CLAIMS

1. A communication method between a first and second distinct ad hoc network ~~(51, 52)~~ with radio communication nodes ~~(2)~~, said networks being connected by a gateway system ~~(35)~~, the gateway system comprising first telecommunications means ~~(L1)~~ with at least one first node ~~(20)~~ of the first network and second telecommunications means ~~(L2)~~ with a second node ~~(30)~~ of the second network, the nodes being equipped with radio communication means ~~(3)~~ and geographic location means ~~(6)~~,

the method being characterized in that it comprises the following steps:

a/ collecting first, second, respectively, geographical location information for the first ~~(51)~~, second ~~(52)~~, respectively, network nodes, said information being determined and transmitted by said nodes;

b/ deducing a first ~~(Z1)~~, second ~~(Z2)~~, respectively, geographical coverage area of the first, second, respectively, network as a function of first, second, respectively, geographical location information;

c/ determining an intersection zone ~~(Z)~~ of the first and second geographical coverage areas;

d/ identifying, as a function of the first, second, respectively, collected location information, nodes of the first, second network, respectively, located inside said intersection zone;

e/ sending said identified nodes of the first network, from the gateway system and by means of said first node, data indicating the collected geographical locations of the identified nodes of the second network.

2. The communication <u>method</u>~~means~~ according to claim 1, also comprising the following step:

f/ sending said identified nodes of the second network, from the gateway system~~(35)~~, by means of said second node ~~(30)~~, data indicating the collected geographical locations of the identified nodes of the first network;

3. The communication method according to claim 1 or 2, wherein the first network ~~(51)~~ and/or the second network is an ad hoc radio communication network.

4. The communication method according to claim 3, wherein some of the steps a/ to d/, or all of the steps a/ to d/, are carried out by ad hoc radio communication nodes.

5. The communication method according to any one of claims 1 to 4, wherein some of the steps a/ to d/, or all of the steps a/ to d/, are carried out by the gateway system ~~(35)~~.

6. The communication method according to any one of the preceding claims, wherein the data indicating the collected geographical locations of the identified nodes is accompanied by identification data for said identified nodes and/or a time indication relative to the location.

7. The communication method according to any one of the preceding claims, wherein at least steps a/ to d/ are regularly reiterated following the transmission by the nodes of updated location information.

8. The communication method according to any one of the preceding claims, wherein if in step c/ it is determined that the first ~~(Z1)~~ and second ~~(Z2)~~ geographical coverage areas do not include intersection zones, a distance between the first and second geographical coverage areas is computed, and an update period for the geographical location of the nodes is determined as a function at least of said computed distance.

9. A processing module ~~(5)~~ adapted to operate in a communication system including a first network ~~(51)~~ of radio communication nodes connected by a gateway system ~~(35)~~ to a second, distinct network of radio communication nodes, the gateway system comprising first telecommunications means ~~(L1)~~ with at least one first node ~~(20)~~ of the first network and second telecommunications means ~~(L2)~~ with a second node ~~(30)~~ of the second network, the nodes being equipped with radio communication means ~~(3)~~ and geographical location means ~~(6)~~,
the processing module being characterized in that it is adapted to collect first geographical location information for the nodes ~~(20-24)~~ of the first network, said information being determined and transmitted by said nodes, and to deduce therefrom a first geographical coverage area ~~(Z1)~~ of said first network;
the processing module is also adapted to determine an intersection zone ~~(Z)~~ between said first geographical coverage area and a second coverage area of the second network and to identify, as a function of the first collected location information, nodes of the first network located inside said intersection zone;

the processing module being adapted to receive data coming from the gateway system ~~(35)~~ and indicating geographical locations at least of nodes of the second network that are identified as located in the intersection zone and to transmit to said identified nodes of the first network, by means of said first node, said data indicating the collected geographical locations of the identified nodes of the second network.

10. The processing module ~~(5)~~ according to claim 9, also adapted to form a message comprising data defining the first geographical coverage area~~intersection zone (Z)~~ and to transmit said message by means of the gateway system ~~(35)~~.

11. The processing module ~~(5)~~ according to claim 9 or 10, also adapted to form at least one message comprising data indicating geographical locations of the nodes of the first network ~~(51)~~ located within said intersection zone ~~(Z)~~ and to transmit said message by means of the gateway system ~~(35)~~.

12. The processing module ~~(5)~~ according to claim 11, adapted to include identification data for said identified nodes and/or a time indication relative to the location in the message.

13. The processing module ~~(5)~~ according to any one of claims 9 to 12, adapted to reiterate the collection of the geographical location information for the nodes of the first network ~~(51)~~, the deduction of a first geographical coverage zone ~~(Z1)~~ of the first network, the determination of an intersection zone ~~(Z)~~ and the identification of nodes present in the intersection zone, regularly, following the transmission of updated location information by the nodes.

14. The processing module ~~(5)~~ according to any one of claims 9 to 13, adapted so as, when the first ~~(Z1)~~ and second ~~(Z2)~~ geographical coverage zones do not include intersection zones, to compute a distance between the first and second geographical coverage zone, and determine an update period for the geographical location of the nodes as a function of at least said computed distance.

15. A transceiver station ~~(2)~~ adapted to form a node of the ad hoc network and including a processing module ~~(5)~~ according to one of claims 9 to 14.

16. A computer program intended for a radiofrequency transceiver station ~~(2)~~, adapted to form a node of the network, said program comprising instructions for updating the following steps when the program is run by the processing means of said station:

- collecting first geographical location information of the nodes of a first network ~~(51)~~ to which the station belongs, said information being determined and transmitted by said nodes, and deducing a first geographical coverage area ~~(Z1)~~ of the first network therefrom;
- determining an intersection zone ~~(Z)~~ between said first geographical coverage area and a second coverage area ~~(Z2)~~ of a second network ~~(52)~~ distinct from the first network and identifying, as a function of the first collected location information, nodes of the first network located inside said intersection zone;
- receiving data indicating geographical locations at least of nodes of the second network identified as located in the intersection zone and transmitting, to said identified nodes of the first network, said data indicating the collected geographical locations of the identified nodes of the second network.