

INTERPHONE SYSTEM AND COMMUNICATION METHOD

TECHNICAL FIELD

The present invention relates generally to an interphone system and an interphone
5 communication method including an access management method for enabling the same.

Background

Building entrances typically utilises an intercom system for communication and visitor
access. Communication is usually directed from the entrance intercom system to the
10 intercom system within the apartment unit that the visitor intends to reach. In many instance,
the use of such in-unit intercom system is inconvenient especially when the tenant is not
near the intercom system or is somewhere else in the building. Further, the intercom system
requires a server to be installed within the building. Further, multiple services for voice, for
example a phone line, and data, to be networked to the in-building server, needs to be
15 installed for the network of intercoms to functions. Hence, there is a need for a solution to
the foregoing issues.

Summary

In accordance with a first aspect of the invention, there is disclosed an access management
20 method comprising receiving a task request by a central server from a computing device
being associated with a resident identifier with the task request being indicative of an
interphone control device and at least one task to be performed therewith. The access
management method further comprises sending task instruction by the central server to the
interphone system in response to the task request being received by the central server for
25 initiating the at least one task, the at least one task comprising at least one of establishing
one of voice and video communication between the computing device and the interphone
system and signaling an access control system by the interphone system to switch between
a first mode and a second mode, the access control system for impeding access through a
passageway when in a first mode and for enabling access through the passageway when in a
30 second mode.

In accordance with a second aspect of the invention, there is disclosed an interphone system comprising a controller, a user interface (UI) coupled to the controller for enabling user interaction therevia, a communication module coupled to the controller and comprising an
5 access point for enabling signal communication and data exchange between the controller and a central server through the Internet, the communication module further for enabling at least one of data, voice and video exchange between the UI and at least one computing device in communication with the central server, and an interface module for interfacing the controller and an access control system for receiving control instructions from the controller
10 for switching the access control system between a first mode for impeding access through a passageway defined by the access control system and a second mode for enabling access through the passageway. Task instruction is receivable from the central server for initiating at least one task in response to a task request being received by the central server from the at least one computing device being associated with a resident identifier, the interphone system
15 and the at least one task to be performed therewith being indicated by the task request received by the central server. The at least one task is initiated in response to the task instruction being received by the interphone system, the at least one task comprising at least one of establishing one of voice and video communication between the computing device and the interphone system and signaling the access control system by the interphone system
20 to switch between the first mode and the second mode.

In accordance with a third aspect of the invention, there is disclosed an interphone communication method comprising receiving task instruction from a central server for initiating at least one task in response to a task request being received by the central server
25 from a computing device being associated with a resident identifier with the interphone system and the at least one task to be performed therewith being indicated by the task request received by the central server. The interphone communication method further comprises initiating the at least one task in response to the task instruction being received by the interphone system, the at least one task comprising at least one of establishing one of
30 voice and video communication between the computing device and the interphone system

and signaling an access control system by the interphone system to switch between a first mode and a second mode, the access control system for impeding access through a passageway when in a first mode and for enabling access through the passageway when in a second mode.

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In accordance with a fourth aspect of the invention, there is disclosed a machine-readable medium having stored therein a plurality of programming instructions, which when executed, the instructions cause the machine comprising an interphone system, to receive task instruction from a central server for initiating at least one task in response to a task request being received by the central server from a computing device being associated with a resident identifier, the interphone system and the at least one task to be performed therewith being indicated by the task request received by the central server. The plurality of programming instructions, when executed, causes the interphone to initiate the at least one task in response to the task instruction being received by the interphone system, the at least one task comprising at least one of establishing one of voice and video communication between the computing device and the interphone system and signaling an access control system by the interphone system to switch between a first mode and a second mode, the access control system for impeding access through a passageway when in a first mode and for enabling access through the passageway when in a second mode, the access through the passageway being access to at least one of a passageway, a door-way, a driveway, a lift entrance, a gantry passageway and a turnstile passageway. Signal communication and data exchange between the controller and the central server is via the Internet, and the communication module further for enabling at least one of data, voice and video exchange between the UI and at least one computing device in communication with the central server being enabled by an Internet connection, and the lift entrance is for a lift system whereto the tenant identifier may be providable by the controller for directing a lift carriage of the lift system to a floor level associated with the tenant identifier.

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Brief Description of the Drawings

For a better understanding of the present disclosure, non-limiting and non-exhaustive embodiments are described in reference to the following drawings. In the drawings, like reference numerals refer to parts through all the various figures unless otherwise specified.

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FIG. 1 shows an exemplary system diagram of an interphone system in accordance with an aspect of the invention;

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FIG. 2 shows an exemplary process flow diagram of an interphone communication method utilized by the interphone system of FIG. 1;

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FIG. 3 shows an exemplary process flow diagram of an access management method for enabling use of the interphone system of FIG. 1 and the interphone communication method of FIG. 2 to manage access;

FIG. 4 shows an exemplary process flow sequence diagram when a visitor initiates an access request to computing devices of tenants of a building through a central server using the interphone system of FIG. 1;

FIG. 5 shows an exemplary process flow sequence diagram when the tenant has initiated tasks for one or more of video/voice communication with the interphone system of FIG. 1 and signaling an access control system via the interphone system to provide access to the visitor; and

FIG. 6 shows an exemplary screen of the tenant's computing device displaying multiple response options corresponding to multiple interphone systems as in FIG, 1 at multiple location where access is to be managed.

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Detailed Description

An exemplary embodiment of the present invention, an access management method 100 utilising an interphone system 20 operable with an interphone communication method 200, is described hereinafter with reference to FIG. 1 to FIG 6. FIG. 1 depicts an exemplary system architecture of the interphone system 20, with data flow therewithin, that can execute implementations of the present disclosure.

Preferably, the interphone system 20 comprises a controller 22, a user interface (UI) 24 coupled to the controller 22 for enabling user interaction therevia, and a communication module 26 coupled to the controller 22 and comprising an access point for enabling signal communication and data exchange between the controller 22 and a central server 28 through the Internet. Hence, when implemented, only an internet connection is required for coupling to the interphone system 20, specifically the communication module 26 thereof and in addition to a power supply for powering the interphone system 20, to enable operations of the interphone system 20 via the interphone communication method 200. No additional third party or physical server or phone line connection is required for operations of the interphone system 20. The communication module 26 is further for enabling at least one of data, voice and video exchange between the UI 24 and at least one computing device 30 in communication with the central server 28. The interphone system 20 further comprises an interface module 32 for interfacing the controller 22 and an access control system 34 for receiving control instructions from the controller 22 for switching the access control system 34 between a first mode for impeding access through a passageway defined by the access control system 34 and a second mode for enabling access through the passageway. Additionally or alternatively, the control instructions from the controller may be sent wirelessly to the access control system 34 through the communication module 26, either directly or via the central server 28.

Hence, when applying the interphone communication method 200, task instruction is receivable from the central server 28 in a step 210 for initiating at least one task in response to a task request being received by the central server 28 from the computing device 30

which is associated with a resident identifier. The interphone system 20 and the at least one task to be performed therewith being indicated by the task request received by the central server 28. Preferably, the at least one task is initiated in response to the task instruction being received by the interphone system 20 in a step 212. The at least one task comprises at least one of establishing one of voice and video communication between the computing device 30 and the interphone system 20 and signaling the access control system 34 by the interphone system 20 to switch between the first mode and the second mode. The at least one task further comprises terminating one of voice and video communication between the computing device 30 and the interphone system 20.

The UI 24 further comprises at least one of a display screen, a touch-screen, a button array, at least one camera, a microphone and a speaker for enabling user-interaction therewith. Preferably, the at least one computing device 30 can represent various forms of processing devices including, but not limited to, a desktop computer, a laptop / notebook computer, a handheld computer, a smartphone, a smart tablet, a cellular telephone, a network appliance, a media player, a navigation device, an email device, a game console, an intercom kiosk/station/device or a combination of any two or more of these processing devices. The at least one computing device 30 may access a software application that is native, wholly or partially (e.g. hybrid) thereto or via a web service application software on the central server 28. The central server 28 can represent various forms of server systems including, but not limited to a web server, an application server, a proxy server, a network server, or a server farm. For example, one or more of the servers can be an application server that executes software accessed by the at least one computing device 30 and the interphone system 20. Each application can individually access data from one or more repository resources (e.g., datastores).

The signal communication and data exchange between the controller 22 and the central server 28 is via the Internet, and the communication module 26 is further for enabling at least one of data, voice and video exchange between the UI 24 and at least one computing device 30 in communication with the central server 28 being enabled by an Internet

connection. Preferably, the access through the passageway refers to access to at least one of a passageway, a door-way, a driveway, a lift entrance, a gantry passageway and a turnstile passageway. Further, the lift entrance is for a lift system whereto the tenant identifier may be providable by the controller 22 for directing a lift carriage of the lift system to a floor
5 level associated with the tenant identifier.

The interphone communication method 200 further comprises a step 214 of the controller 22 sending an access request to the central server 28, the access request containing address data generated from user interaction with the UI 24, the address data being indicative of the
10 resident identifier. The access request is communicated by the central server 28 to the computing device 30 associated with the resident identifier upon receipt thereof for initiating presentation of at least one response option on the computing device 30 with the task request being generated and sent to the central server 28 by the computing device 30 in response to one of the at least one response option being selected.

15 In effecting the functioning of the interphone system using the interphone communication method 200, the central server 28 employs the access management method 100. The access management method 100 comprises a step 110 of receiving the task request by the central server 28 from the computing device 30 being associated with a resident identifier and a step
20 112 of sending the task instruction by the central server 28 to the interphone system 20 in response to the task request being received by the central server 28 for initiating the at least one task. Further, the access management method further comprises a step 114 to enable terminating one of voice and video communication between the computing device 30 and the interphone system 20. Preferably, the central server 28 employs a session initiation
25 protocol (SIP) signaling protocol used for initiating, maintaining, modifying and terminating real-time sessions for video, voice, messaging and other communications applications and services between the interphone system, the central server 28 and the at least one computing device 30 over the Internet.

Preferably, the access management method further comprises a step 120 of receiving the access request from the interphone system 20 and a step 122 of sending the access request from the central server 28 to the computing device 30 associated with the resident identifier. The access request is to initiate presentation of at least one response option on the computing device 30 with the task request being generated and sent to the central server 28 by the computing device 30 in response to one of the at least one response option being selected through tenant or user interaction with the computing device 30.

Further, in sending the access request from the central server 28 to the computing device 30 associated with the resident identifier, the step 112 comprises determining availability of a plurality of listed devices in a pre-determined ordinal sequence by the central server 28 in a step 130 and designating one of the plurality of listed devices that has been determined as available as the computing device 30 for sending the access request thereto in a step 132. When implemented, this ensures that if the tenant of the residential unit, commercial unit, common, or paid usage area to be reached by a visitor using the interphone system is not reachable by, for example, the tenant's primary smart phone device (the computing device 30), access may still be granted to the visitor through the tenant's secondary smart phone device or the smart phone device of another person designated by the tenant for granting access in his absence or unavailability.

The interphone communication method 200 may be provided in the form of a machine-readable medium having stored therein a plurality of programming instructions, which when executed, the instructions cause the machine comprising an interphone system 20, to receive task instruction from a central server 28 for initiating at least one task in response to a task request being received by the central server 28 from a computing device 30 being associated with a resident identifier, the interphone system 20 and the at least one task to be performed therewith being indicated by the task request received by the central server 28. The plurality of programming instructions, when executed, causes the interphone to initiate the at least one task in response to the task instruction being received by the interphone system 20, the at least one task comprising at least one of establishing one of voice and video

communication between the computing device 30 and the interphone system 20 and signaling an access control system 34 by the interphone system 20 to switch between a first mode and a second mode, the access control system 34 for impeding access through a passageway when in a first mode and for enabling access through the passageway when in a second mode, the access through the passageway being access to at least one of a passageway, a door-way, a driveway, a lift entrance, a gantry passageway and a turnstile passageway. Signal communication and data exchange between the controller 22 and the central server 28 is via the Internet, and the communication module 26 further for enabling at least one of data, voice and video exchange between the UI 24 and at least one computing device 30 in communication with the central server 28 being enabled by an Internet connection, and the lift entrance is for a lift system whereto the tenant identifier may be providable by the controller 22 for directing a lift carriage of the lift system to a floor level associated with the tenant identifier.

Preferably, the interphone system 20 is a full cloud based interphone system, requiring only an internet connection, capable of providing duplex audio calls to the identified user's cell phones and landline phones, as well as video calls to the identified user's smartphone device (i.e. the computing device 30) on an app to allowing user to grant access remotely on their device anywhere in the world with a WiFi, Ethernet, Cellular or telephone network.

The interphone system 20 comprises an LCD display, keypad or touch interface, Camera, Microphone, Speakers and CPU with the cloud-based system, enabled through the central server 28 which is located off-site and communicates with multiple locations, even across geographical boundaries, employing the interphone system 20. This cloud system eliminates the need for deployment of a physical server, networking equipment, or an on-site PBX.

The entire video call and audio call process is facilitated and coordinated by our cloud server over the internet. For example, video calls connect to users' smartphone devices on Android and iOS applications, streaming camera video feed and data directly from the cloud

servers to the users smartphone application. Audio calls are made to landline telephones and cellular phones; this is coordinated by our cloud servers, without the need for a subscription to an external telephone service provider or external SIP provider. During a call, users have the option to select one or more actuators to remotely open gates, doors, entrances or grant private elevator access.

If the user fails to pick up or rejects the video app or telephone call, the interphone system will automatically divert the call to the next user, and so on. Programming of telephone numbers and mobile application users are done over the internet in any internet browser, without any additional software required. Smartphone users with the mobile application may receive video app calls, as well as use their device to remotely grant access to the access control system 24 that they are connected to, communicating through the cloud server over the internet.

Preferably, the device, specifically the interphone system 20, is capable of making video calls to instances of our mobile app and audio calls to regular phone numbers. The video and audio calling procedure is coordinated by a remote server which the device is able to communicate with using a web based API. The device is also continuously connected to an message queuing telemetry transport (MQTT) broker from where it's able to receive commands by the server at any time. For making the call we utilize the SIP protocol for both calls to app users and regular phone numbers. In case of the former everything is handled internally by our SIP server, while for the latter the call gets forwarded to an external SIP trunk.

The calling procedure is as follows, the device makes a new call request to the application programming interface (API) of our server, specifically the aforesaid central server 28 which is an SIP server. The server will then check and authorize the call request, if the request for the particular call gets authorized the server replies to the device with a set of temporary SIP credentials. The device then uses these SIP credentials to register to our

server and after that it attempts to make the call. The call can be to either an ID of an application user or to a regular phone number.

5 In case of the former the server is going to send a push notification to the application instance on the computing device 30 that the user ID corresponds to, and wait a specified amount of time for the application to register to the SIP server. If that happens the SIP server forwards the call to the particular application instance and the phone starts ringing, or the call is dropped if it doesn't. The phone will continue to ring until the user picks it up, or the wait timeout of the device is being reached. If the user picks up the call they have the
10 ability through the app to, watch a video stream of the person on the other end, talk to them and finally decide whether they want to terminate the call or open the door. If the user decides to open the door the app will send a command to our SIP server, which then will activate a script which is going to result in a return command to be sent to the device signaling access to be granted, which will then activate its corresponding actuators.

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Now, in case that the call is to a regular phone number the SIP server is going to forward the call to an SIP trunk which is used as a bridge between our own infrastructure and the telephone network. Once that happens the user's phone will receive the call and start to ring. If the user accepts the call they are able to communicate with the person on the other end
20 like before, but this time directly via a regular phone call instead of the use of a mobile application. The user has the option to either hang up the call or by using the keypad on their device send a dual tone multi frequency (DTMF) tone to the the SIP server in order to open the door. If the SIP server received a DTMF tone from the user's phone it will handle it the same way as it does with an app call.

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Now back to the app calls, as explained previously these include both video as well as bidirectional audio, the audio component is part of the SIP call, the video component though is not. The video is streamed by the device to our server completely interdependently from the SIP call, and our server then makes it available as a real-time streaming protocol (RTSP)
30 stream for the app to play back to the user for the duration of the call.

When in use, the interphone system 20 is preferably for to control access to, from and within a building via a plurality of independent entrance stations comprising a plurality of internet
5 IP connections, a plurality of connections to the doors, lifts, or entrances. The interphone system 20 preferably connects wirelessly to a cloud server, for example the central server 28, which in turn connects wirelessly to a plurality of smartphone cellular connections or landline telephones to send and receive information to and from the said interphone system.

- 10 The interphone system 20 preferably runs on a full IP system, capable of making VoIP audio calls to all landline phones and mobile phones and making IP to IP video calls to smartphones and computer devices.

The interphone system 20 allows registered users to remotely control a plurality of
15 connections to the doors, lifts, or entrances using a landline phone or mobile device and is able to run on a single internet connection with said specific implementation involves a smartphone or device with a cellular connection with a registered application that is connected to the internet or a landline telephone which diverts the said calls to the next available user at the programmed sequence from the said interphone system 20.

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Preferably, the interphone system 20 is a plug and play device deployable without the need for an indoor substation unit, connectivity to other said systems, a dedicated server, network equipment, configuration or setup, Wi-Fi connectivity, IP PBX hardware, SIP Trunking hardware or a telephone.

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The interphone system 20 handles VoIP calls and IP calls which are wholly handled internally by our said interphone system with our central server 28, the SIP server, fully coordinating the process. Programming of unit telephone numbers and smartphone application users are done wirelessly on any internet browser from any computer device,
30 without the need for any additional software or hardware. SIP trunking and IP to IP

functionality on our servers facilitate calls to be made between the interphone system 20 and computing device 30 without the need for a subscription to any third party telecommunication service or equipment provider.

- 5 Aspects of particular embodiments of the present disclosure address at least one aspect, problem, limitation, and/or disadvantage associated with existing computer-implemented methods and systems. While features, aspects, and/or advantages associated with certain embodiments have been described in the disclosure, other embodiments may also exhibit such features, aspects, and/or advantages, and not all embodiments need necessarily exhibit
- 10 such features, aspects, and/or advantages to fall within the scope of the disclosure. It will be appreciated by a person of ordinary skill in the art that several of the above-disclosed structures, components, or alternatives thereof, can be desirably combined into alternative structures, components, and/or applications. In addition, various modifications, alterations, and/or improvements may be made to various embodiments that are disclosed by a person of
- 15 ordinary skill in the art within the scope of the present disclosure, which is limited only by the following claims.

Claims

1. An access management method comprising:

receiving a task request by a central server from a computing device being associated with a resident identifier, the task request being indicative of an intercom control device and at least one task to be performed therewith; and

sending task instruction by the central server to the intercom system in response to the task request being received by the central server for initiating the at least one task, the at least one task comprising at least one of establishing one of voice and video communication between the computing device and the intercom system and signaling an access control system by the intercom system to switch between a first mode and a second mode, the access control system for impeding access through a passageway when in a first mode and for enabling access through the passageway when in a second mode.

2. The access management method as in claim 1, the access through the passageway being access to at least one of a passageway, a door-way, a driveway, a lift entrance, a gantry passageway and a turnstile passageway,

wherein the lift entrance is for a lift system whereto the tenant identifier may be providable by the controller for directing a lift carriage of the lift system to a floor level associated with the tenant identifier.

3. The access management method as in claim 1, the at least one task further comprising:

terminating one of voice and video communication between the computing device and the intercom system.

4. The access management module as in claim 1, signal communication and data exchange between the controller and the central server is via the Internet, and the communications module further for enabling at least one of data, voice and video exchange between the UI and at least one computing device in communication with the central server being enabled by an Internet connection,

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wherein the computing device is one of a smart phone, a smart tablet, a computer notebook, an intercom device and a computer desktop system.

5. The access management method as in claim 1, further comprising;

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receiving an access request from the intercom system, the access request containing address data generated from user interaction with the intercom system, the address data being indicative of the resident identifier; and

sending the access request from the central server to the computing device associated with the resident identifier,

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wherein the access request is to initiate presentation of at least one response option on the computing device with the task request being generated and sent to the central server by the computing device in response to one of the at least one response option being selected.

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6. The access management method as in claim 5, sending the access request from the central server to the computing device associated with the resident identifier comprising:

determining availability of a plurality of listed devices in a pre-determined ordinal sequence by the central server; and

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designating one of the plurality of listed devices that has been determined as available as the computing device for sending the access request thereto.

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7. An intercom system comprising:

a controller;

a user interface (UI) coupled to the controller for enabling user interaction therevia;

5 a communications module coupled to the controller and comprising an access point for enabling signal communication and data exchange between the controller and a central server through the Internet, the communications module further for enabling at least one of data, voice and video exchange between the UI and at least one computing device in communication with the central server; and

10 an interface module for interfacing the controller and an access control system for receiving control instructions from the controller for switching the access control system between a first mode for impeding access through a passageway defined by the access control system and a second mode for enabling access through the passageway,

15 wherein task instruction is receivable from the central server for initiating at least one task in response to a task request being received by the central server from the at least one computing device being associated with a resident identifier, the intercom system and the at least one task to be performed therewith being indicated by the task request received by the central server; and

20 wherein the at least one task is initiated in response to the task instruction being received by the intercom system, the at least one task comprising at least one of establishing one of voice and video communication between the computing device and the intercom system and signaling the access control system by the intercom system to switch between the first mode and the second mode.

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8. The intercom system as in claim 7, the UI further comprising at least one of a display screen, a touch-screen, a button array, at least one camera, a microphone and a speaker for enabling user-interaction therewith.

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9. The intercom system as in claim 7, the signal communication and data exchange between the controller and the central server via the Internet, and the communications module further for enabling at least one of data, voice and video exchange between the UI and at least one computing device in communication with the central server being enabled by an Internet connection,

wherein the computing device is one of a smart phone, a smart tablet, a computer notebook, an intercom device and a computer desktop system.

10. The intercom system as in claim 7, the access through the passageway being access to at least one of a passageway, a door-way, a driveway, a lift entrance, a gantry passageway and a turnstile passageway,

wherein the lift entrance is for a lift system whereto the tenant identifier may be providable by the controller for directing a lift carriage of the lift system to a floor level associated with the tenant identifier.

11. The intercom system as in claim 7, the at least one task further comprising:

terminating one of voice and video communication between the computing device and the intercom system.

12. The intercom system as in claim 7, the controller further for:

sending an access request to the central server, the access request containing address data generated from user interaction with the UI, the address data being indicative of the resident identifier; and

wherein the access request is communicated by the central server to the computing device associated with the resident identifier upon receipt thereof for initiating presentation of at least one response option on the computing device with the task request being generated and sent to the central server by the computing device in response to one of the at least one response option being selected.

13. The intercom system as in claim 11, the central server further for:
determining availability of a plurality of listed devices in a pre-determined ordinal sequence by the central server; and
designating one of the plurality of listed devices that has been determined as
5 available as the computing device for sending the access request thereto.
14. An intercom communication method comprising:
receiving task instruction from a central server for initiating at least one task in response to a task request being received by the central server from a computing
10 device being associated with a resident identifier, the intercom system and the at least one task to be performed therewith being indicated by the task request received by the central server; and
initiating the at least one task in response to the task instruction being received by the intercom system, the at least one task comprising at least one of establishing
15 one of voice and video communication between the computing device and the intercom system and signaling an access control system by the intercom system to switch between a first mode and a second mode, the access control system for impeding access through a passageway when in a first mode and for enabling access through the passageway when in a second mode.
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15. The intercom communication method as in claim 14, the access through the passageway being access to at least one of a passageway, a door-way, a driveway, a lift entrance, a gantry passageway and a turnstile passageway,
wherein the lift entrance is for a lift system whereto the tenant identifier may
25 be providable by the controller for directing a lift carriage of the lift system to a floor level associated with the tenant identifier.

16. The intercom communication method as in claim 14, the at least one task further comprising:

terminating one of voice and video communication between the computing device and the intercom system.

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17. The intercom communication method as in claim 14, signal communication and data exchange between the controller and the central server is via the Internet, and the communications module further for enabling at least one of data, voice and video exchange between the UI and at least one computing device in communication with the central server being enabled by an Internet connection,

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wherein the computing device is one of a smart phone, a smart tablet, a computer notebook, an intercom device and a computer desktop system.

18. The intercom communication method as in claim 14, further comprising;

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sending an access request from the intercom system to the central server, the access request containing address data generated from user interaction with the intercom system, the address data being indicative of the resident identifier; and

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wherein the access request is communicated by the central server to the computing device associated with the resident identifier upon receipt thereof for initiating presentation of at least one response option on the computing device with the task request being generated and sent to the central server by the computing device in response to one of the at least one response option being selected.

19. The intercom communication method as in claim 14, communicating the access request by the central server to the computing device associated with the resident identifier comprising:

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determining availability of a plurality of listed devices in a pre-determined ordinal sequence by the central server; and

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designating one of the plurality of listed devices that has been determined as available as the computing device for sending the access request thereto.

20. A machine-readable medium having stored therein a plurality of programming instructions, which when executed, the instructions cause the machine comprising an intercom system, to:

5 receive task instruction from a central server for initiating at least one task in response to a task request being received by the central server from a computing device being associated with a resident identifier, the intercom system and the at least one task to be performed therewith being indicated by the task request received by the central server; and

10 initiate the at least one task in response to the task instruction being received by the intercom system, the at least one task comprising at least one of establishing one of voice and video communication between the computing device and the intercom system and signaling an access control system by the intercom system to switch between a first mode and a second mode, the access control system for
15 impeding access through a passageway when in a first mode and for enabling access through the passageway when in a second mode, the access through the passageway being access to at least one of a passageway, a door-way, a driveway, a lift entrance, a gantry passageway and a turnstile passageway,

 wherein signal communication and data exchange between the controller and
20 the central server is via the Internet, and the communications module further for enabling at least one of data, voice and video exchange between the UI and at least one computing device in communication with the central server being enabled by an Internet connection, and

 wherein the lift entrance is for a lift system whereto the tenant identifier may
25 be providable by the controller for directing a lift carriage of the lift system to a floor level associated with the tenant identifier.

21. The machine-readable medium as in claim 20, the instructions, when executed, further cause the machine to:

terminate one of voice and video communication between the computing device and the intercom system.

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22. The machine-readable medium as in claim 20, the instructions, when executed, further cause the machine to:

send an access request to the central server, the access request containing address data generated from user interaction with the intercom system, the address data being indicative of the resident identifier; and

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wherein the access request is communicated by the central server to the computing device associated with the resident identifier upon receipt thereof for initiating presentation of at least one response option on the computing device with the task request being generated and sent to the central server by the computing device in response to one of the at least one response option being selected.

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