A webpage **110** including the one or more data request fields **112***a-b* may be displayed at the device **102** based on the entered URL. The user may enter his/her details in the data request fields **112***a-b* for getting access to the database. Thereafter, at least one enhanced visual access menus to access the services **202***a-n* may be displayed to the user at the device **102**. The user may access information about the one or more services **202***a-n* by interacting with the displayed enhanced visual access menus. In an embodiment of the invention, the webpage **110** may include at least one of images, audio/video files, text, hyperlinks, and so forth

[0127] In an embodiment of the invention, a new visual access menu or a new Internet of things menu may be displayed when the user is directed to a new web site based on the user's input or selection. The new visual access menu may be an IVR menu or an Internet of Things menu associated with the new web site. Further, the new visual access menu may include options associated with the new web site.

[0128] FIG. **2**C illustrates yet another exemplary environment **600**, in accordance with the second embodiment of the invention. As discussed with reference to FIG. **1**C, the user may use the access device **116** to access or control services **202***a-n*. The access device **116** may be any device capable of data and/or voice communications through the network **104**. In an embodiment of the invention, the access device **116** may not have a display or may have limited display capabilities. The access device **116** can be such as, but are not limited to, a router, a telephone, a set top box, a hub, a gateway, a printer, a mobile phone, a smart phone, a PDA, a tablet computer, a walkie-talkie, and so forth. Further, the access device **116** may include a plurality of ports for connecting to the network **104** or the display device **118** such as a television or an LCD display. Examples of the plurality of ports include, but are not limited to, parallel ports, serial ports, DB-2 connector, IEEE 1284, IEEE 1394 ports, 8P8C ports, PS/2 ports, RS-232 ports, Registered Jack (RJ) 45

ports, RJ 48 ports, VGA port, Small Computer System Interface (SCSI) ports, USB ports, DB-25 ports, and so forth.

[0129] The access device **116** may provide a network interface to the display device **118**. The user may use the access device **116** for accessing the one or more of the services **202***a-n* through the network **104**. An enhanced visual access menu or an Internet of Things menu corresponding to the services **202***a-n* may be displayed to the user. Thereafter, the user may access the information about the services **202***a-n* accordingly. In an embodiment of the invention, the user may have to enter one or more login details for authenticating himself/herself to gain access to the one or more visual access menus. In an exemplary scenario, the user can connect to the network **104** by using a telephone and may view the visual access menu on a television screen. Thereafter, the user may access and control the services **202***a-n* from the telephone by selecting or dialing or pressing one or more combination of keys at the telephone.

[0130] In an embodiment of the invention, the VMThings **108** may display an advertisement or multiple advertisements along with the visual access menu at the display device **118**. In an embodiment of the invention, the advertisement(s) are selected and displayed based on the content of the displayed visual access menu. For example, if the visual access menu is for controlling the banking services, then the advertisements may be about insurance and opening accounts. In an embodiment of the invention, the visual access menu and/or advertisements may be displayed at a second display or the display device **118** such as a picture frame, LCD, television, and so forth connected to the access device **116**. Further, the visual access menus and the advertisements may be displayed at the display device **118** or the second display through wireless means such as Wi-Fi, Bluetooth, ZigBee, and so forth.

[0131] FIG. **2**D illustrates an environment based on the ZigBee network **120**, in accordance with the second embodiment of the invention. As shown, the access device **116** may include the VMThings **108** for displaying a visual access menu or an enhanced visual access menu including one or more service options at the display device **118**. The access device **116** may access and/or connect to the services **202***a-n* through the ZigBee network **120**. Examples of the services **202***a-n* include, but are not limited to, banking services, travel services, entertainment services, railways services, movies services, restaurants, hotels, and so forth. In an embodiment of the invention, the services **202***a-n* may be accessed through the ZigBee network **120** and the local network **126** such as a LAN, an NFC network, a Bluetooth network, virtual private network (VPN), and so forth. The local network may be privately monitored network with no or limited access to outside users. The local network **126** may be connected to the ZigBee network **120** through some gateway device such as the bridge device **128**, a router, a hub, a gateway, a switch, and so forth.

[0132] FIG. **2**E illustrates an environment based on the WiMAX network **122**, in accordance with the second embodiment of the invention. As shown, the access device **116** may include the VMThings **108** for displaying a visual access menu or an enhanced visual access menu including one or more service options at the display device **118**. The access device **116** may connect to the services **202***a-n* through the WiMAX network **122** Examples of the services **202***a-n* include, but are not limited to, banking services, travel services, entertainment services, railways services, movies services, restaurants, and so forth. In an embodiment of the invention, the services **202***a-n* may be connected to the WiMAX network **122** through a local network such as a LAN, an NFC network, and so forth. The local network **126** may be connected to the WiMAX network **122**. In an embodiment of the invention, the user may require to register to the services **202***a-n* or do some settings at the access device **116** or the remote devices **106***a-n*, so that the user may control the services **202***a-n* (or remote devices **106***a-n*) from the access device **116**. In an embodiment of the invention, the user may be required to authenticate or prove his/her identity at the access device **116** or the services **202***a-n* before accessing the services **202***a-n*. The user may access visual access menus and enhanced visual access menus at the access device **116** through a GUI. The VMThings **108** may enable the user to access and control the services **202***a-n* irrespective of the location of the user.

[0133] FIG. **2**F illustrates an environment based on the Global System for Mobile Communication (GSM) network **124**, in accordance with the second embodiment of the invention. As shown the access device **116** may be connected to the services **202***a-n* through the GSM network **124**. Though not shown, but a person skilled in the art will appreciate that the access device **116** may be connected to the services **202***a-n* through other networks, such as, but are not limited to, an RF4CE network, an NFC network, an HSPA network, a LAN, a WAN, a 3^{rd} generation network, a 4^{th} generation network, a Code Division Multiple Access (CDMA) network, an EV-DO network, and so forth.

[0134] FIG. **2**G illustrates an environment based on the ZigBee network **120**, in accordance with the first embodiment of the invention. As shown, the device **102** may include the VMThings **108** for configuring or customizing or displaying an Internet of Things menu at the device **102** by a user. The Internet of Things menu may include representations of one or more recognizable or identifiable objects such as, but are not limited to, remote devices **106***a-n* or services in an Internet or network like structure. The one or more identifiable objects may be physical or virtual objects. A graphical user interface (GUI) may be used by the user for creating the Internet of Things Menu. The device **102** can be a portable device capable of communicating and connecting to the network **104** or other devices such as the remote devices **106***a-n*. Example of the device **102** may include, but are not limited to, a mobile phone, a telephone, a smart phone, a computer, a personal digital assistant (PDA), a tablet computer, a laptop, and so forth. A user of the device **102** may access to the services **106***a-n* by using the VMThings **108** through the GUI at the device **102**. Further, the device **102** may be connected to the services **202***a-n* through the ZigBee network **120**. In an embodiment of the invention, the device **102** may be connected to other wireless network such as the WiMAX network **122**, as shown in FIG. **2**H.

[0135] FIG. **2**I illustrates an environment based on a combination of a local network and the Internet, in accordance with the first embodiment of the invention. The services **202***a-n* may be interconnected through the local network **126**. The local network **126** can be a private network, a wireless network, a VPN and so forth. The local network **126** in turn may be connected to an external or public network such as, but are not limited to, the Internet

130 through a bridge device 128 or a router, or a switch or a gateway device, and so forth. The user of the device 102 may connect or access the services 202*a-n* through the Internet 130. Further, the VMThings 108 may display information about services in a preferred language set by the user. For example, if the user wants the information in English, the VMThings may display the information about the services 202*a-n* in English language, and if the user is interested in getting information in Spanish language, the VMThings may display the information about the services 202*a-n* in Spanish language. VMThings is configured to display the visual access menu or the enhanced visual access menu in different languages such as, but are not limited to, English, Spanish, French, German, Sanskrit, Hindi, and so forth. Further, the user may have to register himself or the device 102 (or the access device 116) at the website before accessing the services 202*a-n*. In an embodiment of the invention, the services 202*a-n* may be accessed through the web browser or the web page 110 as shown in FIG. 2B

[0136] FIG. 3A illustrates an exemplary visual access menu 308 and an enhanced visual access menu 310 at a device 102, in accordance with the first embodiment of the invention. As discussed with reference to FIG. 1A, the device 102 may include a graphical user interface (GUI) for accessing the visual access menus. Further, the VMThings 108 may display the visual access menu 308 (or the Internet of Things menu) at the device 102 so as to enable the user to control the remote devices 106*a-n*. A visual access menu 308 may include one or more options. The options may be a remote devices 302 option and services 304 option. Though not shown, but a person skilled in the art will appreciate that the visual access menu 308 (or the Internet of Things menu) may include more than two options. A user of the device 102 may select an option of these options from the displayed visual access menu 308 (or the Internet of Things menu). Further, the user may select an option by any of the following ways, but are not limited to, touching an option, through a voice command, through a gesture or hand movement, through an audio input, by pressing one or more keys at the device 102, and so forth. Further, the VMThings 108 may use voice recognition to enable the user to make selection of an option or icon from the visual access menu 308 (or the Internet of Things menu) through a voice command. The device 102 may include a voice recognition module to process and analyze the voice command(s).

[0137] Thereafter, an enhanced visual access menu 310 (or an enhanced Internet of Things menu) may be displayed based on the selection of the option from the visual access menu 308. For example, if the user has selected the remote devices 302 option, then the enhanced visual access menu 310 including one or more device options 306*a-n* may be displayed to the user at the device 102. The one or more device options may include options corresponding to the remote devices 106*a-n* such as, but are not limited to, a vehicle 306*a*, an air conditioner (AC) 306*b*, camera 306*c*, microwave 306*n*, and so forth. The user may select a device option of the device options 306*a-n*. For example, the user may select and control a microwave by selecting the microwave option 306*n*. For example, if the user may control the operations such as switch off, switch on, regulate, and so forth through the enhanced visual access menu. Further, the remote devices 106*a-n* may include some predefined settings so that the user may access and control the remote devices 106*a-n* from a remote location. In an embodiment of the invention, the predefined settings may be done by the user. The VMThings 108 may store these pre-defined settings at the access device 116 (or the device 102). In an embodiment of the invention, the device 102 may be connected to the services based on the local communication protocol based on nearby communication and proximity such as NFC, the Bluetooth, and so forth. Further, the user may have to authenticate his/her identity before accessing the remote devices 106*a-n*. The device 102 may connect to the remote devices based on the predefined settings. Further, in an embodiment of the invention, each remote device of the remote devices 106*a-n* may have a unique remote device identity (ID) to distinguish from other remote devices. Further, the user may be allowed to access the remote devices 106*a-n* based on registration and/or authentication.

[0138] In an embodiment of the invention, the user may personalize or customize the visual access menus or the Internet of Things menu displayed to him/her according to his/her preferences. For example, the user may select remote devices such as car, garage, home doors, fans, and lights of his/her house. Now the user may be displayed with a visual access menu corresponding to his/her preferred remote devices of the remote devices 106*a-n*. Through this visual access menu or the Internet of Things menu the user may access and control one or more operations of the personal remote devices. Similarly, the user may define his/her preferences for accessing the remote devices present at his/her office or factory, and so forth. Therefore, multiple visual access menus may be stored at the devices based on the preferences of the user. In an embodiment of the invention, more than one user may use the device 102 for accessing remote devices 106*a-n*. For example, in a home, 4 users may be using same smart phone for controlling the multiple devices of home. The VMThings 108 allows different users to access remote devices (or services) according to their own preferences at the device 102 (or the access device 116). The VMThings 108 may also store the different preferences corresponding to the different users. The VMThings 108 may identify different users based on their unique user ID or details. Further, the VMThings 108 may highlight few frequently selected or previously selected options of the visual access menu. Further, the VMThings may display a menu for communicating with the one or more objects made by a vendor. In an embodiment of the invention, the menu is not provided by the vendor. Further, the one or more objects may comprise at least two objects produced by two independent vendors.

[0139] Further, the user may provide a language preference or a display preference. For example, the VMThings 108 may display the visual access menu (or the Internet of Things menu) in Spanish language based on the user's Spanish language preference. In an embodiment of the invention, the visual access menu (or the Internet of Things menu) may be displayed by the VMThings 108 on a bigger display screen in vicinity of the device 102, such as, but are not limited to a projector screen, an LCD display, an LED display, a television, and so forth based on the user's display preference. Further, the VMThings 108 may store the usage or access pattern for the users based on his/her selections of options from the visual access menus or the enhanced visual access menus (or the Internet of Things menus) at the device 102. In an embodiment of the invention, the device 102 may store usage patterns for more than one user at the device 102.

[0140] In an embodiment of the invention, the user may select an option from the one or more options at the device **102** (or the access device **116**) through voice inputs. For example, the user may switch on a microwave present at home by saying "Switch On the Microwave" or just by saying "Switch On". In another embodiment of the invention, the user may provide inputs at the device **102** by using different gestures or hand movements. For example the user may switch on an air conditioner by showing a gesture of a thumb up at the device **102**. In an embodiment of the invention, the device **102** may include a camera. Further, the user may provide inputs regarding controlling remote devices (or services) at the device **102** by clicking an image. In an embodiment of the invention, the VMThings **108** may store a list of voice commands or gestures or hand movements for selecting options from the visual access menus or the enhanced visual access menus (or the Internet of Things menus). The VMThings **108** may store the actions to be taken corresponding to these commands or gestures or hand movements.

[0141] FIG. **3**B illustrates an exemplary visual access menu **308** and an enhanced visual access menu **312** of services **202***a-n* at the device, in accordance with second embodiment of the invention. The user may access information about one or more services by selecting the services **304** option from the visual access menu **308** (or the Internet of Things menu for services **202***a-n*). An enhanced visual access menu **312** or an enhanced Internet of Things menu corresponding to the services **202***a-n* may be displayed to the user by the VMThings **108**. The enhanced visual access menu **312** may include one or more service options **314***a-n* for different types of services such as, but are not limited to, entertainment **314***a*, travel **314***b*, banking **314***c*, hotels **314***n*, movies, airlines, and so forth.

[0142] In an embodiment of the invention, the user can further expand the visual access menu for any of the services by selecting a service option from the service options **314***a-n*. For example, the user may access more information about banking services by selecting a banking option **314***c*. In an embodiment of the invention, the user may customize the visual access menu displayed to him by providing his/her preferences about the services (or remote devices) he/she would like to access or control. For example, the user may select preferred services such as entertainment, banking, and hotels. Therefore, now the user will be displayed an extended visual access menu including options for these three preferred services only. In an embodiment of the invention, the device **102** may be connected to the services based on the local communication protocol based on nearby communication and proximity such as NFC, Bluetooth, and so forth. Further, the user may have to authenticate his/her identity before accessing the services **202***a-n*. Further, in an embodiment of the invention, each service of the services **202***a-n* may have a unique service identity (ID) to distinguish from other services. Similarly, every user may have a unique user ID. In an embodiment of the invention, the user may be authenticated based on the user ID. Further, the user may be allowed to access the services **202***a-n* based on registration and/or authentication.

[0143] In an embodiment of the invention, the user may access the remote devices **106***a-n* and services **202***a-n* through a web browser as shown in FIG. **2**B. FIG. **3**C illustrates another exemplary visual access menu and an enhanced visual access menu at the device **102** when a web browser is used to access the visual access menus for controlling the remote devices **106***a-n*. The visual access menus may be stored at the server **114** in the network **104**. In an embodiment of the invention, the VMThings may update the database at the device **102** (or the access device **116**) at a regular interval. Further, the database may store a category attribute for each of the one or more objects i.e. the remote devices **106***a-n* and a standard menu according to each category attribute. Similarly, the database may store other attributes or properties such as, but not limited to, location, device name, and so forth, associated with the plurality of objects. In an embodiment of the invention, the user can access the visual access menu including the various device options **306***a-n* through the web browser. The user may enter a URL in the web browser. A web page **110***a* including a visual access menu may be displayed at the device based on the entered URL. The visual access menu at the web page **110** may include options such as, but are not limited to, remote devices option **302**, and services option **304** In an embodiment of the invention, the user may be asked to enter his/her personal details for authentication prior to getting access to the visual access menu(s). The user may select an option from the remote devices option **302** and the services option **304**.

[0144] The display of the device **102** may switch from the webpage **110***a* to webpage **110***b* when the user selects the remote devices option **302**. The webpage **110***b* may include an enhanced visual access menu including the device options **306***a-n*. The device options **306***a-n* may be graphics or icon and/or text options representing the remote devices **106***a-n* such as, but are not limited to, a vehicle, an air conditioner (AC), a camera, a door, a microwave, a window, and so forth. Examples of the device options **306***a-n* include, but are not limited to, a vehicle **306***a*, an AC **306***b*, a camera **306***c*, a microwave **306***n*, and so forth. In an embodiment of the invention, when the user selects the services option **304** from the webpage **110***a*, the display of the device **102** may change from the webpage **110***a* to a webpage **110***c* as shown in FIG. **3**D. The webpage **110***c* may include an enhanced visual access menu including the service options **314***a-n*. The services options **314***a-n* may include options for accessing the services such as, but are not limited to, entertainment **314***a*, travel **314***b*, banking **314***c*, hotels **314***n*, food, and so forth. The information may be displayed to the user based on his/her selection accordingly. Further, the information may be displayed to the user in a language based on the user's language preference.

[0145] FIG. **4** illustrates an exemplary enhanced visual access menu **402** (or the Internet of Things menu for remote devices **106***a-n*) including one or more device options **404***a-***1**, in accordance with an embodiment of the invention. A visual access menu **402** may include the one or more device options **404***a-***1**. The device options **404***a-***1** may be such as, but are not limited to, a vehicle **404***b*, an AC **404***d*, a camera **404***e*, a microwave **404***f*, a car **404***g*, a truck **404***h*, and so forth. In an embodiment of the invention, the user of the device **102** may select a device option such as a vehicle option **404***b* from the device options **404***a-***1** by touching the vehicle option **404***b*. In another embodiment of the invention, the user may enter a voice command or play an audio at the device **102** or at some other device nearby to select a device option of the device options **404***a-***1** from the enhanced visual access menu **402** (or an enhanced Internet of Things menu for the remote devices **106***a-n*). In another

embodiment of the invention, the user may select device options **404***a*-**1** through gestures or hand movements such as a thumb up, a thumb down, a waving hand, a head nod, and so forth. The enhanced visual access menu **402** includes device options **404***a*-**1**. The user may close the door of the car by selecting the Close option **404***l*. Similarly, the user may regulate the temperature of the microwave by selecting the regulate option **404***i*. Though not shown, a person ordinarily skilled in the art will appreciate that the enhanced visual access menu **402** may include different device options and more than device options **404***a*-**1**. Further, the device options **404***a*-**1** may differ based on the user's preferences such as language, remote devices, and so forth.

[0146] FIG. **5** illustrates an exemplary visual access menu **502** (or the Internet of Things menu) including one or more service options **504***a-k*, in accordance with an embodiment of the invention. The enhanced visual access menu **502** may include a plurality of service options **504***a-k*. Though not shown but a person skilled in art will appreciate that the enhanced visual access menu **502** may include more service options than shown. The service options **504***a-k* may include services such as, but are not limited to, banking **504***b*, entertainment **504***c*, travel **504***d*, and so forth. Further, the service options **504***a-k* may differ based on the user's preferences such as language, services of interest, and so forth.

[0147] The user may select a service option of the service options **504***a-k*. In an embodiment of the invention, the user of the device **102** may select the banking **504***b* option from the service options **504***a-k* by touching the banking **504***b* option. In an embodiment of the invention, the user may select the banking **504***b* option by using a combination of keys such as '12'. The user can enter the key combination by using an input device such as a keyboard connected to the device **102** or through keypad of the device **102**. In another embodiment of the invention, the user may enter a voice command or music through a microphone of the device **102** to select a service option from the service options **504***a-k* of the visual access menu **502**. In yet another embodiment of the invention, the user may select or control a service through gestures or hand movements. The user may get information about credit cards by selecting the credit cards **504***h* option. Similarly, the user may retrieve more information about his/her credit card bill by selecting the check bill **504***k* option from the visual access menu **502**.

[0148] In an embodiment of the invention, the user may access the local services available in nearby area or are in vicinity with respect to the device **102** through the VMThings **108**. For example, if the user is nearby some services, and have the device **102** or the access device **116**, then the VMThings **108** may enable the user to communicate and connect to the local service. Further, the VMThings **108** may provide some suggestion(s) regarding the local services and offerings. For example, the device **102** or the user may communicate with the nearby Bank, Coffee shop, or train station.

[0149] Further, the user may have to authenticate his/her identity before accessing or using the services. For example, the user may be asked to enter his personal details for authentication prior to connecting or accessing the services. The authentication process prevents unauthorized users from accessing the services. Further, each service may be identified through its unique service ID.

[0150] FIG. **6** illustrates exemplary components of the device **102**, in accordance with an embodiment of the invention. The device **102** may include a system bus **622** to connect the various components. Examples of the system bus **622** include several types of bus structures including a memory bus, a peripheral bus, or a local bus using any of a variety of bus architectures. As discussed with reference to FIG. **1**A, the device **102** can be a communication device capable of connecting to other devices such as the remote devices **106***a-n* through the network **104**. Example of the device **102** may include a mobile phone, a smart phone, a computer, a personal digital assistant (PDA), a tablet computer, a laptop etc. The remote devices **106***a-n* can be devices such as, but are not limited to, home appliances, vehicles, doors, lights, security systems, garage locks, and so forth. Further, the user may access the remote devices **106***a-n* from a remote location by using the device **102**. In an embodiment of the invention, the remote devices **106***a-n* may be devices present at home location. In another embodiment of the invention, the remote devices **106***a-n* may be devices present at an office location. In yet another embodiment of the invention, the remote devices **106***a-n* may be present at a factory location.

[0151] The device **102** can connect to the network **104** through a network interface **616**. An Input/Output (IO) interface **618** of the device **102** may be configured to connect to external or peripheral devices such as a memory card **620***a*, a keyboard **620***b*, a mouse **620***c*, and a Universal Serial Bus (USB) device **620***d*. Although not shown, various other devices can be connected through the IO interface **618** to the device **102**. In an embodiment of the invention, the device **102** may be connected to a hub that provides various services such as voice communication, network access, television services and so forth. For example, the hub may be a Home Gateway device that acts as a hub between the device **102** and the network **104**.

[0152] The device **102** may include a display **602** to output graphical information or the visual access menus or the Internet of Things menus to the user of the device **102**. In an embodiment of the invention, the display **202** may include a touch sensitive screen. Therefore, the user can provide inputs to the device **102** by touching the display **602** or by point and click using the mouse **620***c*. The user can interact with the visual access menu (or the Internet of Things menu) by pressing a desired button from the keyboard **620***b*. For example, the user can press a '3' key from the keyboard **620***b* to select a node **3** in the visual access menu. Further, the user can directly select the node **3** of the visual access menu from the display **602**, in case of a touch sensitive screen.

[0153] A memory **606** of the device **102** may store various programs, data and/or instructions that can be executed by a processor **604** of the device **102**. Examples of the memory **606** include, but are not limited to, a Random Access Memory (RAM), a Read Only Memory (ROM), a hard disk, and so forth. A person skilled in the art will appreciate that other types of computer-readable media which can store data that is accessible by a computer, such as magnetic cassettes, flash memory cards, digital video disks, and the like, may also be used by the device **102**. The memory **606** may include a graphical user interface (GUI) **608** for accessing the enhanced visual access menus (or the enhanced Internet of Things menu) for the remote devices **106***a-n* and/or services **202***a-n*. The memory **606** may include a database

610 for storing the enhanced visual access menus corresponding to the remote devices **106***a-n* and/or the plurality of services **202***a-n*. Further, the database **610** may store user preferences related to the enhanced visual access menus of the remote devices **106***a-n* and the plurality of services **202***a-n*. Further, the database **610** may include a category attribute for each of the objects i.e. the services **202***a-n* or the remote devices **106***a-n* and a standard menu according to each category attribute. Further, the database **610** may store the alert and reminder messages. In an embodiment of the invention, the database **610** may store information about various services **202***a-n* and remote devices **106***a-n*. Further, the database **610** may be updated at a predefined time interval. For example, the database **610** may be updated after every 2 days, once in a week, monthly, and so forth. In an embodiment of the invention, the updates may be received from the server **114** as shown in FIG. **1**B. In another embodiment of the invention, the updates about the visual access menus may be received from the network **104**.

[0154] In an embodiment of the invention, the VMThings **612** may update the database **610** based on crowd sourcing. It means the database **610** may be updated based on feedback or reviews or thoughts of other users. For example, if 10 users out of 15 users visiting a website and accessing the visual access menus says that there is some error in the system of controlling a particular object, then based on the ratings provided by these users, the record or the menu for the particular object in the database **610** may be updated. The VMThings **612** may also learn the problem associated with the visual access menus or the device or the objects from many other sources and may find a solution based on many other users. Examples of the other sources include, but are not limited to, other network devices, remote devices **106***a-n*, services **202***a-n*, users, server, and so forth.

[0155] In an embodiment of the invention, the database **610** may be created based on the information of a yellow pages directory. The plurality of objects may be categorized based on the category mentioned in the yellow pages. Further, the visual access menus in the database may be created based on the categories of the objects according to the yellow pages. In an embodiment of the invention, the database **610** may be created by a human operator or an automatic application.

[0156] Further, the memory **606** may store an Internet of Things application such as a VMThings **612** for displaying visual access menus corresponding to the objects such as remote devices **106***a-n* or the services **202***a-n* at the device **102**. Further, the VMThings **612** may be configured to connect the device **102** to the one or more of the remote devices **106***a-n*. In an embodiment of the invention, the VMThings **612** may be used to connect to the services **202***a-n* remotely. The VMThings **612** may be configured to display a visual representation in form of enhanced visual access menus of the remote devices **106***a-n* or the services **202***a-n* at the display **602**. The device **102** may further include a radio interface **614** configured for wireless communications with other devices in the network **104**. The visual access menus may include multiple device options or service options. The user can select one or more options from the visual access menu. Further, the VMThings **612** may connect the user to the remote devices **106***a-n* or services based on the selection of the options. Further, the VMThings **612** may be configured to enable the device **102** to receive images, videos, and so forth of the connected remote devices **106***a-n* and service **202***a-n* irrespective of their location. In an embodiment of the invention, the images are real-time images. In an embodiment of the invention, the VMThings **612** may be implemented as software or firmware or hardware or a combination of these at the device **102**.

[0157] In an embodiment of the invention, the user VMThings **612** may store one or more selection of options made by the user (s) in the database **610**. Further, the VMThings **612** may bookmark the options based on the past history of the user activity with the visual access menu. The database **610** may store personalized visual access menus or enhanced visual access menu for different users. The database **610** may be updated based on user instructions. The user instructions may be provided by the user through commands such as, but are not limited to, voice commands, gestures, selection of keys, and so forth. In an embodiment of the invention, the VMThings **612** is also configured to analyze and process the voice commands based on the context of the voice command.

[0158] Further, the database **610** may store visual access menu of the one or more objects based on category of the objects. In another embodiment of the invention, the database may store the visual access menus based on the vendors of the one or more objects. In an embodiment of the invention, the visual access menus may be stored based on one or more properties of the objects such as, but not limited to, location, type, distance and so forth. The database **610** may also store advertisements related to the one or more objects. In an embodiment of the invention, the VMThings **612** may display at least one advertisement along with the visual access menu at the device or display device. The advertisements may be related to the content of the visual access menu. In an embodiment of the invention, the advertisements may be related to the one or more objects, remote devices **106***a-n*, services **202***a-n*, and so forth. In another embodiment of the invention, the advertisements may be related to a location of the device **102** or of the one or more objects. In an embodiment of the invention, the advertisements may be displayed to the user based on one or more preference of the user. For example, the user may prefer to view advertisements of electronic devices like computers, etc. Further, the VMThings **108** may highlight the one or more options in the visual access menu. In an embodiment of the invention, the one or more options may be highlighted based on the users' previous selection of options. Further, the VMThings **612** may keep a record of user activity on the device **102**. The VMThings **612** may store the user profile and access patterns of the user for accessing the visual access menu or interacting with the device **102**.

[0159] In an embodiment of the invention, the database **610** may be updated based on addition or deletion of the one or more objects. For example, if a new remote device is added to the list of devices to be controlled then the visual access menu will be updated accordingly. Further, the VMThings **612** may detect errors which may occur during the user interaction with the visual access menu. The VMThings **612** may also report to the user about these errors. In an embodiment of the invention, the errors may occur due to some other reasons such as technical reasons, network failure, and so forth.

[0160] In an embodiment of the invention, the user may receive a call from the controlled one or more objects. Also, the user may be presented with a visual access menu

associated with the object from which the call is received. The VMThings **612** may display the visual access menu associated with the object from which call is received at the device **102**.

[0161] Depending on the complexity or number of device options and/or service options in the visual access menu the size of the visual access menu may differ. Moreover, size of the display **602** may be limited or small. As a result, all the options of the visual access menu may not be displayed together on the display **602**. In such a case, the VMThings **612** may allow the user to navigate by scrolling horizontally and/or vertically to view options on the visual access menu. Further, the VMThings **612** may detect the capability of the device **102** before displaying the visual access menu. For example, in case the device **102** is a basic mobile phone with limited functionality of the display screen. Therefore, the application may display the visual access menu in form of a simple list. Similarly, a list may be displayed in case of fixed line or wired telephones. Moreover, in case the device **102** includes a high capability screen, such as, but are not limited to as of an iPad, a television then the visual access menu may be displayed in form of graphics.

[0162] Further, the memory **606** may include other applications that enable the user to communicate/interact with the remote devices **106***a-n* through the network **104**. Examples of other applications include, but are not limited to, Skype, Google Talk, Magic Jack, and so forth. Other applications may be stored as software or firmware on the device **102**. Further, the memory **606** may include an Operating System (OS) (not shown) for the device **102** to function properly.

[0163] Though not shown, the device **102** may include a camera, a microphone, a speaker, and so forth. The user may provide voice commands by using the microphone. Further, the user may provide the input or select the option by clicking an image by using the camera. The user may control one or more operations of the remote devices **106***a-n* by making gestures or hand movements in front of the camera of the device **102**. The speaker may be used to output music and voice responses to the user. Further, the VMThings **612** may record voice commands received from the user. These recorded commands then may be stored at the device **102**. The user may input one or more key or key combinations using the keyboard **620***b*. The keyboard **620***b* may be a physical keyboard or a virtual keyboard displayed on a touch screen display **602** of the device **102**. In an embodiment, the keyboard **620***b* is a keypad on the device **102**. Subsequently, after some processing by the application, the enhanced visual access menu corresponding to the remote devices **106***a-n* and/or the services **202***a-n* based on the user inputs or selection is searched and displayed on the display **602**.

[0164] In an embodiment of the invention, the visual access menu or the enhanced visual access menu may be provided in real-time to the user. In another embodiment of the invention, the visual access menus (or the Internet of Things menus) may be downloaded and stored at the device **102** and may be accessed by the user later. In an embodiment of the invention, the visual access menu may be provided by a messaging service such as a Short Messaging Service (SMS). In an embodiment of the invention, customized visual access menus may be displayed to the user based on one or more preferences of the user. In an embodiment of the invention, the visual access menu may be customized based on the profile of the user. In an embodiment of the invention, the profile may be generated based on access pattern of user or the data capture by a hub connected to the device **102**. Further, in an embodiment of the invention, the VMThings **108** may convert the format of the message including the visual access menu into another format based on the user preference related to the format. For example, the VMThings **108** may convert the format of the visual access menu received in an SMS format to an e-mail format based on user preference.

[0165] In an embodiment, the memory **606** may include a web browser to access and display web pages from the network **104** and/or other computer networks. The user may use the web browser to open a website for accessing the visual access menu (or the Internet of Things menu). In an embodiment, the user may store the login details for the website(s) at the device **102**. Therefore, the user can connect to the remote devices **106***a-n* or services **202***a-n* from the web browser automatically and may not have to enter his/her login details every time to login to the website. The user may navigate through the web site and may select a hyperlink embedded in the webpage of the website. Based on the selection of the hyperlink by the user, he/she may be directed to another webpage. In such a scenario, the VMThings **612** may display a new Internet of Things menu associated with the new web site. In an embodiment of the invention, the VMThings **612** may display a new visual access menu associated with the new web page.

[0166] FIG. **7** illustrates exemplary components of the access device **116**, in accordance with an embodiment of the invention. The access device **116** may include a system bus **720** to connect the various components. Examples of system bus **720** include several types of bus structures including a memory bus, a peripheral bus, or a local bus using any of a variety of bus architectures. As discussed with reference to FIGS. **1**C and **2**C, the access device **116** may be any device capable of data and/or voice communications through the network **104** or the remote devices **106***a-n*. Examples of the access device **116** include, but are not limited to, a router, a printer, a music system, a telephone, a set top box, a hub, a gateway, a mobile phone, and so forth. In an embodiment of the invention, the access device **116** may not have or may have limited display capability. The access device **116** may include a plurality of ports **722** for connecting to the network **104**, and/or the display device **118**. Examples of the ports **722** may include, but are not limited to, parallel ports, serial ports, DB-2 connector, IEEE 1284, IEEE 1394 ports, 8P8C ports, PS/2 ports, RS-232 ports, Registered Jack (RJ) 45 ports, RJ 48 ports, VGA port, Small Computer System Interface (SCSI) ports, USB ports, DB-25 ports, and so forth. The access device **116** may be connected to a display device **118**. Further, the access device **116** may connect to the remote devices **106***a-n* through the network **104**. The access device **116** may access and control the remote devices **106***a-n* and service **202***a-n*. In an embodiment of the invention, the access device **116** may have a unique access device identity (ID). The access device **116** may be authorized based on this unique access device ID.

[0167] The access device **116** can connect to the network **104** through a network interface **714**. An Input/Output (IO) interface **716** of the device **102** may be configured to connect external or peripheral devices such as a memory card **718***a*, a keyboard **718***b*, a mouse **718***c*, and a Universal Serial Bus (USB) device **718***d*. Although not shown, various other devices can be connected through the IO interface **716** to the access device **116**. In an embodiment of the invention, the

access device **116** may be connected to a hub or gateway device that provides various services such as voice communication, network access, television services and so forth. For example, the hub may be a Home Gateway device that acts as a hub between the access device and the network **104**.

[0168] The access device **116** may use the screen of the display device **118** to output graphical information to the user of the access device **116**. Further, the access device **116** may include a memory **704** to store various programs, data and/or instructions that can be executed by a processor **702**. Examples of the memory **704** include, but are not limited to, a Random Access Memory (RAM), a Read Only Memory (ROM), a hard disk, and so forth. A person skilled in the art will appreciate that other types of computer-readable media which can store data that is accessible by a computer, such as magnetic cassettes, flash memory cards, digital video disks, and the like, may also be used by the access device **116**. The memory **704** may store a graphical user interface (GUI) **706** for accessing the visual access menus of the remote devices **106***a-n* and/or services **202***a-n*. The GUI may provide an interface to the user(s) to access the visual access menus or enhanced visual access menus. In an embodiment of the invention, the GUI may be used to configure or create the Internet of Things menus. The Internet of Things menu may include representations of one or more recognizable or identifiable objects such as, but are not limited to, remote devices **106***a-n* or services in an Internet or network like structure. The one or more identifiable objects may be physical or virtual objects.

[0169] The memory **704** may include a database **708** to store the visual access menus or the Internet of Things menus corresponding to the remote devices **106***a-n* and/or the services **202***a-n*. Further, the database **708** may store user preferences related to the remote devices **106***a-n* and the services **202***a-n*. Further, the database **708** may store the alert and reminder messages. In an embodiment of the invention, the database **708** may store information about the services **202***a-n*. Further, the database **708** may be updated at a predefined time interval. For example, the database **708** may be updated after every 4 days, once in a week, monthly, and so forth. In an embodiment of the invention, the updates related to the visual access menus and remote devices **106***a-n* or services **202***a-n* may be received from the server **114** as shown in FIG. **2**B. In an embodiments of the invention, the updates may be received from the network **104**

[0170] Further, the memory **704** may store an application such as a VMThings **710** to connect to the remote devices **106***a-n* and the services **202***a-n* remotely. Further, the VMThings **710** may connect the access device **116** to the display device **118**. The VMThings **710** may display a visual representation in form of visual access menus or the Internet of Things menus of the remote devices **106***a-n* or services **202***a-n* at the display device **118**. The display device **118** may further include a radio interface **712** configured for wireless communications with other devices. The user can select one or more option from the visual access menu or the Internet of Things menu to connect to a particular service. Further, the VMThings **710** may connect the user to the remote devices **106***a-n* or the services **202***a-n* based on the selection of the options. Further, the VMThings **710** may be configured to enable the device **102** to receive images, videos, and so forth related to the remote devices **106***a-n* or services **202***a-n* irrespective of their location. In an embodiment of the invention, the VMThings **710** may be implemented as software or firmware or hardware or a combination of these at the access device **116**.

[0171] In an embodiment of the invention, the display device **118** may include a touch sensitive screen. Therefore, the user can provide inputs or may select an option from the visual access menu or the Internet of Things menu by touching the screen of the display device **118** or by point and click using the mouse **718***c*. The user can interact with the visual access menu or the Internet of Things menu by pressing a desired key or combination or keys from the keyboard **718***b*. For example, the user can press a '3' key from the keyboard **620***b* to select a node **3** in the visual access menu or the Internet of Things menu. Further, the user can directly select the node **3** of the visual access menu or the Internet of Things menu, in case of a touch sensitive screen.

[0172] Further, the size of the visual access menu or the Internet of Things menu may differ depending on the number of service options. As a result, all the service options of the visual access menu or the Internet of Things menu may not be displayed together on the screen of the display device **118**. In such a case, the VMThings **710** may allow the user to navigate by scrolling horizontally and/or vertically to view various service options in the visual access menu or the Internet of Things menu. Further, the VMThings **710** may detect the capability of the screen of the display device **118** before displaying the visual access menu or the Internet of Things menu. For example, in case the display device **118** is a basic mobile phone with limited functionality of the display screen, various device options or the service options of the enhanced visual access menu or the Internet of Things menu may be displayed as a list including one or more options.

[0173] In an embodiment of the invention, the database **708** may be updated based on the feedback of the one or more users or based on error report received from the other sources. In an embodiment of the invention, the VMThings **710** may update the database **708** based on crowd sourcing. It means the database **708** may be updated based on feedback or reviews or thoughts of other users. For example, if 80 users out of 100 users visiting a website and accessing the visual access menus says that there is some error in the system of controlling a particular object, then based on the ratings provided by these users, the record or the menu for the particular object in the database **708** may be updated. The VMThings **710** may also learn the problem associated with the visual access menus or the device or the objects from many other sources and may find a solution based on many other users. Examples of the other sources include, but are not limited to, other network devices, remote devices **106***a-n*, services **202***a-n*, users, server, and so forth.

[0174] Further, the memory **704** may include other applications that enable the user to communicate/interact with the services **202***a-n* through the network **104**. Examples of other applications include, but are not limited to, Skype, Google Talk, Magic Jack, and so forth. Other applications may be stored as software or firmware on the display device **118**. Further, the memory **704** may include an Operating System (OS) (not shown) for the access device **116** to function.

[0175] Though not shown, the access device **116** may include a camera, a microphone, a speaker, and so forth. In an embodiment of the invention, the display device **118** may include the camera or the speaker or the microphone, and so

forth. The user may provide voice commands by using the microphone. Further, the user may provide the input or select the option by clicking an image through a camera. The user may control one or more operations of the remote devices **106***a-n* by making gestures or hand movements in front of the camera of the device **102**. The speaker may also be used to output music and voice responses to the user. The user may input one or more key or key combinations using the keyboard **718***b*. The keyboard **718***b* may be a physical keyboard or a virtual keyboard displayed on a touch screen display of the display device **118**. In an embodiment, the keyboard **718***b* may be a keypad on the access device **116** or the display device **118**. Subsequently, after some processing by the VMThings **710**, an enhanced visual access menu corresponding to the services **202***a-n* based on the user inputs or selection is searched and displayed on the screen of the display device **118**.

[0176] In an embodiment of the invention, the VMThings **710** may be configured to recognize the context of the voice inputs received from the users or other sources. The VMThings **710** may take an action based on the context of the voice inputs.

[0177] Further, the user may forward or move the display of the device to another device by providing a selection or input. In an embodiment of the invention, the VMThings **710** may forward or transfer the display from a device to another device based on the user inputs. For example, the user may transfer the visual menu displayed on his/her smart phone to another smart phone by tapping at the display of the smart phone. The input for doing so may be a voice command, a selection of one or more keys, touching the display, gesture, and so forth. In an embodiment of the invention, the user may transfer the display from a device to a wall.

[0178] In an embodiment, the memory **704** may include a web browser to display web pages from the network **104** and/or other computer networks. The user may use the web browser to open a website for accessing the visual access menu(s). In an embodiment, the user may store the login details for the website(s) at the device. Therefore, the user can connect to the services **202***a-n* from the web browser automatically and may not be required to enter his/her login details every time to login to the website.

[0179] In an embodiment of the invention, the database **708** may be updated based on addition or deletion of the one or more objects. For example, if a new remote device or service is added to the list of devices or services to be controlled then the visual access menu in the database may be updated accordingly. Further, the VMThings **710** may detect errors which may occur during the user interaction with the visual access menu. The VMThings **710** may also report to the user about these errors. In an embodiment of the invention, the errors may occur due to some other reasons such as technical reasons, network failure, and so forth. In an embodiment of the invention, the errors may be reported in form of such as, but not limited to, text report, images, an MMS, a SMS, an E-mail, voice messages, and so forth. In another embodiment of the invention, the VMThings **710** may maintain and store a log of errors reported and actions taken to correct them in the database **708**.

[0180] In an embodiment of the invention, the database **708** may be created by a human operator or an automatic application. The human operator may listen to various options of the audio menus of the one or more objects and may create a visual access menu or visual Internet of Things menus accordingly. In an embodiment of the invention, the database **708** may be created based on one or more instructions of the users by the human operator.

[0181] In an embodiment of the invention, the database **708** may be created based on the information of a yellow pages directory. The plurality of objects may be categorized based on the category mentioned in the yellow pages. Further, the visual access menus or the Internet of Things menus in the database may be created based on the categories of the objects according to the yellow pages.

[0182] FIG. **8** illustrates a flowchart for controlling remote devices when the visual access menus or the Internet of Things menus are accessed through an access device, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**A and **2**A, the user of the device such as a smart phone may connect to a plurality of objects in the network such as remote devices and services. In an embodiment of the invention, the objects may be a combination of the remote devices and services. Further, the device may control one or more operations of the remote devices. The device may include an Internet of Things application such as a VMThings configured to display graphical information to the user. The VMThings may display visual access menus (or enhanced visual access menus) or the Internet of Things menus at the device for controlling remote devices or services irrespective of the location of the remote devices or services. In an embodiment of the invention, the Internet of Things menu may include representations of one or more recognizable or identifiable objects such as, but are not limited to, remote devices or services in an Internet or network like structure. The one or more identifiable objects may be physical or virtual objects. In an embodiment of the invention, a graphical user interface (GUI) may be used by the user for creating the Internet of Things menu. The objects may be the remote devices or services. In an embodiment of the invention, the device may be connected to a display device such as an LCD screen, a TV, an LED screen, a projector screen and so forth. In an embodiment of the invention, the device or remote devices may be connected to each other through a local network such as a wireless network like Bluetooth, RF4CE network, and so forth or through a wired network like Local Area Network (LAN).

[0183] At step **802**, a database including visual access menus may be accessed through a graphical user interface (GUI) at the device. In an embodiment of the invention, the GUI may be accessed at the device by the user. At step **804**, a visual access menu or the Internet of Things menu may be displayed at the device. In an embodiment of the invention, the VMThings may display the visual access menus and the Internet of Things menu at the device. The visual access menu may include one or more options such as, but are not limited to, a remote devices option, a services option, and so forth. The user may select an option from these options. The VMThings may receive an input from the user. The input may be a selection of option by the user. In an embodiment of the invention, the device may include a touch sensitive screen. In an embodiment of the invention, the user may select an option by touching the screen of the device. In another embodiment of the invention, the user may select an option by making a gesture or hand movement or through a voice command. The gestures, hand movements or the voice commands may be detected by the display device. In an

embodiment of the invention, the VMThings may detect the gestures or hand movements or the voice commands. Further, the VMThings of the device may understand and accept voice inputs from the user in different languages irrespective of the device language. Therefore, the user may control the remote devices by giving voice commands in different languages such as, but are not limited to, English, Spanish, French, Hindi, Chinese language, Japanese language, Hawaiian, German language, and so forth.

[0184] At step **806**, an enhanced visual access menu or an enhanced Internet of Things menu for remote devices based on a selection of an option by a user may be displayed at the display device when the user selects the remote devices option from the visual access menu. The enhanced visual access menu for devices may include one or more device options. In an embodiment of the invention, the VMThings of the device may display a visual access menu or an enhanced visual access menu or an Internet of Things menu in different languages. Further, the device or the remote devices may have one language and the user may want to control and communicate in a different language, the user may do this via the VMThings application. The user may select a service option from these service options. At step **808**, a selection of a device option may be received from the user. The user may provide the selection by touching the screen of the display device or by making some gestures or through hand movements in front of the display device or the access device. In an embodiment of the invention, the user may select a service option through a voice command or instruction.

[0185] At step **810**, the user may be connected to a remote device based on the selection of a device option. In an embodiment of the invention, the VMThings may also check whether the remote device corresponding to the device selected by the user is registered to be monitored by the user or not. In another embodiment of the invention, the user may be required to authenticate his/her identity before accessing or connecting to the remote devices **106***a-n*. Thereafter, at step **812**, the user may control one or more operations of the remote device based on the selection of the device option. For example, the user may view real time pictures of the remote device, the user may switch on the remote device, and so forth.

[0186] FIG. **9** illustrates a flowchart for controlling services when the visual access menus, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**C and **2**C, the services may be accessed and/or controlled by using an access device. At step **902**, a graphical user interface (GUI) for accessing or creating an Internet of Things menu or a visual access menu may be displayed at the device. In an embodiment of the invention, the VMThings may display the GUI at the device. In an embodiment of the invention, the GUI may be accessed or opened by the user of the device. The visual access menu or the Internet of Things menu may include one or more options such as, but are not limited to, a remote devices option and a services option. The user may select any of these options.

[0187] At step **904**, an input including an option selected by the user is received at the device. In an embodiment of the invention, the device may include a touch sensitive screen. In another embodiment of the invention, the user may select an option by making a gesture or hand movement or through a voice command. The gestures may be such as, but are not limited to, a thumb up, a head nod, a smile, a laughter, a thumb down, showing two fingers, and so forth. In an embodiment of the invention, the VMThings of the device may detect the gestures or hand movements or the voice commands and may receive a selection of the option. Further, the VMThings of the device may understand and accept voice inputs from the user in different languages irrespective of the device language.

[0188] At step **906**, an enhanced visual access menu or an enhanced Internet of Things menu for services based on a selection of an option by a user may be displayed at the device when the user selects the services option from the visual access menu. The enhanced visual access menu for services may include one or more service options. In an embodiment of the invention, the VMThings of the device may display the enhanced visual access menu in different languages as per the user's instruction or convenience. Further, the device or the remote devices may have one language and the user may control and communicate in a different language via the VMThings. In such a scenario, the VMThings may display the visual access menu at the device in a language(s) preferred by the user. The VMThings will do the required translation of language. In an embodiment of the invention, the VMThings may display more than one visual access menus at the screen of the device. The multiple visual access menus may be displayed in different languages. The user may select a service option from these service options. At step **908**, a selection of a service option may be received from the user. In an embodiment of the invention, the user may select a service option through a voice command or instruction.

[0189] At step **910**, the user may be connected to a service based on the selection of the service option. The VMThings may also check whether the information for the selected service option is available at the device. If the information is not available, then the information may be requested and/or received from a server. Thereafter, at step **912**, information about the service may be displayed at the display device based on the selection of the service option. The user may interact with the information accordingly. In an embodiment of the invention, the information may include text, graphics, audio, video, or hyperlinks.

[0190] FIGS. **10**A, **10**B, and **10**C illustrate a flow diagram for controlling objects by using a device in a network, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**A and **2**A, the user of the device such as a smart phone may connect and control various objects in the network. In an embodiment of the invention, the objects may include remote devices such as a car, a washing machine, door, truck, and so forth. In another embodiment of the invention, the objects may be services such as entertainment, banking, hotels, and so forth as described in FIG. **2**A-I. In yet another embodiment of the invention, the objects may be combination of the remote devices and services. Further, the device may control one or more operations of the remote devices. The user at the device may also view information about various services. The device may include an Internet of Things application i.e. VMThings configured to display graphical information at the device. In an embodiment of the invention, the VMThings may display the visual access menus at the device for controlling remote devices or services irrespective of location of the remote devices or services.

[0191] At step **1002**, a graphical user interface (GUI) for accessing or configuring an Internet of Things menu or a

visual access menu may be displayed at the device. In an embodiment of the invention, the VMThings may display the GUI at the device. In an embodiment of the invention, the GUI may be opened by the user of the device. The visual access menu may include one or more options such as, but are not limited to, a remote devices option and a services option. The user may select any of these options.

[0192] At step **1004**, an input including an option selected by the user is received at the device. At step **1006**, it is checked whether the input is for accessing services. The input is for accessing services when the user selects the services option. If the input is for accessing services then the process control goes to step **1014**, else the process control goes to step **1008**.

[0193] At step **1008**, it is checked whether the input is for accessing the remote devices. In an embodiment of the invention, the input is for accessing remote devices such as car, microwave, garage, doors, and so forth, when the user selects the remote devices option from the visual access menu. If the input is for accessing the remote devices then the control goes to step **1012**, else the process waits for an input from the user at the device at step **1010**.

[0194] At step **1014**, it is checked whether a visual access menu or an Internet of Things menu for services is available at the device. If not available then at step **1016**, the visual access menu of the services may be retrieved from a server in the network else the process continues to step **1018**. At step **1018**, the visual access of the services menu including one or more service options may be displayed at the device. The service options may be graphics icons and/or text representing services. The user may select an option(s) from the service options. At step **1020**, a selection of a service option may be received from the user at the device. Thereafter, at step **1022**, it is checked whether, information corresponding to the selected service option is available at the device. If not available the information may be requested and received from the server at step **1024**. Then, at step **1026**, the information may be displayed at the device based on the received selection of the service option. For example, the user may check his/her credit card bill through banking service option and may also know different ways of making the payment and information about nearby payment office.

[0195] When at step **1008** the input is for accessing the remote devices then at step **1012**, it is checked whether a visual access menu for remote devices is available at the device. If not available then the visual access menu of the remote devices is retrieved from the server at step **1028**. Then at **1030**, the visual access menu including one or more device options may be displayed at the device. The device options may be graphics icons and/or text representing remote devices. The user may select a device option(s) from the visual access menu of the remote devices. Further, at step **1032**, information corresponding to the user's selection may be received. At step **1034**, a connection between the device and a remote device is established based on the received selection. Thereafter, at step **1036**, the user may control the remote device(s) irrespective of location of the remote devices.

[0196] FIG. **11** illustrates a flowchart for controlling remote devices while accessing the visual access menu or the Internet of Things menu through a web browser, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**B and **2**B, the user of the device **102** may access the remote devices and/or services by using a web browser such as Google Chrome, Internet Explorer at the device. In an embodiment of the invention, the user may access the web browser at the access device connected to the display device.

[0197] At step **1102**, the user may open a website through a web browser at the device. The user may open the website by entering a Uniform Resource Locator (URL) of a website at the web browser. The website may allow the user to access visual access menus. In an embodiment of the invention, the website is displayed at the display device. At step **1104**, the user may authenticate his/her identity by entering one or more details in one or more fields on the web page. The VMThings may check whether the user is an authorized user or not based on a unique user ID of the user. The VMThings may store the user IDs at the device. In an embodiment of the invention, the website may maintain the database of user IDs authorized to access the remote devices or the services. At step **1106**, a visual access menu including one or more options is displayed at the device. In an embodiment of the invention, an Internet of Things menu may be displayed. The Internet of Things menu may include representations or icons of one or more recognizable or identifiable objects such as, but are not limited to, remote devices **106***a-n* or services in an Internet or network like structure. In an embodiment of the invention the VMThings may display the visual access menu or the Internet of Things menu at the device. In another embodiment of the invention the VMThings may display the visual access menu at the display device connected to the access device. The one or more options can be such as a remote devices option, a services option, and so forth. The user may select an option from these options. At step **1108**, an input regarding the selection of the option may be received from the user at the device.

[0198] At step **1110**, an enhanced visual access menu for the remote devices may be displayed at a screen of the device or the web browser when the user selects the remote devices option from the visual access menu. In an embodiment of the invention, an enhanced Internet of Things menu for the remote devices may be displayed at a screen of the device or the web browser when the user selects the remote devices option from the visual access menu. As shown in FIG. **3**C, the display of the device may switch based on the selection of the option. In an embodiment of the invention the enhanced visual access menu or the Internet of Things menu for the remote devices may be retrieved from the server. The enhanced visual access menu for the remote devices may include one or more device options. In an embodiment of the invention, the enhanced Internet of Things menu for the remote devices may include one or more representations corresponding to the remote devices. The user may select a device option from the displayed enhanced visual access menu of the remote devices. Each device option may represent a remote device which the user can control. Further, the options, service options, and device options may be represented as graphics or/and text on the visual access menus. At step **1112**, a selection of a device option may be received from the user at the device. In an embodiment of the invention, the VMThings may detect the selection received from the user. In an embodiment of the invention, the user may select the device option by touching the device option at display of the device. In an embodiment of the invention, the user may provide the selection of the device option through voice inputs or commands and/or

gestures or hand movements such as, but are not limited to, a thumb up, a head nod, and so forth. Further, the voice inputs or commands may be in different languages such as English, Spanish, and so forth. The VMThings may detect, understand and translate the voice commands into a language which can be understood by the device.

[0199] At step **1114**, a connection between the device and the remote device(s) is established by the VMThings. Thereafter, at step **1116**, the user may control one or more operations of the connected remote devices irrespective of their location. For example, the user may switch on an AC located at his/her home while driving back to home. In an embodiment of the invention, the VMThings at the device may change the voice commands into text and may respond or control the remote devices accordingly.

[0200] FIG. **12** illustrates a flowchart for controlling services while accessing the visual access menu through a web browser, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**B and **2**B, the user of the device **102** may access the services by using a web browser such as Google Chrome, Internet Explorer at the device. In an embodiment of the invention, the user may access the web browser at the access device connected to the display device.

[0201] At step **1202**, the user may open a website through a web browser at the device. The user may open the website by entering a Uniform Resource Locator (URL) of a website at the web browser such as Google Chrome. The web site may allow the user to access visual access menus. In an embodiment of the invention, the website is displayed at the display device. At step **1204**, the user may authenticate his/her identity by entering one or more details in one or more fields on the web page. At step **1206**, a visual access menu including one or more options is displayed at the device. In an embodiment of the invention, an Internet of Things menu may be displayed at the device. In an embodiment of the invention the VMThings may display the visual access menu at the device. In another embodiment of the invention the VMThings may display the visual access menu at the display device connected to the access device. The user may select an option from the options such as a remote devices option or the services option of the visual access menu. At step **1208**, an input from the user may be received at the device.

[0202] At step **1210**, an enhanced visual access menu for the services may be displayed at a screen of the device or the web browser when the user selects the services option from the visual access menu. In an embodiment of the invention, an enhanced Internet of Things menu for the services may be displayed at a screen of the device or the web browser when the user selects the services option from the Internet of Things menu. As shown in FIG. **3**D, the display of the device may switch based on the selection of the option. In an embodiment of the invention, the enhanced visual access menu or the enhanced Internet of Things menu for the services including the one or more service options may be retrieved from the server. The user may select a device option from the displayed enhanced visual access menu of the services. Each service option may represent a service. At step **1212**, a selection of a service option may be received from the user at the device. In an embodiment of the invention, the VMThings may detect the selection received from the user. In an embodiment of the invention, the user may select the service option by touching the service option at display of the device. In an embodiment of the invention, the user may provide the selection of the service option through voice inputs or commands and/or gestures or hand movements such as, but are not limited to, a thumb up, a head nod, and so forth. Further, the voice inputs or commands may be in different languages such as English, Spanish, and so forth. The VMThings may detect, understand and translate the voice commands into a language which can be understood by the device or the services

[0203] At step **1214**, a connection between the device and the remote device(s) may be established by the VMThings. Thereafter, at step **1216**, the user may control one or more operations of the connected remote devices irrespective of their location. For example, the user may switch on an AC located at his/her home while driving back to home. In an embodiment of the invention, the VMThings at the device may change the voice commands into text and may respond or access the services accordingly. Further, the VMThings may store the voice commands in different languages at the device (or the access device). The VMThings also stores the list of actions corresponding to the various voice commands, gestures, hand movements, and so forth.

[0204] FIGS. **13**A, **13**B, and **13**C illustrate a flowchart for controlling objects in a network while accessing the visual access menu through a web browser, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**B and **2**B, the user of the device **102** may access various objects such as, but are not limited to, remote devices and/or services by using a web browser such as Google Chrome, Internet Explorer at the device. In an embodiment of the invention, the user may access the web browser at the access device connected to the display device.

[0205] At step **1302**, the user may open a website through a web browser at the device. The user may open the website by entering a Uniform Resource Locator (URL) of a website at the web browser. The web site may allow the user to access visual access menus. In an embodiment of the invention, the website is displayed at the display device. At step **1304**, the user may authenticate his/her identity by entering one or more details in one or more fields on the web page. At step **1306**, a visual access menu comprising one or more options is displayed at the device. In an embodiment of the invention the VMThings may display the visual access menu at the device. In another embodiment of the invention the VMThings may display the visual access menu at the display device connected to the access device. The one or more options can be such as a remote devices option, a services option, and so forth. The user may select an option from these options. At step **1308**, an input from the user may be received at the device. Then at step **1310**, it is checked whether the input is for accessing services. If outcome of the step **1310** is true then the control goes to step **1316**, else step **1312** is followed.

[0206] At step **1312**, it is checked whether the input received at step **1308** is for accessing remote devices. If true then the control goes to step **1330** else the process waits for an input at the user at step **1314**. At step **1316**, it is checked whether, an enhanced visual access menu for services is available at the device. If the enhanced visual access menu is not available then at step **1318**, the enhanced visual access menu may be retrieved from the server else step **1320** is executed. Then at step **1320**, the enhanced visual access menu including one or more service options such as for banking, entertainment etc. is displayed at the device. The

user may select a service option from the service options. At step **1322**, a selection of a service option from the user may be received. Then at step **1324**, it is checked whether information for selected service option is available at the device. If not available then the information may be requested and received from the server at step **1326**. Then at step **1328**, the information may be displayed at the device based on the received selection.

[0207] If at step **1312**, the input is for accessing the remote device, then at step **1330**, it is checked whether an enhanced visual access menu for the remote services is available at the device. If not available, then at step **1332**, the enhanced visual access menu for the remote devices including the one or more device options may be retrieved from the server else step **1334** may be executed. At step **1334**, the enhanced visual access menu including the device options may be displayed at the device or the web browser. In an embodiment of the invention, the enhanced visual access menu may be displayed at the display device connected to the display device or the access device.

[0208] The user may select a device option from the displayed enhanced visual access menu of the remote devices. Each device option may represent a remote device. Further, the options, service options, and device options may be represented as graphics or/and text on the visual access menus. At step **1336**, a selection of a device option may be received from the user. In an embodiment of the invention, the user may select the device option by touching the device option at display of the device. In an embodiment of the invention, the user may provide the selection of the device option through voice inputs or commands and/or gestures or hand movements such as, but are not limited to, a thumb up, a head nod, and so forth. The VMThings may detect, understand and translate the voice commands into a language which can be understood by the device. In an embodiment of the invention, the VMThings at the device may change the voice commands into text and may respond or control the remote devices accordingly.

[0209] At step **1338**, a connection between the device and the remote device(s) is established by the VMThings. Thereafter, at step **1340**, the user may control one or more operations of the connected remote devices irrespective of their location. For example, the user may switch on an AC located at his/her home while driving back to home.

[0210] FIG. **14** illustrates a flow diagram for controlling the remote devices through a website, in accordance with another embodiment of the invention. At step **1402**, the user may open a website through a web browser at the device. The website is for accessing the remote devices or visual access menus corresponding to the remote devices. The user may open the website by entering a Uniform Resource Locator (URL) of the website in the web browser. The web site may allow the user to access visual access menus of the remote devices (or services as explained in FIG. **12**). In an embodiment of the invention, the website is displayed at the display device. Each of the remote devices may have an associated unique ID. Similarly, the device may also have a unique device ID. The remote devices are registered with the device. Further, the user may have to register him/her so as to be able to access the remote devices.

[0211] At step **1404**, a visual access menu including one or more options may be displayed at the device. In an embodiment of the invention the VMThings may display the visual access menu at the device. In another embodiment of the invention the VMThings may display the visual access menu display device connected to the access device. The one or more options can be such as a remote devices option, a services option, and so forth. The user may select an option from these options. At step **1406**, an input including a selection of the option may be received at the device from the user.

[0212] At step **1408**, an enhanced visual access menu for the remote devices may be displayed at a screen of the device or as the web page when the user selects the remote devices option from the visual access menu. As shown in FIG. **3**C, the display of the device may switch based on the selection of the option. In an embodiment of the invention the enhanced visual access menu for the remote devices including the one or more device options may be retrieved from the server. The user may select a device option from the displayed enhanced visual access menu of the remote devices. Each device option may represent a remote device which can be controlled. Further, the options, service options, and device options may be represented as graphics or/and text on the visual access menus.

[0213] At step **1410**, a selection of a device option may be received from the user at the device. In an embodiment of the invention, the VMThings may detect the selection received from the user. In an embodiment of the invention, the user may select the device option by touching the device option at display screen of the device. In an embodiment of the invention, the user may provide the selection of the device option through voice inputs or commands and/or gestures or hand movements such as, but are not limited to, a thumb up, a head nod, and so forth. Further, the voice inputs or commands may be in different languages such as English, Spanish, and so forth. The VMThings may detect, understand and translate the voice commands into a language which can be understood by the device. At step **1412**, a connection between the device and the remote device(s) is established by the VMThings. Thereafter, at step **1414**, the user may control one or more operations of the connected remote devices irrespective of their location. For example, the user may switch on an AC located at his/her home while driving back to home. In an embodiment of the invention, the VMThings at the device may change the voice commands into text and may respond or control the remote devices accordingly.

[0214] FIG. **15** illustrates a flowchart for controlling remote devices when the visual access menus are accessed through an access device, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**C and **2**C, the remote devices may be controlled by using an access device. The access device may be any communication device capable of connecting to a network or a local network. In an embodiment of the invention, the access device may have limited display capabilities or no display capabilities. Examples of the access device include, but are not limited to, a set top box, a home gateway, a hub, a router, a bridge, a mobile phone, a smart phone, a printer, a scanner, a computer, a PDA, a pager, a watch, a tablet computer, a music player, an IPod, a telephone, and so forth. The access device may include an Internet of Things application such as a VMThings application for displaying visual access menus for controlling the remote devices or services at the display device. The access device may be connected to a display device such as an LCD screen, a projector screen, a television, and so forth. The display device may be a device

including a display (or a large display screen). The access device may further include an application VMThings configured to display visual access menus and information to the user. In an embodiment of the invention the access device may act as the device itself. In another embodiment of the invention, the device may also be connected to the display device.

[0215] At step **1502**, a database including visual access menus may be accessed through a graphical user interface (GUI) at the access device. In an embodiment of the invention, the GUI may be accessed via the access device by the user. At step **1504**, a visual access menu may be displayed at the display device. In an embodiment of the invention, the VMThings may display the visual access menus at the display device. The visual access menu may include one or more options such as, but are not limited to, a remote devices option, a services option, and so forth. The user may select an option from these options. The VMThings may receive an input from the user. The input may be a selection of option by the user. In an embodiment of the invention, the display device may include a touch sensitive screen. In an embodiment of the invention, the user may select an option by touching the screen of the display device. In another embodiment of the invention, the user may select an option by making a gesture or hand movement or through a voice command. The gestures, hand movements or the voice commands may be detected by the display device. In an embodiment of the invention, the VMThings of the access device may detect the gestures or hand movements or the voice commands. Further, the VMThings of the access device may understand and accept voice inputs from the user in different languages irrespective of the device language. Therefore, the user may control the remote devices by giving voice commands in different languages such as, but are not limited to, English, Spanish, French, Hindi, Chinese language, Japanese language, Hawaiian, German language, and so forth.

[0216] At step **1506**, an enhanced visual access menu for remote devices based on a selection of an option by a user may be displayed at the display device when the user selects the remote devices option from the visual access menu. The enhanced visual access menu for devices may include one or more device options. In an embodiment of the invention, the VMThings of the access device may display visual access menu or enhanced visual access menu in different languages. Further, the access device or the remote devices may have one language and the user may want to control and communicate in a different language, the user may do this via VMThings application. The user may select a service option from these service options. At step **1508**, a selection of a device option may be received from the user. The user may provide the selection by touching the screen of the display device or by making some gestures or through hand movements in front of the display device or the access device. The gestures may be such as, but are not limited to, a thumbs up, a head nod, a smile, a laughter, a thumbs down, showing two fingers, and so forth. In an embodiment of the invention, the user may select a service option through a voice command or instruction.

[0217] At step **1510**, the user may be connected to a remote device based on the selection of a device option. In an embodiment of the invention, the VMThings may also check whether the remote device corresponding to the device selected by the user is registered to be monitored by the user or not. Thereafter, at step **1512**, the user may control one or more operations of the remote device based on the selection of the device option. For example, the user may view real time pictures of the remote device, the user may switch on the remote device, and so forth.

[0218] FIG. **16** illustrates a flowchart for controlling services when the visual access menus are accessed through an access device, in accordance with an embodiment of the invention. As discussed with reference to FIGS. **1**C and **2**C, the services may be accessed and/or controlled by using an access device. At step **1602**, a database including visual access menus may be accessed through a graphical user interface (GUI) at the access device. In an embodiment of the invention, the GUI may be accessed via the access device by the user.

[0219] At step **1604**, a visual access menu may be displayed at the display device. In an embodiment of the invention, the VMThings of the access device may display the visual access menus at the display device. The visual access menu may include one or more options such as, but are not limited to, a remote devices option, a services option, and so forth. The user may select an option from these options. The VMThings may receive an input from the user. The input may be a selection of option by the user. In an embodiment of the invention, the display device may include a touch sensitive screen. In an embodiment of the invention, the user may select an option by touching the screen of the display device. In another embodiment of the invention, the user may select an option by making a gesture or hand movement or through a voice command. The gestures, hand movements or the voice commands may be detected by the display device. In an embodiment of the invention, the VMThings of the access device may detect the gestures or hand movements or the voice commands. Further, the VMThings of the access device may understand and accept voice inputs from the user in different languages irrespective of the device language. Therefore, the user may control the remote devices by giving voice commands in different languages such as, but are not limited to, English, Spanish, French, Hindi, Chinese language, Japanese language, Hawaiian, German language, and so forth.

[0220] At step **1606**, an enhanced visual access menu for services based on a selection of an option by a user may be displayed at the display device when the user selects the services option from the visual access menu. The enhanced visual access menu for services may include one or more service options. In an embodiment of the invention, the VMThings of the access device may display visual access menu or enhanced visual access menu in different languages. Further, the access device or the remote devices may have one language and the user may want to control and communicate in a different language. The user may select a service option from these service options. At step **1608**, a selection of a service option may be received from the user. In an embodiment of the invention, the user may select a service option through a voice command or instruction.

[0221] At step **1610**, the user may be connected to a service based on the selection of a service option. The VMThings may also check whether the information for the selected service option is available at the device. If the information is not available, then the information may be requested and/or received from a server. Thereafter, at step **1612**, information about the service may be displayed at the display device based on the selection of the service option.

The user may interact with the information accordingly. In an embodiment of the invention, the information may include text, graphics, audio, video, or hyperlinks.

[0222] FIGS. **17**A, **17**B and **17**C illustrate a flow diagram for controlling various objects in a network through an access device, in accordance with an embodiment of the invention. At step **1702**, a GUI for accessing the visual access menus may be displayed at the display device. The VMThings may display the visual access menus at the display device. The visual access menu may include one or more options such as, but are not limited to, a remote devices option, a services option, and so forth. The user may select from these options. At step **1704**, an input from the user may be received. The input may be a selection of option by the user. In an embodiment of the invention, the display device may include a touch sensitive screen. In an embodiment of the invention, the user may select an option by touching the screen of the display device. In another embodiment of the invention, the user may select an option by making a gesture or hand movement or through a voice command. At step **1706**, it is checked whether, the input is for accessing the services. If the input is for accessing services then process control goes to step **1714** else step **1708** is executed. At step **1708**, it is checked whether, the input received at step **1704** is for accessing remote device(s). If the input is for accessing remote devices then step **1712** is executed, else the process waits for input from user at the access device at step **1710**.

[0223] At step **1714**, it is checked whether, a visual access menu of the services is available at the access device. If the visual access menu for accessing services is available then process control goes to step **1718**, else step **1716** is executed. At step **1716**, the visual access menu for accessing the services is received from a server in the network. Examples of the services may include, but are not limited to, banking services, entertainment service, tours and travel services, and so forth.

[0224] At step **1718**, the visual access menu including one or more service options for accessing the services may be displayed at the screen of the display device. The user may select a service option from these service options. At step **1720**, a selection of a service option may be received from the user. The user may provide the selection by touching the screen of the display device or by making some gestures in front of the display device or the access device. In an embodiment of the invention, the user may select a service option through a voice command or instruction.

[0225] At step **1722**, it is checked whether the information for the selected service option is available at the device. If the information is not available, then the information may be requested and/or received from the server at step **1724**, else step **1726** is executed. At step **1726**, the information of the selected services may be displayed at the display device. Thereafter, the user may interact with the visual access menu for accessing services accordingly.

[0226] If at step **1708**, the input is for accessing the remote devices, then step **1712** is executed. At step **1712**, it is checked whether, a visual access menu of the remote devices is available at the access device. If the visual access menu for the remote device is available then step **1730** is executed, else the visual access menu of the remote devices is retrieved from the server at step **1728**. At step **1730**, the visual access menu including one or more device options is displayed at the display device. The device options may be graphics icons and/or text representing remote devices. The user may be enabled to select a device option(s) from the visual access menu of the remote devices, at step **1732**. At step **1734**, a connection between the device and a remote device is established based on the received selection. Thereafter, at step **1736**, the user may control the remote device(s) irrespective of a location of the remote devices. For example, the user sitting in his/her office may regulate the temperature of the microwave located at home without being physically present at home.

[0227] FIG. **18**A illustrates an exemplary display of images, in accordance with an embodiment of the invention. As discussed before, the device **102** may receive images of the remote devices **106***a-n* (or services **202***a-n*) in real-time. In an embodiment of the invention, the access device **116** may receive the images of the remote devices **106***a-n* in real-time. In an embodiment of the invention, the images may be received at pre-defined time interval. In another embodiment of the invention, the VMThings **108** may retrieve the images in real-time or based on user's instructions. The images of more than one remote device may be displayed at the device as shown in FIG. **18**A. The image display **1802** includes images of multiple remote devices **106***a-n*. Therefore, the user may not have to connect to different remote devices individually to see their images. In an embodiment of the invention, the device **102** may receive video or audio of the remote devices **106***a-n*. Therefore, the remote devices **106***a-n* are registered with the device **102** (or the access device **116**). The images may be received and stored at the device **102** which can be accessed by the user as per his/her convenience. Further, the remote devices **106***a-n* may be grouped into various categories such as, but are not limited to, electronics appliances, home devices, buildings, doors, room appliances, switches, and so forth. Further, the VMThings **108** may display the images of multiple objects such as remote devices **106***a-n*, services **202***a-n* at a single interface or display. Further, the remote devices **106***a-n* may be grouped based on the information about the remote devices **106***a-n* in a yellow pages directory.

[0228] Further, the remote devices **106***a-n* may be grouped according to location, such as home devices, office devices, garages devices, and so forth. In an embodiment of the invention, the remote devices may be grouped based on other criteria such as, but are not limited to, functions of the remote device, utility of the remote device, type of the remote device, and so forth. The VMThings **108** of the device **102** may store visual access menus and enhanced visual access menus corresponding to the remote devices based on the various categories of the remote devices **106***a-n*. In an embodiment of the invention, the user may require to register at the remote devices **106***a-n* so as to be able to control the remote devices **106***a-n* from the VMThings **108**. In an embodiment of the invention, the user may be required to authenticate or prove his/her identity at device **102** or for the remote devices **106***a-n* before controlling one or more operations of the remote devices **106***a-n*. The VMThings **108** may also display the images of the multiple devices based on these groupings of the remote devices **106***a-n*. In an embodiment of the invention, the image display **1802** may include images of the remote devices located in kitchen of the home. In an embodiment of the invention, the VMThings **108** may display one or more advertisements related to the content of the display **1802**. Further, the advertisements may be displayed based on user preferences such as user interest, etc.

[0229] FIG. **18**B illustrates transfer of an exemplary display of images from a device to another device, in an embodiment of the invention. In an embodiment of the invention, the VMThings **108** may connect a device **102***a* to one or more devices such as a device **102***b* and transfer the displayed content such as display **1802** from the device **102***a* to the device **102***b*. As shown in FIG. **18**B, the device **102***b* can be a smart phone, a mobile phone, a picture frame, an LCD display, an LED display, a GPS screen, a PDA, a TV, a tablet computer, a projector screen, a computer, a laptop, and so forth. The VMThings **108** of the device **102***a* may transfer display **1802** to the display of the device **102***b*. Therefore, the display **1802** including one or more images of the remote devices **106***a-n* or objects may be displayed at the device **102***b*. Further, the VMThings **108** may transfer any display such as a visual access menu displayed at the device **102***a* or device **102** to the device **102***b*. In an embodiment of the invention, the device **102***b* may also include an Internet of Things application such as VMThings. In an embodiment of the invention, the display **1802** is transferred to the device **102***b* based on at least one input from the user. Examples of the at least one input may include, but are not limited to, a touch, a voice command, a gesture, a hand movement, a selection of one or more keys at the device **102**, and so forth. For example, in case of a touch sensitive screen at the device **102***a*, a user may transfer the displayed content at the display of the device **102***b* by touching the screen of the device **102***a*. In an embodiment of the invention, the user may provide the selection through dual tone multi frequency (DTMF) tones. In an embodiment of the invention, the display **1802** may be transferred based on the user input to a projection screen or a wall.

[0230] FIG. **19** illustrates an exemplary display of a cockpit **1902** at the device **102**, in accordance with an embodiment of the invention. The cockpit **1902** is an interface which enables a user to access various services, devices or objects. The cockpit **1902** may include a plurality of icons **1904***a-n* representing various objects which a user or users can access or control. The tabs **1904***a-n* may be icons or text or combination of these. The cockpit **1902** may include a tab **1904***a* which is an icon representing Interactive Voice Response System (IVR). The user may select the IVR tab **1904***a* to access various application and interfaces for interacting with IVR systems of various destinations. The destinations may be organizations or companies or individual services implementing IVR systems. In an embodiment of the invention, the user of the device **102** may connect to any of these destinations by dialing a telephone number of a destination. A tab **1904***b* is an icon corresponding to interface for controlling remote devices **106***a-n*. The user may select the Remote devices tab **1904***b* for viewing an enhanced visual access menu for controlling remote devices **106***a-n*. The remote device may be home equipments, cars, doors, electronic appliances, windows, and so forth. A tab **1904***c* is an icon corresponding to interface for controlling services **202***a-n*. The user may select the Services tab **1904***c* for viewing visual access menu for accessing or controlling services **202***a-n*.

[0231] Further, the cockpit **1902** include tabs **1904***d-n* representing other objects such as, but are not limited to, an Outlook **1904***d*, a Calendar **1904***e*, Personal E-mails **1904***f*, Messengers **1904***g*, Games **1904***h*, and so forth. The user may use the Outlook tab **1904***d* to check his/her professional or outlook mails. The user may select calendar tab **1904***e* to view calendar, and to plan his/her day. The user may use the calendar tab to do many other routine tasks such as, setting timings for meetings and appointment etc. In an embodiment of the invention, the user may be connected to an online calendar when he/she selects the calendar tab **1904***e*. In another embodiment of the invention, the user may be displayed with an offline calendar. The user may also set reminders about meetings, occasions such as anniversary, birthdays etc. using the calendar tab **1904***e*.

[0232] FIG. **20**A-B illustrates exemplary environments for providing access of the cockpit **1902** of a user to other users, in accordance with an embodiment of the invention. As shown in FIG. **19**, a user may be displayed with the cockpit **1902** for accessing various objects. Further, in an embodiment of the invention, the user may create or configure the cockpit **1902** by using various predefined controls or settings. The cockpit **1902** may include the plurality of tabs **1904***a-n* for enabling the user to access the various objects such as remote devices **106***a-n*, services **202***a-n*, and so forth. In an embodiment of the invention, the user may set up the cockpit **1902** according to his/her preferences such as language preferences, theme preferences, and so forth. The user may customize the cockpit **1902** according to his/her convenience or preferences.

[0233] In an embodiment of the invention, a first user of a first device **2002** may set up a cockpit such as the cockpit **1902** for accessing various objects at the first device **2002**. The first device **2002** may include an IVR application VMThings **2004**. The user may create the cockpit **1902** by using the VMThings **2004**. Further, the first user may provide the access of the cockpit **1902** to one or more second users. The one or more second users are associated with one or more second devices such as a second device **2006**. The second device **2006** may include an IVR application VMThings **2008**. The VMThings **2008** may display the cockpit **1902** of the first user at the second device **2006**. In an embodiment of the invention, the first device **2002** and the second device **2006** can be a portable device capable of communicating and connecting to other devices such as the remote devices **106***a-n*. Examples of the first device **2002** and the second device **2006** may include, but are not limited to, a mobile phone, a smart phone, a computer, a personal digital assistant (PDA), a tablet computer, a laptop, and so forth.

[0234] Further, the first device **2002** and the second device **2006** are connected to each other through a network **104**. The network **104** can be a wired network or a wireless network or a combination of these. The wireless network may use wireless technologies to provide connectivity among various devices. Examples of the wireless technologies include, but are not limited to, Wi-Fi, WiMAX, fixed wireless data, ZigBee, Radio Frequency **4** for Consumer Electronics network (RF4CE), Home RF, IEEE 802.11, 4G or Long Term Evolution (LTE), Bluetooth, Infrared, spread-spectrum, Near Field Communication (NFC), Global Systems for Mobile communication (GSM), Digital-Advanced Mobile Phone Service (D-AMPS). The device **102** may connect to the plurality of remote devices **106***a-n* through the network **104**. Examples of the wired network include, but are not limited to, Local Area Network (LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), and so forth. In an embodiment of the invention, the network **104** is the Internet.

[0235] Further, the cockpit **1902** may include visual access menu for controlling the plurality of remote devices **106***a-n* or services **202***a-n*. As shown in FIG. **20**A, the first user may connect and control the plurality of remote devices **106***a-n* through the network **104**. Examples of the remote devices include, but are not limited to, household devices including electric lights, water pump, generator, fans, television (TV), cameras, microwave, doors, windows, computer, or garage locks, security systems, air-conditioners (AC), lights, and so forth. In an embodiment of the invention, the plurality of the remote devices **106***a-n* can be vehicles such as cars, trucks, vans, and so forth. Once set up, the first user may access the cockpit **1902** at the first device **2002**. In an embodiment of the invention, the user may access the cockpit **1902** through a website or web browser. The user(s) may have to authenticate before accessing the cockpit. In an embodiment of the invention, the cockpit **1902** may be stored at a proxy server **2010**. Further, the proxy server **2010** may also store cockpits of other users. In an embodiment of the invention, the proxy server **2010** may maintain a record of the interaction of the users with the cockpits. Further, the proxy server **2010** may include a list of users and information about access control over various cockpits. In an embodiment of the invention, the access control permissions of the cockpit **1902** may be provided to the one or more second users by the proxy server **2010**. In an embodiment of the invention, the proxy server **2010** may send a message to the first user to ask for a permission regarding some changes in his/her cockpit **1902** by the one or more second users. Thereafter, the cockpit **1902** may be changed or updated based on the permission from the first user. Further, the proxy server **2010** may monitor the cockpit **1902** of the first user and see if there are unauthorized requests to control the cockpit **1902** or the remote devices **106***a-n*. In case there are unauthorized request, the proxy server **2010** may report to the owner of the cockpit **1902** such as the first user. In an embodiment of the invention, the proxy server **2010** may report about unauthorized access to a security designated entity. Thereafter, either the security designated entity or the first user may take an action to handle the unauthorized access. For example, the first user may block the users from which unauthorized access requests are received.

[0236] In an embodiment of the invention, the user may create or configure an Internet of Things menu including representations of one or more identifiable objects. The identifiable objects may be virtual or physical objects. The user may share the Internet of Things menu with other user such as friends or relatives.

[0237] In an embodiment of the invention, different users may request access to cockpit **1902** of other users. In an embodiment of the invention, the one or more second users may request to get control over first user's cockpit **1902**. For example, a wife may request her husband to get access on his cockpit. The one or more second users may get access of the cockpit **1902** of the first user based on the permission granted by the first user. In an exemplary scenario, the reverse control may allow the service provider to get more information and control of the cockpit of the users. The service provider can be a telecom service provider, a grocery provider, a movie rental service provider, an internet provider, and so forth.

[0238] FIG. **2**I illustrates a flow diagram for providing access control of the cockpit to one or more second users, in accordance with an embodiment of the invention. As illustrated in FIG. **20**A-B, the first user may configure or customize the cockpit **1902** at the first device **2002**. The first user may communicate with the one or more second users over the network **104** such as the Internet. The first device **2002** may connect to the second device **2006** through the network **104**.

[0239] At step **2102**, the first user may access a graphical user interface (GUI) for configuring the cockpit **1902** at the first device **2002**. At step **2104**, the user may configure the cockpit **1902** based on his/her one or more preferences. Examples of the preferences may include, but are not limited to, language selection, font size, and selection of remote devices, favorite services, pictures, icons, themes, and so forth. For example, the user may select a color and theme for his/her cockpit **1902**.

[0240] At step **2106**, the first user may share the cockpit **1902** with the one or more second users. For example, the first user such as John may share the cockpit **1902** of managing and controlling his home devices with his wife Marie or son Paul so that they may also control the home devices. Further, the user may provide limited or full control of the cockpit **1902** to the second users. Further, the control to the cockpit **1902** including different tabs representing objects such as remote devices may be provided to different second users. In an embodiment of the invention, the access to the cockpit **1902** may be provided on an event basis. For example, the first user may provide access to the second user for two days, or till Christmas. In an embodiment of the invention, the first user may provide an access to the cockpit **1902** based on time for example, such as for 4 hours, 3 hours, and so forth.

[0241] In an embodiment of the invention, the first user may receive one or more alert messages about the remote devices, services or other objects of the cockpit **1902**. In an embodiment of the invention, the VMThings **2004** may send these alert messages or control of the cockpit **1902** to the first user when he/she is available. In another embodiment of the invention, the VMThings **2004** may send the alert messages or control of the cockpit **1902** to the other second users when the first user is not available. Further, the user may set up a list of second users to whom the control of the cockpit **1902** may be passed in absence of the first user.

[0242] Further, the VMThings **2008** at the second device **2006** may translate language of the cockpit **1902** based on language preference of the second user, at step **2108**. In an embodiment of the invention, the VMThings **2008** may translate the cockpit **1902** of the first user based on the configuration of the second device **2006**. For example, the VMThings **2008** may translate the cockpit **1902** into Russian language if the second user understands Russian. Then at step **2110**, the cockpit **1902** or a menu of the cockpit **1902** may be displayed at the second device **2006**. In an embodiment of the invention, the cockpit **1902** may be downloaded at the second device **2006**. Thereafter, the second user may interact with the cockpit **1902**. Further, the VMThings **2008** may change the display of the second device **2006** to a menu of the shared cockpit **1902**. Further, the displayed visual access menu or the cockpit **1902** will be according to the second user's preference(s).

[0243] FIGS. **22**A and **22**B illustrate a flow diagram for providing access control of the cockpit to one or more second users, in accordance with another embodiment of the invention. As illustrated in FIG. **20**A-B, the first user may configure or customize the cockpit **1902** at the first device

2002. The first user may communicate with the one or more second users over the network **104** such as the Internet. The first device **2002** may connect to the second device **2006** through the network **104**.

[0244] At step **2202**, the first user may access a graphical user interface (GUI) for configuring the cockpit **1902** at the first device **2002**. The first device **2002** may be a mobile phone, a smart phone, a computer, a personal digital assistant (PDA), a tablet computer, a laptop, and so forth. At step **2204**, the user may configure the cockpit **1902** based on his/her one or more preferences. Examples of the one or more preferences may include, but are not limited to, language preference, font size, and preferred remote devices, favorite services, pictures, icons, themes, and so forth. For example, the user may select a font size for his/her cockpit **1902**.

[0245] At step **2206**, the first user may share the cockpit **1902** with the one or more second users. For example, the first user such as John may share the cockpit **1902** for managing and controlling his home devices with his wife Marie or son Paul so that they may also control the home devices. In an embodiment of the invention, the second users may also provide control of the cockpit **1902** to one or more third users after getting control of the cockpit **1902**. The one or more second users are the users associated with one or more second devices such as the second device **2006**. Further, the user may provide partial or full control of the cockpit **1902** to the second users. Further, the control to the cockpit **1902** including different objects or remote devices may be provided to the second users. Further, the access control of the objects may differ for different users. For example, first user may provide complete control i.e. viewing, controlling and modifying permission to his/her cockpit **1902** to a User A, and may give partial/limited control such as just viewing and controlling permission to a User B.

[0246] In an embodiment of the invention, the access to the cockpit **1902** may be provided on an event basis. For example, the first user may provide access to the second user for two days, or till Christmas. In an embodiment of the invention, the first user may provide an access to the cockpit **1902** based on time. For example, such as for 4 hours, 3 hours, till 5:30 PM, and so forth.

[0247] In an embodiment of the invention, the first user may receive one or more alert messages about the remote devices, services or other objects of the cockpit **1902**. In an embodiment of the invention, the VMThings **2004** may send these alert messages or control of the cockpit **1902** to the first user when he/she is available. In another embodiment of the invention, the VMThings **2004** may send the alert messages or control of the cockpit **1902** to the other second users when the first user is not available. Further, the user may set up a list of second users to whom the control of the cockpit **1902** may be passed in absence of the first user.

[0248] Further, at step **2208**, the VMThings **2008** at the second device **2006** may translate the cockpit **1902** based on language preference of the second user. For example, the VMThings **2008** may translate the cockpit **1902** into Russian language if the second user understands Russian or wants to view the cockpit **1902** in Russian. In an embodiment of the invention, the VMThings **2008** may translate language of the cockpit **1902** of the first user based on the configuration of the second device **2006**. For example, the VMThings **2008** may translate the cockpit **1902** which is in English language into a Russian language cockpit if the second user understands or wants to view the cockpit in Russian language. Then at step **2210**, the cockpit **1902** or a menu of the cockpit **1902** may be displayed at the second device **2006**. Further, the VMThings **2008** may change the display of the second device **2006** to a visual menu of the shared cockpit **1902**. Further, the displayed menu will be according to the second user's preference.

[0249] Thereafter, at step **2212** the one or more second users may interact with the cockpit **1902** at their respective one or more second devices. The second user(s) may view and control the one or more objects in the cockpit **1902** from the second device **2006** itself. For example, the second user may use his/her smart phone to switch off the microwave associated with a home of the first user. Further, the first user may receive notifications regarding events at the first device **2002**. The events may be such as, but not limited to, switch on, switch off, theft, and so forth. In an embodiment of the invention, the first user may receive notifications about changes done by the one or more second user to his/her cockpit **1902**. Further, messages asking to approve these changes by the second users may be received by the first user at the first device **2002**.

[0250] Further, the proxy server **2010** may maintain a record of interactions with the cockpit **1902** by different users. Further, the proxy server **2010** may have some level of control related to the sharing of the cockpit **1902** with other users. In an embodiment of the invention, the first user may provide some instructions to the proxy server **2010** regarding sharing of the cockpit. The proxy server **2010** may know to whom to send the request and when to send the request if it does not work for any reason. Further, the proxy server **2010** may maintain records related to managing ownership of the control of the cockpit **1902**. The proxy server **2010** may also decide to whom to give control and how much control of the cockpit **1902** of the first user. In an embodiment of the invention, the proxy server **2010** may decide about giving control to other users based on predefined settings received from the first user (or the users). Further, the proxy server **2010** may save the access pattern of the first user or the one or more second users. Further, the proxy server **2010** may also store profile information such as name, age, and profession etc. of the users. Furthermore, the proxy server **2010** may provide control to the second users based on one or more parameters such as, but are not limited to, time, event, availability of a user at the device and so forth. Further, the proxy server **2010** may maintain a record of all the changes done to the cockpit **1902** by the one or more second users. In an embodiment of the invention, the first user may roll back all the changes done by the other second users based on the record of the changes maintained at the proxy server **2010**.

[0251] In an embodiment of the invention, different users may request access to cockpit of other users. In an exemplary scenario, the one or more second users may request to get control over first user's cockpit **1902**. For example, a daughter may request her mom to get access on her cockpit **1902**. Therefore, the one or more second users may get access of the cockpit **1902** of the first user based on the permission granted by the first user. The request for sharing the cockpit may be received by the users in form of SMS, MMS, instant message, e-mails, and so forth at their respective devices. The first user may provide complete access or limited access to the one or more users. In an exemplary scenario, the reverse control may allow the service provider

to get more information and control of the cockpit **1902** of users. Further, the proxy server **2010** may monitor the cockpit **1902** of the first user and see if there are unauthorized requests to control the cockpit **1902**. In case there are unauthorized request, the proxy server **2010** may report to the owner of the cockpit **1902** such as the first user. In an embodiment of the invention, the proxy server **2010** may report about unauthorized access to a security designated entity. In an embodiment of the invention, the proxy server **2010** may itself handle the unauthorized access requests.

[0252] At step **2214**, the interactions with the cockpit **1902** of the first user may be stored at the proxy server **2010**. The proxy server **2010** may store the interactions in form of list, records, text, audio, video and so forth. At **2216**, the proxy server **2010** may send a message to the first user to ask for a permission regarding some changes in his/her cockpit **1902** by the one or more second users. Thereafter, at step **2218**, the cockpit **1902** may be changed or modified or updated based on the permission received from the first user.

[0253] FIG. **23** illustrates a flow diagram for customizing a cockpit based on user's preference, in accordance with an embodiment of the invention. A user may create or configure a cockpit such as the cockpit **1902** as shown in FIG. **19**. The cockpit **1902** may include a plurality of tabs or icons **1904***a-n* representing different types of objects. The cockpit **1902** may be device specific or user specific. The VMThings **108** may present a GUI for configuring the cockpit **1902** to a user at the device **102**.

[0254] At step **2302**, the user may access a database of visual access menus through a GUI for customizing a cockpit including multiple visual access menus corresponding to multiple objects at the device **102**. The visual access menus may be visual menus for accessing one or more objects such as, but are not limited to, services **202***a-n*, remote devices **106***a-n*, and so forth. The user may provide one or more inputs at the device **102**. At step **2304**, the VMThings **108** may search the database for a cockpit or one or more visual access menus based on the one or more inputs received from the user. The user may provide inputs at the device by at least one of pressing one or more keys at the device **102**, giving a voice command, through gestures, hand movement, touching the screen of the device **102**, and so forth. In an embodiment of the invention, the VMThings **108** may retrieve a cockpit or visual access menu matching the inputs from a server. In another embodiment of the invention, the VMThings **108** may display a message telling that cockpit or the visual access menu is not available at the device **102**.

[0255] At step **2306**, the VMThings **108** may customize the cockpit visual access menu according to user's preference. In an embodiment of the invention, the VMThings **108** may customize one or more visual access menus or objects of the cockpit according to user's preference. For example, the user maybe interested in controlling remote devices such as car, garage, home doors, fans, and lights of his/her house only. So, the user may be displayed with a visual access menu corresponding to his/her preferred remote devices of the remote devices **106***a-n*. Through this visual access menu the user may access and control one or more operations of the personal remote devices. Similarly, the user may define his/her preferences for accessing the remote devices present at his/her office or factory, and so forth. Therefore, multiple visual access menus may be stored at the devices based on the preferences of the user. Examples of the preferences may include, but are not limited to, language preference, font size, and selection of remote devices, favorite services, pictures, icons, themes, and so forth. For example, the user may select a color and theme for his/her cockpit to be displayed at the device **102**. In an embodiment of the invention, the user may be displayed with a different visual access menu when the user accesses the visual access menu from different devices. For example, when the user is accessing a visual access menu to control services from his/her laptop, he may see a first visual access menu and when the same user accesses the visual access menu from his/her smart phone he may be presented with a second visual access menu. The purpose or functionality of the first visual access menu may be same as of the second visual access menu. For example, the first and the second visual access menu may be the visual menus for controlling one or more cars of the user.

[0256] Thereafter, at step **2308**, a customized cockpit or the one or more visual access menus may be displayed at the device **102**. In an embodiment of the invention, the visual access menu may be customized based on the user preferences received in real time. In another embodiment of the invention, the visual access menu may be customized based on predefined user preferences. In an embodiment of the invention, the customized visual access menu may be stored at the device **102** or at a server in a cloud network.

[0257] In an embodiment of the invention, a standard cockpit or visual access menu may be displayed to the user. The standard cockpit may be an interface which is not customized according to the user preferences. The standard visual access menu may be a standard menu which may be displayed without any customization specific to the user.

[0258] FIG. **24** illustrates a flow diagram for configuring a cockpit, in accordance with an embodiment of the invention. As discussed with reference to FIG. **1**A, a user may access or control the remote devices **106***a-n* or services **202***a-n* by using the device **102**. The device **102** may include the VMThings **108** for displaying graphical information at the device **102**. The user may create a cockpit by using a GUI at the device **102**. At step **2402**, the user may access a database of visual access menus through a GUI for creating a cockpit such as the cockpit **1902** as shown in FIG. **19**. For example, the user may access a database of visual access menu at his/her smart phone. In an embodiment of the invention, the database may be present at the device **102**. In another embodiment of the invention, the database may be present on a server in a cloud network.

[0259] At step **2404**, the VMThings **108** may display one or more configuration settings options for creating the cockpit to the user at the device **102**. The user may choose or select one or more configuration setting options. In an embodiment of the invention, the user may provide inputs regarding the configuration settings. At step **2406**, a selection of the one or more configuration setting options may be received at the device **102**. In an embodiment of the invention, the VMThings **108** may detect and receive the selection of the configuration options from the user at the device **102**. At step **2408**, a cockpit may be created based on the selection received from the user. In an embodiment of the invention, the VMThings **108** may create the cockpit based on the selection of the configuration options. The cockpit created may be a customized cockpit specific to the user. The customized cockpit may be stored at the device **102**. Thereafter, at step **2410**, the cockpit may be displayed at the

device **102**. In an embodiment of the invention, the cockpit may be displayed at a display device such as the display device **118** connected to the device **102**.

[0260] FIG. **25** illustrates a flow diagram for customizing a cockpit based on other users' reviews, in accordance with an embodiment of the invention. As discussed with reference to FIG. **19**, the user may access different objects through the cockpit **1902**. Further, the user may create or configure or set up or customize a cockpit specific to the user.

[0261] At step **2502**, a user may access a database including a plurality of visual access menus through a GUI for creating a cockpit at a device such as the device **102**. The visual access menus are the visual menus for accessing or controlling multiple objects such as remote devices **106***a-n* or services **202***a-n*. In an embodiment of the invention, the database may be present at a server in the network **104**. In another embodiment of the invention, the database of visual access menus may present at the device **102**.

[0262] At step **2504**, one or more configuration options for configuring/creating or customizing the cockpit may be displayed to the user. In an embodiment of the invention, the VMThings **108** may display the one or more configurations options to the user. The user may select or choose these one or more configuration options to change or modify a standard cockpit. At step **2506**, the user may create or configure the cockpit based on a selection of the one or more configuration options received from the user.

[0263] The user may allow other users to view or check or access the cockpit and rate it and provide reviews or feedback about the cockpit. At step **2508**, the user may receive ratings/reviews/feedback for the cockpit from the other users in the network **104**. The other users may also suggest some changes like addition or deletion in the cockpit to the user. At step **2510**, the cockpit may be customized at the device **102** based on the ratings or reviews or feedback received from the other users. In an embodiment of the invention, the VMThings **108** may modify the cockpit based on the reviews or ratings or feedback automatically at the device **102**. In another embodiment of the invention, the user may accept or reject reviews or feedback and then he/she may modify the cockpit manually or with the help of the VMThings **108** application at the device **102**.

[0264] Further, the modified cockpit may be stored in the database. Thereafter, at step **2512**, the customized or modified cockpit may be displayed at the device **102**. In an embodiment of the invention, the modified cockpit may be displayed at the display device **118** such as a projector screen, a TV, a large screen and so forth. In an embodiment of the invention, the user may not customize the cockpit based on the other users' reviews or feedback.

[0265] FIG. **26** illustrates a flow diagram for downloading and customizing a cockpit at a second device, in accordance with an embodiment of the invention. The user may share the cockpit with other users. The cockpit may be modified by the other users based on the access control permissions from the user. Further, the user may configure or customize his/her cockpit with the help of other users in his/her social network. The social network may be created by the user by using a social networking website. Examples of the social networking websites include, but are not limited to, Facebook, Google+, Orkut, Twitter, Academia.edu, Athlinks, Bebo, Badoo, BIGADDA, BlackPlanet, Buzznet, Cloob, Faceparty, Flixter, Fubar, Google Buzz, Hi5, ibibo, MySpace, LinkedIn, MyLife, Ning, WAYN, and so forth. For example, the user may share or invite other users to help him in creating his/her cockpit in real time.

[0266] At step **2602**, a first cockpit may be configured or created by accessing a GUI for creating the cockpit at a first device. A first user may create the first cockpit at the first device. Then at step **2604**, the first cockpit may be shared with one or more second users and downloaded at their respecting one or more second devices. Examples of the first device and the second devices may include, but are not limited to, a mobile phone, a smart phone, a computer, a laptop, an I-pod, an I-pad, a tablet computer, a home controller, a set top box, an android device, an android set top box, and so forth. The cockpit may be downloaded at the system through at least one of an SMS, an MMS, File transfer protocol (FTP), an E-mail, through wireless technologies like Bluetooth, ZigBee, RF4CE, Wi-Fi, WiMAX, and so forth.

[0267] At step **2606**, the one or more second users may modify or customize a second cockpit at the one or more second devices based on the downloaded first cockpit. The second cockpit is associated with at least one of the one or more second users. At step **2608**, ratings or reviews or feedback may be received on the customized second cockpit of the second user from the other users (or one or more third users) in his/her social network. For example, a second user may receive ratings on the second cockpit from his/her friends or relatives in the social network such as on Facebook, Twitter, Orkut, Ning, MySpace, ibibo, and so forth.

[0268] At step **2610**, one or more configuration settings of the second cockpit are downloaded at the first device based on the reviews or ratings of the other user i.e. the one or more third users. At step **2612**, the first cockpit may be customized based on the downloaded configuration settings and reviews. Thereafter, at step **2614**, the customized first cockpit may be displayed at the first device. In an embodiment of the invention, the customized first cockpit may be stored in the database.

[0269] FIG. **27** illustrates a flow diagram for configuring a cockpit based on another cockpit of other user, in accordance with an embodiment of the invention. As discussed with reference to FIG. **1**A, every user in the network **104** may access visual access menus at their respective devices. Subsequently through these visual access menus, the user may control the one or more functions or operations of the one or more objects such as the remote devices **106***a-n*. As discussed with reference to FIGS. **19** and **20**, the user may configure a cockpit such as the cockpit **19** according to his/her preferences. As discussed with reference to FIG. **26**, the user may configure or customize his/her cockpit with the help of other users in his/her social network. The social network may be created by the user by using a social networking website. Examples of the social networking websites include, but are not limited to, Facebook, Google+, Orkut, Twitter, Academia.edu, Athlinks, Bebo, Badoo, BIGADDA, BlackPlanet, Buzznet, Cloob, Faceparty, Flixter, Fubar, Google Buzz, Hi5, ibibo, MySpace, LinkedIn, MyLife, Ning, WAYN, and so forth. For example, the user may share or invite other users to help him in creating his/her cockpit in real time.

[0270] At step **2702**, at least one second cockpit associated with one or more second users is selected from a database. The database may be at a first device or at a second device or at a server in the network **104**. Each user in the network

104 may have an associated profile stored at the database. The profile of a user may include information such as but not limited to, name, age, Identity (ID), interests, favorite books, and so forth about the user. Further, the at least one second cockpit is associated with a second user whose profile is similar to a profile of a first user. In an embodiment of the invention, the VMThings **108** may search and select the at least one cockpit from the database. In an embodiment of the invention, the user may select the second cockpit of the one or more second users.

[0271] At step **2704**, the second cockpit may be analyzed by the VMThings **108**. In an embodiment of the invention, the analysis may happen at the first device. In another embodiment of the invention, the analysis may happen at the server in the network **104** or a network device in a cloud network. At step **2706**, a first cockpit specific to the first user may be created or configured based on the analysis of the second cockpit of the one or more second users. In an embodiment of the invention, the VMThings **108** may create the first cockpit based on the second cockpit. In another embodiment of the invention, the user may provide inputs for configuring the cockpit based on the analysis of the second cockpit. Further, the user may invite other users may be his friends, relatives, colleagues, and so forth to configure the cockpit for the user. The first cockpit may be stored at the first device. In an embodiment of the invention, the first cockpit may be stored at the server or the network device. Thereafter, at step **2708**, the first cockpit may be displayed at the first device to the user. In an embodiment of the invention, the first cockpit may be displayed at a display device connected to the first device. The display device may be connected to the first device through wireless or wired means.

[0272] FIG. **28** illustrates a flow diagram for configuring a cockpit based on another cockpit of other user, in accordance with another embodiment of the invention. At step **2802**, the user may access a graphical user interface (GUI) for configuring or creating a cockpit at a first device. At step **2804**, the first user may provide information or profile of at least one second user. The profile may include information such as a name, age, devices, services, and so forth. Then at step **2806**, the VMThings **108** may search for a second cockpit of the second user and download at the first device. At **2808**, the VMThings **108** may customize or configure a first cockpit for the first user based on the second cockpit of the at least one second user. In an embodiment of the invention, the Further at step **2810**, the VMThings **108** may store the first cockpit at the first device. In an embodiment of the invention, the first cockpit may be stored at a server in the network **104**. Further, the user may translate the first cockpit from one language to another. The user may change or select a new font size, theme, color etc. for the first cockpit. Thereafter, at step **2812**, the first cockpit may be displayed to the user at the first device. In an embodiment of the invention, the first cockpit may be displayed at a display device attached or connected to the first device. Thereafter, the user may interact and access the one or more objects of the first cockpit accordingly.

[0273] FIG. **29** illustrates a flowchart for downloading a cockpit from a network, in accordance with an embodiment of the invention. In an embodiment of the invention, the user may download the cockpit or one or more configuration settings for setting his/her cockpit at a device. At step **2902**, a graphical user interface (GUI) for creating or configuring or copying a cockpit at a device may be accessed by a user. In an embodiment of the invention, the user may configure his/her cockpit based on the cockpit of other users in the network **104**. At step **2904**, the user may select and download a cockpit having good reviews and ratings from the other users from the network **104** such as the Internet. The cockpit may be present in a cloud network. In an embodiment of the invention, the user may customize the downloaded cockpit according to his/her preference and device compatibility. At step **2906**, the cockpit may be customized or translated according to a language preference of the user. In an embodiment of the invention, the cockpit may be translated or customized by the VMThings **108** based on predefined preferences of the user. For example, the cockpit language may be changed from English to Spanish. In an embodiment of the invention, the user may not customize the downloaded cockpit. At step **2908**, the customized cockpit may be stored at the device. In an embodiment of the invention, customized cockpit may be stored at a server or in cloud network. At step **2910**, the customized cockpit may be displayed at the device or at a display device attached to the device.

[0274] FIG. **30** illustrates an environment for accessing a cockpit through a website, in accordance with an embodiment of the invention. As discussed with reference to FIG. **19**, the cockpit **1902** may include multiple tabs or icons **1902***a-n* for connecting to and controlling multiple objects **3006***a-n*. The objects may be such as but not limited to, remote devices, services, applications, and so forth. A user may use a device **3002** to access a cockpit or visual access menus through a website in a network **3004**. Examples of the device **3002** may include, but are not limited to, smart phone, PDA, a mobile phone, a computer, a laptop, a tablet computer, an I-POD, and so forth.

[0275] The network **3004** can be a wired network or a wireless network or a combination of these. The wireless network may use wireless technologies to provide connectivity among various devices. Examples of the wireless technologies include, but are not limited to, Wi-Fi, WiMAX, fixed wireless data, ZigBee, Radio Frequency **4** for Consumer Electronics network (RF4CE), Home RF, IEEE 802.11, 4G or Long Term Evolution (LTE), Bluetooth, Infrared, spread-spectrum, Near Field Communication (NFC), Global Systems for Mobile communication (GSM), Digital-Advanced Mobile Phone Service (D-AMPS). The device **102** is connected to the plurality of remote devices **106***a-n* through the network **104**. Examples of the wired network include, but are not limited to, Local Area Network (LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), and so forth. In an embodiment of the invention, the network **104** is the Internet. In an embodiment of the invention, the one or more objects may connect to the network **3004** through a network device such as, but not limited to, a router, a bridge, a switch, a gateway, a home communication device, and so forth. In an embodiment of the invention, the objects **3006***a-n* may connect to the network **3004** indirectly through a local network.

[0276] The device **3002** may include a web browser for opening a web site. Examples of the web browser include, but are not limited to, Internet Explorer, Google Chrome, Mozilla Firefox, Netscape Navigator, and so forth. The user can enter a Uniform Resource Locator (URL) such as, 'www.XYZ.com' in the web browser to access the website. Further, when the user enters a URL in the web browser, a

web page **3008** may be displayed at the device **3002** based on the URL. The web page **3008** may include one or more data request fields **3010***a-n*. In an embodiment of the invention, the user may have to authenticate his identity to the website before accessing the cockpits. The user may enter his/her details in the one or more data request fields **3010***a-n* for authentication. In an exemplary scenario, the web page **3008** may include a username data request field **3010***a*, and a password data request field **3010***b*.

[0277] The network **3004** may include a cockpit database **3012** or server for storing a plurality of cockpits associated with a plurality of users or devices. Further, the cockpit database **3012** may include a plurality of visual access menus for controlling one or more objects. The cockpit database **3012** may also maintain a list of users, devices, remote devices, services and so forth. In an embodiment of the invention, the network **3004** may include an IVR application such as VMThings **3014**. The VMThings **3014** may display graphical information to the user at the device **3002**. In an embodiment of the invention, the graphical information or visual access menu may be displayed at a display device such as, but not limited to, a television, an LCD screen, an LED screen, a computer, a projector screen, a picture frame, and so forth. In an embodiment of the invention, the user may configure a cockpit at the device **3002** by accessing a graphical user interface (GUI) for configuring the cockpit through the website. The user may log in to the website by providing one or more details. Thereafter, the user may access or configure or customize the cockpit. The user may customize the cockpit by providing one or more user preferences such as font size, theme, color, and so forth.

[0278] FIG. **31** illustrates a flow diagram for configuring a cockpit through a website, in accordance with an embodiment of the invention. As discussed with reference to FIG. **30**, the user may open a website by entering its network address or URL in a web browser such as Internet Explorer, Google Chrome, etc. At step **3102**, the user may open a website through a web browser at a device. The user may enter a URL associated with the website to open a webpage. In an embodiment of the invention, the website may include a plurality of webpage. In an embodiment of the invention, a third party may maintain the website for configuring the cockpit. In an embodiment of the invention, the website may be a website for configuring or creating or setting up a cockpit. Based on the URL a web page such as the web page **3008** may be displayed at the device **3002**. The web page **3008** may include one or more data request fields **3010***a-n*.

[0279] In an embodiment of the invention, the website may ask the user to enter his/her personal details for authorization. At step **3104**, the user may enter one or more personal details in the data request fields **3010***a-n* to authenticate at the website. The user may be allowed to access web site based on the authorization. The user can access a GUI for configuring the cockpit after authorization. At step **3106**, VMthings **3014** may display one or more configuration options to the user. The user may select or choose the one or more configuration options to configure the cockpit. At step **3108**, the VMthings **3014** may receive selection of the one or more configuration options from the user. The user may select the options by touching the screen of the device. In an embodiment of the invention, the user may select the options through at least one of entering a combination of keys, giving a voice command, gestures, hand movements, and so forth.

[0280] At step **3110**, the VMthings **3014** may configure or create the cockpit for the user based on the selection of the configuration options. In an embodiment of the invention, the cockpit may be customized based on the one or more configuration options. In an embodiment of the invention, the user may create a plurality of cockpits based on his/her preferences. For example, the user may create a cockpit for handling home appliances, a second cockpit for handling or controlling office objects and so forth. Thereafter, at step **3112**, the cockpit may be displayed to the user. The VMThings **3014** may display the cockpit at the device **3002**. In an embodiment of the invention, the VMThings **3014** may display the cockpit at a display device attached to the device **3002**. The cockpit is then stored at the cockpit database **3012**. The user may interact or control one or more objects through the cockpit.

[0281] FIG. **32** illustrates a flow diagram for accessing a cockpit through a website, in accordance with an embodiment of the invention. As discussed with reference to FIG. **30**, the user may access the cockpit through a website. At step **3202**, the user may open a website through a web browser at the device **3002**. A web page **3008** based on the URL of the website may be displayed at the device **3002**. The webpage **3008** may include one or more data request fields **3010** *a-n*. The user may enter his/her details in the data request fields **3010** *a-n*. A website server may check whether the user is an authorized user or not based on the entered details, at step **3204**. Thereafter, the VMThings **3014** may search the cockpit database **3012** for a cockpit associated with the user. In an embodiment of the invention, the cockpit may be present in a cloud network.

[0282] Then at step **3206**, the VMThings **3014** may display the cockpit specific to the user at the device **3002**. In an embodiment of the invention, the cockpit may be displayed at a display device. Further, different cockpits may be displayed to different users based on their details. In another embodiment of the invention, a standard cockpit may be displayed to the user. The standard cockpit may be a cockpit including one or more objects without any specific changes according to different users. In an embodiment of the invention, the VMThings **3014** may display the cockpit at the device **3002** based on current location of the user or the device **3002**. The icons in the cockpit may differ depending on the location of the device **3002** or the user. For example, the user may be displayed with a first cockpit when the user is at home and may be displayed with a second cockpit when the user is travelling. In an embodiment of the invention, the location of the user may be determined by using a GPS system at the device **3001** or in the network **3004**. In an embodiment of the invention, the location of the objects being controlled may change. For example, car, pet, wife, kids may change their location. Therefore, VMThings **3014** may display different cockpit or visual menus to the user based on the location of the controlled objects.

[0283] Subsequently, the user can interact with the cockpit at step **3208**. The user may select a tab from a plurality of tabs or icons of the cockpit for interacting with the objects. At step **3210**, the user may be displayed with an enhanced visual access menu based on the selection or interaction of the user with the cockpit. As discussed with reference to FIG. **1**A to FIG. **2**I, the enhanced visual access menu may

include one or more device options or the service options. The device options may be the icons representing one or more remote devices **106***a-n*. Similarly, the service options may be the icons or graphics representing one or more services **202***a-n*. In an embodiment of the invention, the cockpit may be displayed based on one or more preferences of the user such as color preference, font size, theme, language preference, and so forth. In an embodiment of the invention, the user may provide the preferences in real time. In an embodiment of the invention, the user preferences are pre-defined and may be stored at the cockpit database **3012** or the device **3002**. At step **3212**, the user may interact and control one or more operations of the objects such as remote devices.

[0284] FIG. **33** illustrates a flow diagram for configuring a cockpit with the help of other users, in accordance with an embodiment of the invention. As discussed with reference to FIG. **30**, a user may access a website for creating or configuring or customizing a cockpit through a web browser such as Internet Explorer, Google Chrome, and so forth. The website may include a plurality of web pages. Each of the web page may display text, images, data request fields, and so forth. In an embodiment of the invention, the web page may include audio files or video files.

[0285] In an embodiment of the invention, the user may configure an Internet of Things menu by accessing a website. The user may login to the website and then may get access to various setting controls for configuring the Internet of Things menu based on the authorization. In an embodiment of the invention, the Internet of Things application i.e. the VMThings may create the Internet of Things menu for different users at the device. Further, the user may share the Internet of Things menu with other users. In an embodiment of the invention, the Internet of Things menu may include one or more options for identifiable objects. Further, the Internet of Things menu may be created by inviting other users.

[0286] At step **3302**, a first user may access a website for creating or configuring or setting up a cockpit at a first device such as a first device **2002** of FIG. **20**A-B. The first device may be a smart phone. At step **3304**, the user may invite one or more second users for configuring the cockpit for the first user. The first user may invite the one or more second users through at least one of an SMS, an MMS, an instant message, an e-mail, through face to face conversation, or phone, and so forth.

[0287] At step **3306**, one or more inputs may be received from the one or more second users. Further, the one or more second users may provide the one or more inputs at their respective second devices. In an embodiment of the invention the VMThings **3014** in the network **3004** may receive the one or more inputs from the one or more second users. At step **3308**, one or more inputs may be received from the first user. Further, the first user may provide the one or more inputs at the first device. In an embodiment of the invention, the VMThings **3014** may receive the inputs from the first user. Further, the first user and the second user may provide the inputs by at least one of, touching screen of their devices, pressing one or more keys at the devices, giving voice commands, gestures, hand movements, and so forth.

[0288] At step **3310**, the VMThings **3014** may configure a cockpit for the first user based on the one or more inputs from the first user and the one or more second users. In an embodiment of the invention, the VMThings **3014** may customize an already configured cockpit of the first user based on the one or more inputs from the first user and the one or more second users. Finally, at step **3312**, the cockpit may be stored at the first device. In an embodiment of the invention, the cockpit may be stored at a server of the website or at the cockpit database **3012** in the network **3004**. In an embodiment of the invention, the first user may provide access to the cockpit to the one or more second users.

[0289] FIG. **34** illustrates a flow diagram for switching a display mode of a cockpit, in accordance with an embodiment of the invention. In an embodiment of the invention, the cockpit or the visual access menus may be displayed to the user based on the user's one or more preferences. Further, the cockpit (or visual access menus) may be displayed to the user based on the display capabilities of the device. For example, the cockpit may be displayed as a list when the device is a simple mobile phone and has a small display. In an embodiment of the invention, the cockpit may be played to the user depending on the user's preference.

[0290] At step **3402**, a user may access a database of visual access menus or cockpit through a graphical user interface (GUI) at a device. The GUI may provide an interface for creating or configuring or customizing or accessing a cockpit. As discussed with reference to FIG. **30**, the cockpit database **3012** may include a plurality of cockpits or visual access menus for different users and devices. Examples of the device may include, but are not limited to, a mobile phone, a smart phone, a laptop, an I-pod, a tablet computer, a PDA, an electronics device, and so forth. The user may receive alerts or messages from the one or more objects connected through the cockpit or the visual access menus. At step **3404**, a cockpit along with one or more mode options may be displayed to the user. Examples of the mode options may include, but are not limited to, video, audio, visual, text, list, and so forth. In an embodiment of the invention, the one or more mode options may be displayed at the GUI for creating/accessing cockpit.

[0291] The user may select at least one mode option from the one or more mode options. A selection of the video mode option may play the cockpit as a video. A selection of the audio mode option may play the cockpit options as audio or music. A selection of the text mode option may display the cockpit options as text. Similarly, a selection of the list mode option may display the cockpit options as a list. At step **3406**, a selection of the at least one mode options may be received from the user at the device. In an embodiment of the invention, the VMThings at the device may receive the selection of the mode option.

[0292] Based on the selection of the mode option, the mode of the display of the device may be switched at step **3408**. For example, the user may select the audio option, so the display may switch to audio mode and various options of the cockpit or the visual access menus may be played to the user. Subsequently, at step **3410**, an audio menu may be played at the device when the user selects the audio mode. Thereafter, the user may listen to the options and may interact by providing one or more inputs. The one or more inputs may be provided through at least one of gestures, hand movements, voice commands, pressing one or more keys at the device, touching the display, and so forth. For example, when a user is driving, and wants to access the

cockpit, he may choose the audio mode option. Therefore, the options may be played to the user and he/she can interact with the cockpit accordingly.

[0293] FIG. **35**A illustrates an exemplary display of cockpit along with one or more mode options, in accordance with an embodiment of the invention. As discussed with reference to FIG. **19**, a user may create or configure a cockpit such as the cockpit **1902** at the device **102**. The cockpit **1902** is an interface which enables a user to access various services, devices or objects. The cockpit **1902** may include icons **1904***a-n* representing various objects which a user or users can access or control. The tabs **1904***a-n* may be icons or text or combination of these.

[0294] As discussed with reference to FIG. **34**, the VMThings **108** may display the cockpit along with one or more mode options at the device **102**. Examples of the mode options may include, but are not limited to, video, audio, visual, text, list, and so forth. In an embodiment of the invention, the one or more mode options may be displayed at a GUI **3506** for creating/accessing cockpit as shown in FIG. **35**B. The user may select at least one mode option from the one or more mode options. A selection of the video mode option may play the cockpit as a video. A selection of the audio mode option may play the cockpit options as audio or music. A selection of the text mode option may display the cockpit options as text. Similarly, a selection of the list mode option may display the cockpit options as a list. A display of the device **102** may change based on the selection of the mode options by the user. For example, if the user selects an audio mode option, an audio menu may be played at the device **102**. Thereafter, the user may listen to the options and may interact by providing one or more inputs.

[0295] As shown in FIG. **35**, the exemplary GUI **3506** may include one or more icons/tabs/options **3504***a-n*. A GUI option **3504***a* may be a Create Cockpit option. A user may select this option for creating or configuring or setting up a cockpit. A GUI option **3504***b* may be a Customize Cockpit option. The user may use this option to customize an already created or stored cockpit. In an embodiment of the invention, the cockpit may be stored at the device **102**. In an embodiment of the invention, the cockpits are maintained by the cockpit database **3012** as shown in FIG. **30**. A GUI option **3504***c* may be a View Cockpit option. The user may select this option to view the cockpits at the device **102**.

[0296] In another embodiment of the invention, a server may provide functionality of the VMThings. Further, the server may maintain all the information which is otherwise was provided by the VMThings. The server may maintain the information regarding the one or more visual access menus, users, devices, remote devices, services, display device, access device, and so forth. A user at the device such as a telephone may request information from the server. Further, the server may send the information to the requesting device over a network. The network may be a wired or a wireless network. The connection between the device and the server may be a wired or a wireless connection. Further, the server may send the information to the requesting device(s) by using technologies such as, but are not limited to, SMS, MMS, e-mail, and so forth. Based on the received information, the content may be displayed at the device. For example, if the user has requested the information regarding controlling remote devices, then information of visual access menu related to remote devices may be received from the server. Further, the server may display the visual access menu at the device. In an embodiment of the invention, the server may also provide other functions or features of the VMThings **108** as explained in the FIGS. **1**A-**2**G. The user may respond or select an option from the displayed visual access menus through DTMF tones. The device may be a telephone or a simple mobile phone.

[0297] In an embodiment of the invention, the user may access the functionalities as described above by logging into a second device such as a home controller. The user may see and control devices associated with the home controller.

[0298] Further, the VMThings may store the user activity such as selection of options from the visual access menus at the device. This user activity information may be used by the VMThings for displaying the visual access menu to the same user next time.

[0299] An aspect of the invention allows the user to share his/her cockpit of controlling one or more objects with other users.

[0300] Another aspect of the invention allows the users to request permission to access or control the one or more objects of the cockpit from the other users.

[0301] Another aspect of the invention provides a cockpit including multiple interfaces for controlling multiple objects by a user.

[0302] An aspect of the invention enables a user to configure or set up a cockpit with the help of other users in his/her social network. Therefore, the user may invite his/her friends or other users to set up his cockpit.

[0303] Further aspect of the invention allows a user to copy other user's cockpit. Thereafter, the user may configure his/her cockpit based on the copied cockpit.

[0304] Another aspect of the invention allows a user to download a cockpit from a cloud network or the Internet.

[0305] Yet another aspect of the invention is to enable a user to control one or more operations of the remote devices or services through voice commands or gestures or hand movements. For example, the user may switch on an air conditioner (AC) by showing a thumb up gesture in front of the device. The device may include a camera to detect the gesture. The VMThings at the device (or access device) may analyze the gesture and control a remote device based on the analysis.

[0306] An advantage of the invention relates to visual access menus that may ask for voice commands. This GUI is for some user harder to use due to accent or other problems. The database could be provided with the option as been described before for the system to output voice command according to user selection of the options or the device options or the service options. The device may include a microphone for detecting the voice commands. VMThings may analyze the voice commands and may take the actions accordingly. Further, the disclosed system and methods allow the user to give voice commands in different languages. For example, the user may select an option by giving a voice command in French language. Furthermore, the user may select an option (or device options or service options) from the visual access menu through one or more gestures or hand movements. In an embodiment of the invention, the user may store one or more gestures for one or more actions. For example, the user may use a thumb up gesture to switch on the AC. Similarly the user may store a thumb down gesture to switch off an electronic appliance such as microwave.

[0307] Another advantage of the invention relates to providing visual access menus and enhanced visual access menus in different language(s). In an embodiment of the invention, the VMThings of device or the access device may display visual access menu or enhanced visual access menu in different languages. Further, the device may have one language and the user may want to control and communicate in a different language. Similarly, the VMThings may understand and accept voice inputs from the user in different languages irrespective of the device language. Therefore, the user may control the remote devices by giving voice commands in different languages such as, but are not limited to, English, Spanish, French, Hindi, Chinese language, Japanese language, Hawaiian, German language, and so forth. In an embodiment of the invention, the device may not support or understand a particular language such as Spanish, but still the VMThings can display the visual access menus in Spanish language.

[0308] Another aspect of the invention is to provide information about various services to the user using a device such as a smart phone anytime anywhere.

[0309] Further aspect of the invention is to enable a user to control operations of the remote devices through a device including VMThings application. The user may not have to be physically present near the remote devices to control them.

[0310] Yet another aspect of the invention is to allow users to see the images of remote devices in real-time irrespective of the location of the remote devices. For example, the user may see the remote devices such as home appliances present at his/her home by being present at the office.

[0311] Embodiments of the invention are described above with reference to block diagrams and schematic illustrations of methods and systems according to embodiments of the invention. It will be understood that each block of the diagrams and combinations of blocks in the diagrams can be implemented by computer program instructions. These computer program instructions may be loaded onto one or more general purpose computers, special purpose computers, or other programmable data processing translator to produce machines, such that the instructions which execute on the computers or other programmable data processing translator create means for implementing the functions specified in the block or blocks. Such computer program instructions may also be stored in a computer-readable memory that can direct a computer or other programmable data processing apparatus to function in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture including instruction means that implement the function specified in the block or blocks.

[0312] While the invention has been described in connection with what is presently considered to be the most practical and various embodiments, it is to be understood that the invention is not to be limited to the disclosed embodiments, but on the contrary, is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims. The invention has been described in the general context of computing devices, phone and computer-executable instructions, such as program modules, being executed by a computer. Generally, program modules include routines, programs, characters, components, data structures, etc., that perform particular tasks or implement particular abstract data types. A person skilled in the art will appreciate that the invention may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer electronics, network PCs, minicomputers, mainframe computers, and the like. Further, the invention may also be practiced in distributed computing worlds where tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing world, program modules may be located in both local and remote memory storage devices.

[0313] This written description uses examples to disclose the invention, including the best mode, and also to enable any person skilled in the art to practice the invention, including making and using any devices or systems and performing any incorporated methods. The patentable scope the invention is defined in the claims, and may include other examples that occur to those skilled in the art. Such other examples are intended to be within the scope of the claims if they have structural elements that do not differ from the literal language of the claims, or if they include equivalent structural elements with insubstantial differences from the literal languages of the claims.

1. A server for enhancing interaction with a plurality of Internet of Things (IoT) devices, the server comprising:

a processor; and

a memory coupled to the processor, the memory comprising:

a database comprising one or more options corresponding to each of the IoT devices; and

one or more instructions executable by the processor for providing the one or more options to a user for enabling the user to select at least one option;

one or more instructions executable by the processor to receive information corresponding to the selection of the at least one option by the user; and

2. one or more instructions executable by the processor to configure at least one visual menu based on the received information, wherein the at least one visual menu enables controlling the plurality of Internet of Things (IoT) devices irrespective of their locations. The server of claim **1**, wherein the plurality of Internet of Things (IoT) devices consist of a plurality of electronics devices, a plurality of kitchen appliances, a plurality of vehicles, or a combination thereof.

3. The server of claim **1**, wherein the user can select at least one option by at least a voice command, a gesture, a hand movement, a combination of keys or a combination thereof.

4. The server of claim **1**, wherein the memory further comprising one or more instructions for authenticating the user prior to providing the one or more options to the user.

5. The server of claim **1**, wherein the memory further comprising one or more instructions for storing the configured visual menu in the database.

6. The server of claim **1**, wherein the memory further comprising one or more instructions executable by the processor for providing one or more mode options to the user for enabling the user to select a mode option there from, the mode option being selected for receiving the visual menu in the selected mode option.

7. The server of claim **1**, wherein the one or more options correspond to at least one of a service or a remote device.

8. The server of claim **3**, wherein the memory further comprising one or more instructions to enable the one or more other users to provide rating for the visual menu configured by the user.

9. The server of claim **8**, wherein the memory further comprising one or more instructions to customize the visual menu based on the rating received from the one or more other users.

10. The server of claim **1**, wherein the user being enabled to select the at least one option to perform at least one of:

interaction with the things corresponding to the at least one option; and personalizing the at least one option based on one or more preferences of the user.

11. A system for enhancing interaction with a plurality of Internet of Things (IoT) devices in a communication network, the system comprising:

a server, the server comprising one or more options corresponding to the plurality of IoT devices; and

a device communicably coupled to the server through the communication network, the device configured for enabling a user to access the one or more options to select at least one option, the at least one option being selected to configure at least one visual menu corresponding to the plurality of IoT devices,

wherein the at least one visual menu can control the plurality of IoT devices irrespective of their locations,

wherein the user being enabled to access the one or more options by authenticating with the server.

12. The system of claim **11**, wherein the plurality of Internet of Things (IoT) devices consist of a plurality of electronics devices, a plurality of kitchen appliances, a plurality of vehicles, or a combination thereof.

13. The system of claim **11**, wherein the device comprises a display screen to provide the configured visual menu to the user.

14. The system of claim **11**, wherein the device is further configured to:

share the visual menu with one or more other users for enabling the other users to perform one or more operations corresponding to the visual menu, the one or more operations comprising:

customizing the visual menu; and

providing one or more inputs for the visual menu;

enable a user to provide one or more inputs corresponding to the customized visual menu; and

configure another visual menu based on the inputs, corresponding to the visual menu, provided by the other users and the inputs, corresponding to the customized visual menu, provided by the user.

15. A server for enhancing interaction with a plurality of Internet of Things (IoT) devices, the server comprising:

a processor; and

a memory coupled to the processor, the memory comprising:

a database comprising one or more visual menus corresponding to each of the things; and

one or more instructions, executable by the processor, for providing at least one visual menu, from the one or more visual menus, to a user for enabling the user to interact with the plurality of IoT devices irrespective of their locations;

one or more instructions, executable by the processor, for providing an enhanced visual menu based on the interaction of the user with the visual menu; and

one or more instructions, executable by the processor, for enabling the user to interact with the enhanced visual menu to control one or more operations corresponding to the things.

16. The server of claim **15**, wherein the plurality of Internet of Things (IoT) devices consist of a plurality of electronics devices, a plurality of kitchen appliances, a plurality of vehicles, or a combination thereof.

17. The server of claim **15**, wherein the memory further comprising one or more instructions to create the visual menu based on one or more preferences of the user, the visual menu being created prior to providing the visual menu to the user.

18. The server of claim **15**, wherein the memory further comprising one or more instructions to provide one or more advertisements to the user, the advertisements correspond to at least one of the visual menu or the enhanced visual menu.

19. The server of claim **15**, wherein the visual menu being provided to the user based on profile of the user, the profile of the user being stored in the database.

20. The server of claim **15**, wherein the memory further comprising instructions executable by the processor to:

enable one or more second users for customizing a second menu based on the visual menu;

receive a rating for the customized second menu from one or more other users; and

customize the visual menu based on the rating received for the customized second menu.

* * * * *