

Claims

1. A method of managing a connection between a user equipment (50) and a wireless
5 communication network, the method comprising:
an access point (100-1) of the communication network serving the connection to the user
equipment (50);
the access point (100-1) determining a plurality of target access points (100-2, 100-3); and
the access point (100-1) sending a message (204; 304) to the user equipment (50), the
10 message (204; 304) indicating said plurality of target access points (100-2, 100-3) and
authorizing the user equipment (50) to autonomously switch the connection to one or more of
the target access points (100-2, 100-3) wherein the message (204; 304) further indicates a
condition to be evaluated by the user equipment (50) for triggering the switching to said one
or more of the target access points (100-2, 100-3).
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2. The method according to claim 1,
wherein the message (204; 304) indicates multiple conditions to be evaluated by the user
equipment (50) for triggering the switching to said one or more of the target access points
(100-2, 100-3).
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3. The method according to claim 1 or 2,
wherein the message (204; 304) further indicates, for each of the target access points (100-
2, 100-3), information to be used by the user equipment (50) for connecting to this target
access point (100-2, 100-3), and/or
25 a priority order of the target access points (100-2, 100-3).
4. The method according to any one of the preceding claims, comprising:
30 the access point (100-1) sending the message (204; 304) in response to establishing the
connection between the user equipment (50) and the communication network; and/or
the access point (100-1) determining a failure probability of a radio link between the user
equipment (50) and the access point (100-1) and sending the message (204; 304) in
response to the failure probability being above a threshold; and/or
35 the access point (100-1) measuring a quality of a radio link between the user equipment (50)
and the access point (100-1) and sending the message (204; 304) in response to the quality
of the radio link being below a threshold; and/or

the access point (100-1) measuring a velocity of the user equipment (50) and sending the message (204; 304) in response to the velocity being above a threshold; and/or the access point (100-1) sending the message (204; 304) in response to determining that a further plurality of target access points, which was previously indicated to the user equipment (50), is no longer valid.

5. The method according to any one of the preceding claims, comprising:

the access point (100-1) sending, to each of the plurality of target access points (100-2; 100-3), information related to the user equipment (50) for preparing this target access point (100-2, 100-3) for a potential switching of the connection.

6. The method according to any one of the preceding claims, comprising:

after switching of the connection to one or more of the plurality of target access points (100-2), the access point (100-1) receiving a request (308) from this target access point (100-2); and in response to the request (308), the access point sending information related to the user equipment (50) to this target access point (100-2).

7. A method of managing a connection between a user equipment (50) and a wireless communication network, the method comprising:

a user equipment (50) receiving a message (204; 304) from an access point (100-1) of the communication network, the access point (100-1) currently serving the connection of the user equipment (50) to the wireless communication network and the message (204; 304) indicating a plurality of target access points (100-2, 100-3) and authorizing the user equipment (50) to autonomously switch the connection to one or more of the indicated target access points (100-2, 100-3);

the user equipment (50) detecting a triggering event; and

in response to detecting the triggering event, the user equipment (50) switching the connection to one or more of the target access points (100-2, 100-3), wherein the message (204; 304) further indicates a condition to be evaluated by the user equipment (50) for triggering the switching to said one or more of the target access points (100-2, 100-3), and

wherein the triggering event is based on said indicated condition.

8. The method according to claim 7,

wherein the triggering event is based on a quality of a radio link between the user equipment (50) and said one or more of the target access points (100-2, 100-3), as measured by the user equipment (50).

5 9. The method according to claim 7 or 8,
wherein the triggering event is based on a quality of a radio link between the user equipment (50) and the access point (100-1), as measured by the user equipment (50).

10 10. The method according to any one of claims 7 to 9,
wherein the triggering event comprises an interruption of the connection.

15 11. The method according to any one of claims 7 to 10,
wherein the message (204; 304) indicates multiple conditions to be evaluated by the user equipment (50) for triggering the switching to said one or more of the target access points (100-2, 100-3), and
wherein the triggering event is based on at least one of said indicated multiple conditions.

20 12. The method according to any one of claims 7 to 11,
wherein the message (204; 304) further indicates, for each of the indicated target access points (100-2, 100-3), information to be used by the user equipment (50) for connecting to this target access point (100-2, 100-3), and the user equipment (50) performs the switching to said one or more of the target access points (100-2, 100-3) on the basis of the indicated information; and/or
wherein the message further indicates a priority order of the target access points (100-2, 100-3) and the user equipment (50) determines said one or more of the target access points (100-2, 100-3) depending on the indicated priority order.

30 13. The method according to any one of claims 7 to 12, comprising:
the user equipment (50) receiving the message (204; 304) in response to establishing the connection between the user equipment (50) and the communication network.

35 14. The method according to any one of claims 7 to 13, comprising:
after switching to said one or more of the target access points (100-2), the user equipment (50) indicating information related to the access point to this target access point (100-2).

15. An access point (100-1; 100-2; 100-3) for a wireless communication network, the access point (100-1; 100-2; 100-3) comprising:

a radio interface (610) for serving a connection to a user equipment (50); and

at least one processor (650), the at least one processor (650) being configured to:

- 5 - determine a plurality of target access points (100-2, 100-3), and
- send a message (204; 304) to the user equipment (50), the message (204; 304) indicating said plurality of target access points (100-2, 100-3) and authorizing the user equipment (50) to autonomously switch the connection to one or more of the target access points (100-2, 100-3) wherein the message (204; 304) further indicates a condition to be evaluated by the
- 10 user equipment (50) for triggering the switching to said one or more of the target access points (100-2, 100-3).

16. The access point (100-1; 100-2; 100-3) according to claim 15,

- 15 wherein the at least one processor (650) is configured to perform the steps of a method according to any one of claims 1 to 11.

17. A user equipment (50), comprising:

- 20 a radio interface (710) for establishing a connection to a wireless communication network; and

at least one processor (750), the at least one processor (750) being configured to:

- receive a message (204; 304) from an access point (100-1) of the communication network, the access point (100-1) currently serving the connection of the user equipment (50) to the
- 25 wireless communication network and the message (204; 304) indicating a plurality of target access points (100-2, 100-3) and authorizing the user equipment (50) to autonomously switch the connection to one or more of the indicated target access points (100-2, 100-3);
- detect a triggering event; and
- in response to detecting the triggering event, switch the connection to one or more of the
- 30 target access points (100-2, 100-3) wherein the message (204; 304) further indicates a condition to be evaluated by the user equipment (50) for triggering the switching to said one or more of the target access points (100-2, 100-3), and
- wherein the triggering event is based on said indicated condition.

35 18. The user equipment (50) according to claim 17,

wherein the at least one processor (750) is configured to perform the steps of a method according to any one of claims 7 to 14.

19. A computer program or computer program product comprising program code to be executed by at least one processor (650) of an access point (100-1, 100-2, 100-3) of a wireless communication network, wherein execution of the program code causes the at least
5 one processor (650) to perform steps of a method according to any one of claims 1 to 6.

20. A computer program or computer program product comprising program code to be executed by at least one processor (750) of a user equipment (50), wherein execution of the
10 program code causes the at least one processor (750) to perform steps of a method according to any one of claims 7 to 14.