

Claims

1. A method for the effective identification of
neighbouring nodes in a mobile ad-hoc network, wherein
5 each node transmits within a given time raster a
message signalling its presence which is acknowledged
through the transmission of an acknowledgement message
by at least one node which receives the message
signalling the presence for the first time,
10 wherein the time raster in which the message
signalling a presence is transmitted is varied by a
node which is disposed outside an ad-hoc network, and
wherein a secured and/or encrypted symmetrical data
transmission between at least two nodes disposed
15 within an ad-hoc network is implemented as soon as one
of the two nodes receives a further acknowledgement
message to its transmitted acknowledgement message
from the respectively other node.
- 20 2. The method according to claim 1,
wherein the time raster in which the message
signalling its presence is transmitted from a node
disposed outside an ad-hoc network directly after a
start-up of the node disposed outside an ad-hoc
25 network, is adjusted to a comparatively high value,
which is successively reduced until a previously
determined minimal-value time raster is reached.
3. The method according to claim 1 or 2,
30 wherein directly after it has identified that it is
now disposed outside an ad-hoc network, a node
transmits the message signalling its presence in a
time raster with a comparatively high value, which is
successively reduced until a previously determined
35 minimal-value time raster is reached.

4. The method according to any one of claims 1 to 3,
wherein the acknowledgement message is transmitted
directly after the reception of the message signalling
the presence.
5. The method according to claim 4,
wherein the acknowledgement message is transmitted
immediately after the reception of the message
signalling a presence.
6. The method according to claim 4,
wherein the acknowledgement message is transmitted
after the reception of the message signalling a
presence with the addition of a statistical delay time
associated in each case with the respective node.
7. The method according to any one of claims 1 to 6,
wherein a node disposed outside an ad-hoc network
transmits a message signalling a presence within a
previously specified, constant time raster from the
time of the reception of the acknowledgement message.
8. The message according to any one of claims 1 to 6,
wherein a node disposed outside an ad-hoc network
transmits a message signalling a presence within a
previously specified, constant time raster from the
time of the reception of a message signalling a
presence of another node, which it acknowledges with
an acknowledgement signal.
9. The method according to any one of claims 1 to 8,
wherein a node is integrated in an ad-hoc network with
at least one further node as soon as one of the two
nodes receives the acknowledgement message to its

transmitted message signalling a presence from the
respectively other node.

10. The method according to any one of claims 1 to 9,
5 wherein a node is disposed within an ad-hoc network so
long as it receives a further message signalling a
presence of a node of the ad-hoc network within a
previously specified time interval since the last
reception time of a message signalling a presence of a
10 node of the ad-hoc network.
11. The method according to any one of claims 1 to 10,
wherein the identification of neighbouring nodes in a
mobile ad-hoc network precedes a routing-planning,
15 preferably a routing-planning according to the
Optimised-Link-State-Routing protocol.
12. A mobile ad-hoc network with at least one node
disposed inside or outside the mobile ad-hoc network
20 and transmitting a message signalling its presence
within a given time raster and at least one node
disposed inside or outside the mobile ad-hoc network
receiving the message signalling the presence for the
first time and acknowledging the latter through
25 transmission of an acknowledgement message,
wherein the time raster for the transmission of the
message signalling a presence is varied in the case of
a node disposed outside the ad-hoc network, and
wherein a secured and/or encrypted symmetrical data
30 transmission between at least two nodes disposed
within an ad-hoc network is implemented as soon as on
receiving a further acknowledgement message by one of
the two nodes of its transmitted acknowledgement
message from the respectively other node.