Claims

1. A building door system (1) comprising multiple single-door systems (2) which are communicatively coupled to a communications network (8), and multiple operating and wayfinding devices (6), each of which is associated with one of the single-door systems (2) and which are communicatively connectable to one another by a communications network (8), wherein each single-door system (2) comprises a frame (2a) installed in a building wall and a door element (2b) which is movably arranged therein, which in an open state releases a passage between an outdoor space and an interior space and in a closed state blocks the passage, and a closing device (40, 42), wherein each operating and wayfinding device (6) comprises:

a storage device (36) in which an identifier of the operating and wayfinding device (6) is stored;

a control and processing device (30) connected to the storage device (36) and the closing device (40, 42);

a detection device (44) communicatively connected to the control and processing device (30) for detecting a credential of a person (4), wherein the single-door system (2) releases an access when a credential is valid at this single-door system (2);

a display device (32) which is communicatively connected to the control and processing device (30) and has a user interface (33) facing an outdoor space which can be viewed by a person (4) located in the outdoor space,

wherein the control and processing device (30) is designed, when a notification credential is detected which is invalid at the single-door system (2), to generate a request signal with data of the notification credential (ID) and the individual identifier and to feed it into the communications network (8), to receive a response signal via the communications network (8) and to extract wayfinding information contained in the response signal and assigned to the credential, and to control the display device (32) to display the wayfinding information on the user interface (33).

2. The building door system (1) according to claim 1, wherein at least one single-door system (2) comprises a single-action door or a sliding door.

3. The building door system (1) according to any of the preceding claims, wherein a single-door system (2) has an interface device (28) configured to transmit the request signal to a building management system (22) via the communications network (8) and to

receive the response signal from the building management system (22) via the communications network (8), wherein the building management system (22) is configured to determine the wayfinding information.

4. The building door system (1) according to any of claims 1 to 2, wherein a single-door system (2) has an interface device (28) which is designed to transmit the request signal to further single-door systems (2) via the communications network (8) and to receive the response signal via the communications network (8) from one of the further single-door systems (2) to which the credential is assigned and which determines the wayfinding information.

5. The building door system (1) according to any of the preceding claims, wherein the display device (32) of an operating and wayfinding device (6) is arranged on a door element (2b) or a frame (2a) of a single-door system (2) or on a building wall at a fixed distance from the frame (2a) of a single-door system (2).

6. The building door system (1) according to any of the preceding claims, wherein at least one of the operating and wayfinding devices (6) has a further display device (34) which is communicatively connected to the control and processing device (30) and has a user interface (35) facing an interior space, which user interface can be viewed and/or operated by a person (4) who is located in the interior space.

7. The building door system (1) according to any of the preceding claims, wherein the at least one operating and wayfinding device (6) has an optical system (38), wherein the optical system (38) is configured to generate an image recording of the outdoor space and/or to record a credential.

8. The building door system (1) according to any of claims 6 or 7, in which the storage device (36) of an operating and wayfinding device (6) stores destinations which can be reached by a person (4) in the building, in which the control and processing device (30) is designed to control the further display device (34) to display at least one of these destinations for a destination input, and in which the storage device (36) stores the destination input.

9. The building door system (1) according to claim 8, in which the control and processing device (30) is designed to transmit the destination input via the communications network (8) to an elevator controller (20), to receive an elevator allocation determined by the elevator controller (20) via the communications network (8) and to control the further display device (34) to display the elevator allocation.

10. A method of operating a building door system (1) according to any of claims 1 to 9, having:
detecting a credential of a person (4) by a detection device (44) of an operating and wayfinding device (6) of a single-door system (2), wherein the credential is invalid at the single-door system (2);
generating a request signal by a control and processing device (30) of the operating and wayfinding device (6), wherein the request signal comprises data of the notification credential (ID) and an individual identifier of the single-door system (2);
feeding the request signal into the communications network (8) by the control and processing device (30);
receiving a response signal via the communications network (8) by the control and processing device (30);
extracting wayfinding information contained in the response signal and associated with the credential by the control and processing device (30); and
controlling a display device (32) of the operating and wayfinding device (6) to display the wayfinding information on a user interface (33) of the display device (32).

11. The method according to claim 10, wherein feeding the request signal into the communications network (8) comprises transmitting the request signal to a building management system (22), and wherein the control and processing device (30) receives the response signal from the building management system (22) configured to determine the wayfinding information.

12. The method according to claim 11, wherein feeding the request signal into the communications network (8) comprises transmitting the request signal to further single-door systems (2), and wherein the control and processing device (30) receives the response signal from one of the further single-door systems (2) to which the credential is assigned and by which the wayfinding information is determined.