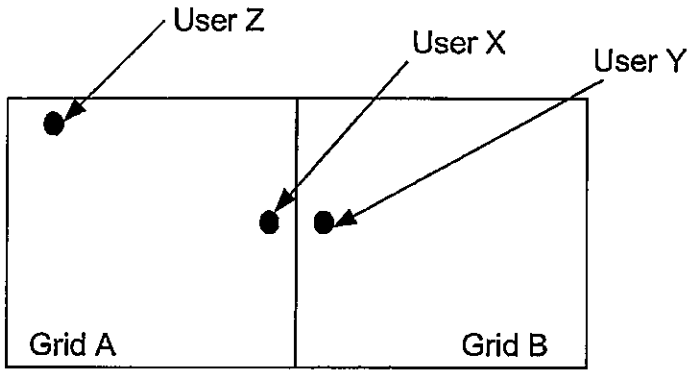
User Z
User X
User Y
Grid A
Grid B

Fig. 1

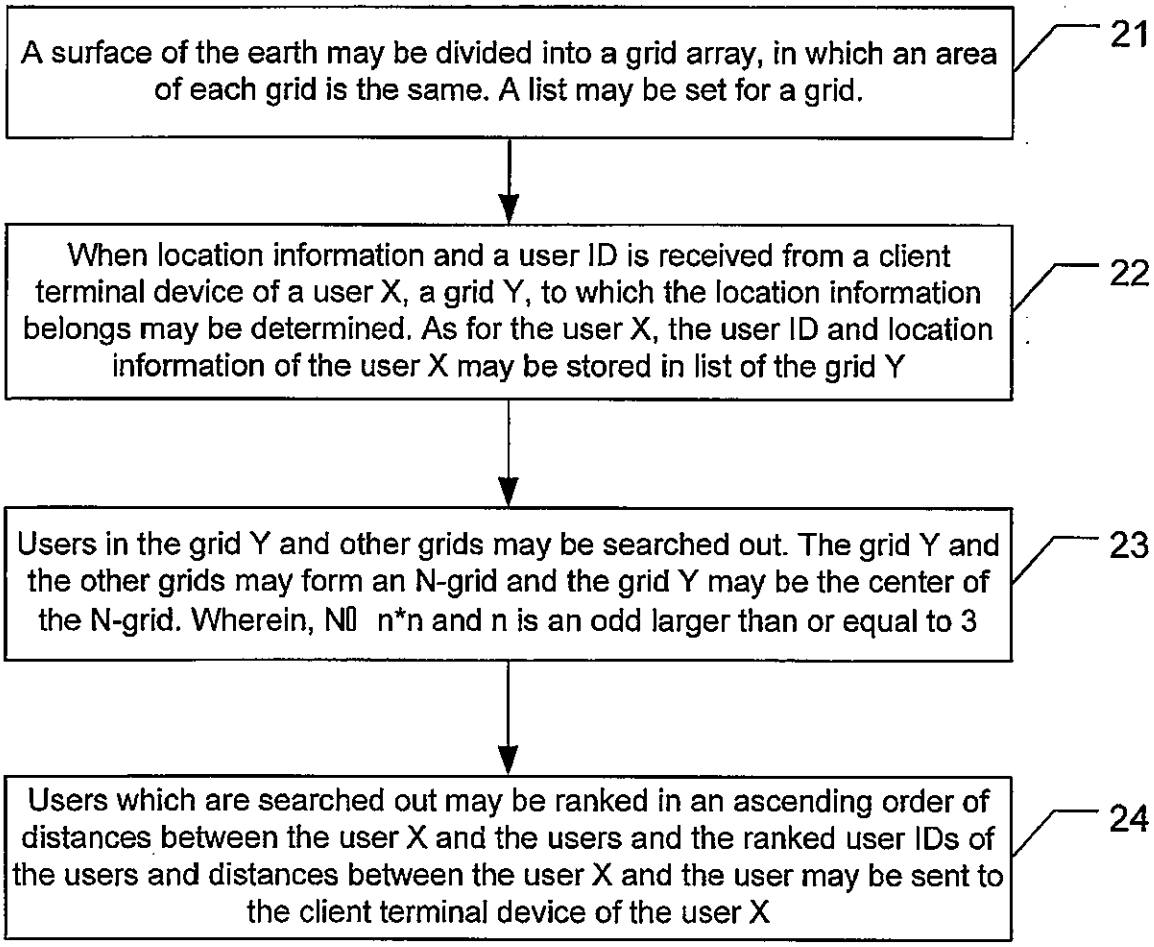
A surface of the earth may be divided into a grid array, in which an area of each grid is the same. A list may be set for a grid.
21
When location information and a user ID is received from a client terminal device of a user X, a grid Y, to which the location information belongs may be determined. As for the user X, the user ID and location information of the user X may be stored in list of the grid Y
22
Users in the grid Y and other grids may be searched out. The grid Y and the other grids may form an N-grid and the grid Y may be the center of the N-grid. Wherein, N n*n and n is an odd larger than or equal to 3
23
Users which are searched out may be ranked in an ascending order of distances between the user X and the users and the ranked user IDs of the users and distances between the user X and the user may be sent to the client terminal device of the user X
24

Fig. 2

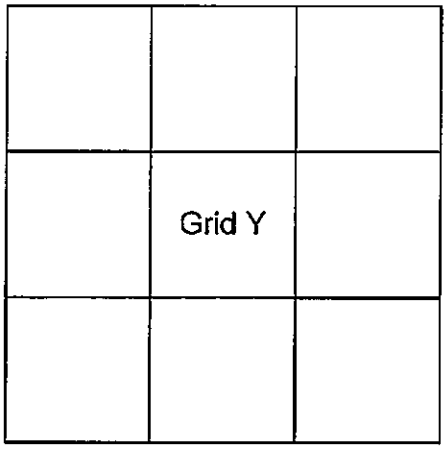
Grid Y

Fig. 3

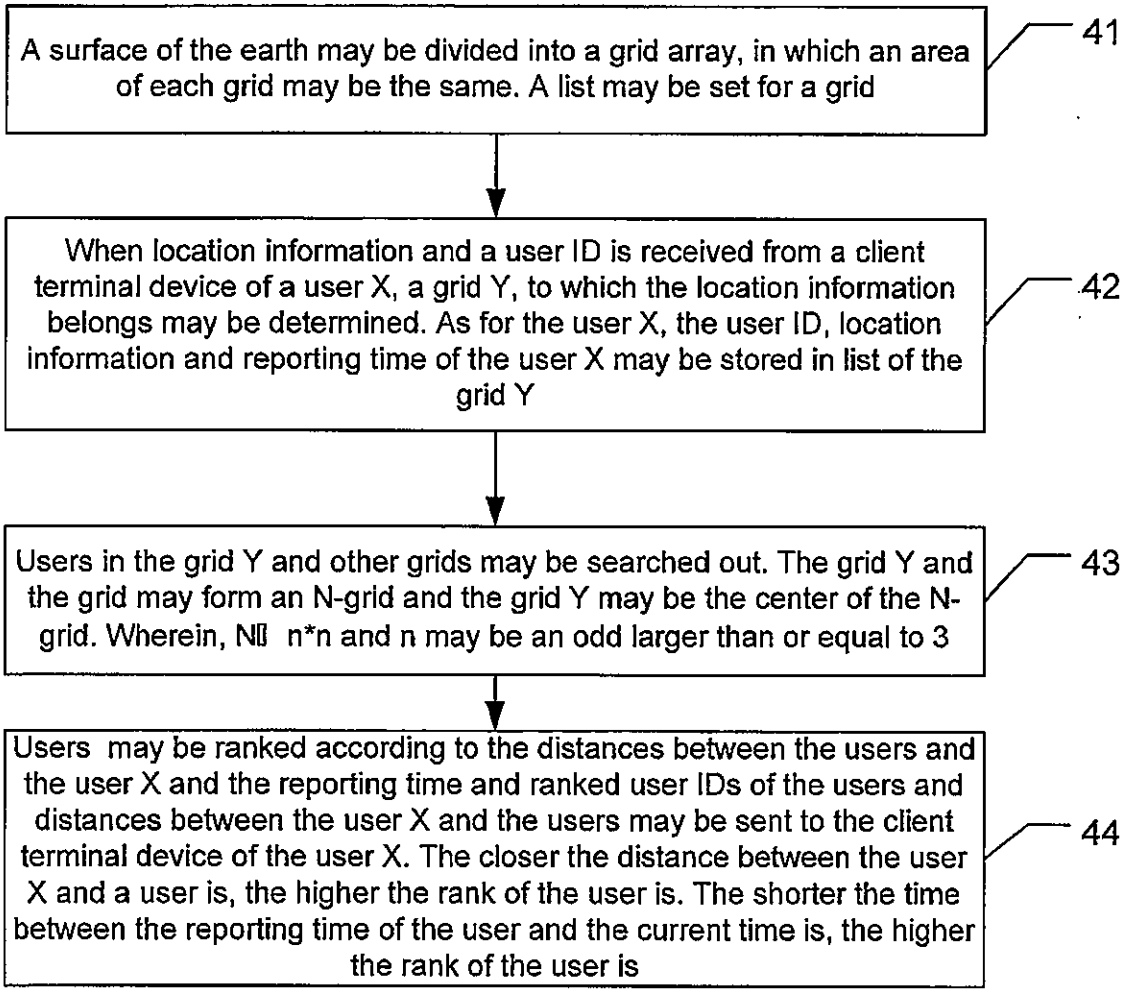
A surface of the earth may be divided into a grid array, in which an area of each grid may be the same. A list may be set for a grid
41
When location information and a user ID is received from a client terminal device of a user X, a grid Y, to which the location information belongs may be determined. As for the user X, the user ID, location information and reporting time of the user X may be stored in list of the grid Y
42
Users in the grid Y and other grids may be searched out. The grid Y and the grid may form an N-grid and the grid Y may be the center of the N-grid. Wherein, N n*n and n may be an odd larger than or equal to 3
43
Users may be ranked according to the distances between the users and the user X and the reporting time and ranked user IDs of the users and distances between the user X and the users may be sent to the client terminal device of the user X. The closer the distance between the user X and a user is, the higher the rank of the user is. The shorter the time between the reporting time of the user and the current time is, the higher the rank of the user is
44

Fig. 4

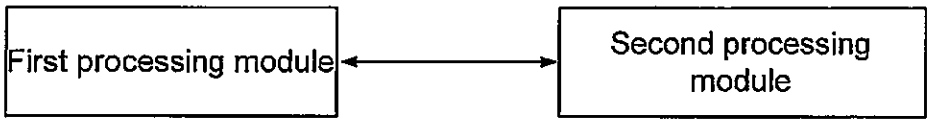

Fig. 5