

to a certain client and/or a certain application. The expression "client communication port" means that a communication port of the terminal is related or connected to a certain client and/or a certain application, e.g. while the client has registered itself for listening to this communication port.

5 By having the MSISDN number of a terminal and a port number or identifier, any client and/or application on a terminal can be addressed or reached.

According to one aspect there is provided a first method executed in a server in a communication network, as set out in claim 1. The server may handle messages for at least  
10 one client and/or application.

~~The first method~~ Methods disclosed herein may comprise to identify a deterioration in a connectivity or reachability between the server and the at least one client and/or application.

~~Methods disclosed herein~~ The first method may further comprise to transmit a re-establishment message to the at least one client and/or application using a different type of communication than the connectivity or reachability. The re-establishment message is adapted or contains such information so as to make or enable the at least one client and/or application to re-establish the connectivity or reachability. The re-establishment message may also be empty, i.e. contain no information, e.g. contain no information in the body of  
15 the re-establishment message.

~~Methods disclosed herein~~ The first method may optionally have the following further characteristics:

In one embodiment the connectivity or reachability is established via or through a  
25 pinhole in a firewall.

In another embodiment the deterioration is a termination of an open state of said pinhole.

In a further embodiment the deterioration is an interruption of said connectivity or  
30 reachability.

In yet a further embodiment the deterioration is identified by said server.

In another embodiment the re-establishment message is transmitted from the server to the at least one client and/or application.

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In a further embodiment the connectivity or reachability is re-established to the state it had before the deterioration.

In another embodiment the measure of identifying a deterioration in a connectivity or reachability may be preceded by the step of establishing a connectivity or reachability between the at least one client and/or application, and said server.

The measure of identifying a deterioration in a connectivity or reachability may further be preceded by the step of registering, or making available, a terminal address and a client communication port identifier of the at least one client at or for the server.

In a further embodiment the terminal address is the Mobile Subscriber Integrated Services Digital Network Number (MSISDN) of a terminal of the at least one client, and the client communication port identifier relates to a client communication port, being e.g. a WAP Push port, of the at least one client and/or application.

According to another aspect there is provided a server arrangement in a server for handling messages for at least one client and/or application, as set out in claim 7. The server arrangement may comprise an identifying element for identifying a deterioration in a connectivity or reachability between the server and the at least one client and/or application.

~~The s~~Server arrangements disclosed herein may further comprise a transmitting element for transmitting a re-establishment message to the at least one client and/or application using a different type of communication than the connectivity or reachability. Whereby the re-establishment message is adapted to make or enable the at least one client and/or application to re-establish the connectivity or reachability.

Server arrangements disclosed herein~~The server arrangement~~ may optionally have the following further characteristics:

In one embodiment there is provided a server arrangement wherein the connectivity or reachability is established via or through a pinhole in a firewall.

In another embodiment there is provided a server arrangement wherein said deterioration is a termination of an open state of said pinhole.

## CLAIMS

1. A method, executed in a server (100) in a communication network, said server  
5 (100) handling messages for at least one client (108) and/or application (604), said method comprising the following steps:

10 - establishing a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100)

- registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) at or for said server (100)

15 - identifying a deterioration in a connectivity or reachability (116) between said server (100) and said at least one client (108) and/or application (604),

20 - transmitting a re-establishment message (500) to the port of said at least one client (108) and/or application (604) identified by the port identifier using a different type of communication than the connectivity or reachability, said message (500) making or enabling said at least one client (108) and/or application (604) re-establish said connectivity or reachability (116).

25 2. A method according to claim 1, wherein said connectivity or reachability (116), is established via or through a pinhole (124) in a firewall (106).

3. A method according to claim 2, wherein said deterioration is a termination of an open state of said pinhole (124).

30 4. A method according to any of the claims 1-3, wherein said deterioration is an interruption of said connectivity or reachability (116).

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5. A method according to any of the preceding claims, wherein said connectivity or reachability (116) is re-established to the state it had before said deterioration.

6. ~~A method according to any of the preceding claims, wherein the step of identifying a deterioration in a connectivity or reachability (116) is preceded by the steps of;~~

~~- establishing a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100), and~~

~~- registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) at or for said server (100);~~

76. A method according to claim 61, wherein said terminal address (620) is the Mobile Subscriber Integrated Services Digital Network Number (MSISDN) of a terminal (109) of said at least one client (108), and said client communication port identifier (624) relates to a client communication port (622), being a WAP Push port, of said at least one client (108) and/or application (604).

87. A server arrangement (300) in a server (100) for handling messages for at least one client (108) and/or application (604), said server arrangement (300) comprising:

- an establishing element (310) adapted to establish a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100)

- a registering element (306) for registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) and/or application (604) at or for said server (100)

- an identifying element (302) for identifying a deterioration in a connectivity or reachability (116) between said server (100) and said at least one client (108) and/or application (604),

- a transmitting element (304) for transmitting a re-establishment message (500) to the port of said at least one client (108) and/or application (604) identified by the port identifier using a different type of communication than the connectivity or reachability, said re-establishment message (500) making or enabling said at least one client (108) and/or application (604) re-establish said connectivity or reachability (116).

98. A server arrangement (300) according to claim 87, wherein said connectivity or reachability (116), is established via or through a pinhole (124) in a firewall (106).

109. A server arrangement (300) according to claim 98, wherein said deterioration is a termination of an open state of said pinhole (124).

110. A server arrangement (300) according to any of the claims 87-109, wherein said transmitting element (304) is adapted to transmit a re-establishment message (500) that makes or enables said at least one client (108) and/or application (604) re-establish said connectivity or reachability (116) to the state it had before said deterioration.

~~12. A server arrangement (300) according to any of the claims 8-11, wherein said arrangement (300) comprises;~~

~~—an establishing element (310) adapted to establish a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100); and~~

~~—a registering element (306) for registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) and/or application (604) at or for said server (100);~~

111. A server arrangement (300) according to any of the claims 87-110, wherein said registering element (306) is adapted to retrieve or receive said terminal address (620) and said client communication port identifier (624) from said at least one client (108) and/or from a database (118).

- 5 | ~~42~~412. A server arrangement (300) according to claim ~~42 or 43~~11, wherein said terminal address (620) is the Mobile Subscriber Integrated Services Digital Network Number of the terminal (109) of said at least one client (108), and said client communication port identifier (624) relates to a client communication port (622), being a WAP Push port, of said at least one client (108) and/or application (604).

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## CLAIMS

1. A method, executed in a server (100) in a communication network, said server  
5 (100) handling messages for at least one client (108) and/or application (604), said method comprising the following steps:

10 - establishing a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100)

- registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) at or for said server (100)

15 - identifying a deterioration in a connectivity or reachability (116) between said server (100) and said at least one client (108) and/or application (604),

20 - transmitting a re-establishment message (500) to the port of said at least one client (108) and/or application (604) identified by the port identifier using a different type of communication than the connectivity or reachability, said message (500) making or enabling said at least one client (108) and/or application (604) re-establish said connectivity or reachability (116).

25 2. A method according to claim 1, wherein said connectivity or reachability (116), is established via or through a pinhole (124) in a firewall (106).

3. A method according to claim 2, wherein said deterioration is a termination of an open state of said pinhole (124).

30 4. A method according to any of the claims 1-3, wherein said deterioration is an interruption of said connectivity or reachability (116).

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5. A method according to any of the preceding claims, wherein said connectivity or reachability (116) is re-established to the state it had before said deterioration.

6. ~~A method according to any of the preceding claims, wherein the step of identifying a deterioration in a connectivity or reachability (116) is preceded by the steps of:~~

~~- establishing a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100), and~~

~~- registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) at or for said server (100).~~

76. A method according to claim 61, wherein said terminal address (620) is the Mobile Subscriber Integrated Services Digital Network Number (MSISDN) of a terminal (109) of said at least one client (108), and said client communication port identifier (624) relates to a client communication port (622), being a WAP Push port, of said at least one client (108) and/or application (604).

87. A server arrangement (300) in a server (100) for handling messages for at least one client (108) and/or application (604), said server arrangement (300) comprising:

- an establishing element (310) adapted to establish a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100)

- a registering element (306) for registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) and/or application (604) at or for said server (100)

- an identifying element (302) for identifying a deterioration in a connectivity or reachability (116) between said server (100) and said at least one client (108) and/or application (604),

- a transmitting element (304) for transmitting a re-establishment message (500) to the port of said at least one client (108) and/or application (604) identified by the port identifier using a different type of communication than the connectivity or reachability, said re-establishment message (500) making or enabling said at least one client (108) and/or application (604) re-establish said connectivity or reachability (116).

98. A server arrangement (300) according to claim 87, wherein said connectivity or reachability (116), is established via or through a pinhole (124) in a firewall (106).

109. A server arrangement (300) according to claim 98, wherein said deterioration is a termination of an open state of said pinhole (124).

110. A server arrangement (300) according to any of the claims 87-109, wherein said transmitting element (304) is adapted to transmit a re-establishment message (500) that makes or enables said at least one client (108) and/or application (604) re-establish said connectivity or reachability (116) to the state it had before said deterioration.

~~12. A server arrangement (300) according to any of the claims 8-11, wherein said arrangement (300) comprises;~~

~~—an establishing element (310) adapted to establish a connectivity or reachability (116) between said at least one client (108), and/or application (604), and said server (100); and~~

~~—a registering element (306) for registering, or making available, a terminal address (620) and a client communication port identifier (624) of said at least one client (108) and/or application (604) at or for said server (100);~~

111. A server arrangement (300) according to any of the claims 87-110, wherein said registering element (306) is adapted to retrieve or receive said terminal address (620) and said client communication port identifier (624) from said at least one client (108) and/or from a database (118).

- 5 | ~~42~~412. A server arrangement (300) according to claim ~~42 or 43~~11, wherein said terminal address (620) is the Mobile Subscriber Integrated Services Digital Network Number of the terminal (109) of said at least one client (108), and said client communication port identifier (624) relates to a client communication port (622), being a WAP Push port, of said at least one client (108) and/or application (604).

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