

CLAIMS

1. A method, comprising:
 - obtaining, by a mobile device, fence information associated with a plurality of geo-fences from a local storage in the mobile device;
 - determining whether to perform geo-fence determination; and
 - in the event that geo-fence determination is determined to be performed,
 - sequentially determining whether the mobile device is currently located within one of the plurality of geo-fences, wherein a sequence according to which the sequential determination is performed is based at least in part on distances between corresponding ones of at least two of the plurality of geo-fences and a current location of the mobile device; and
 - determining, based at least in part on a location of a geo-fence among the at least two of the plurality of geo-fences that is currently nearest to the mobile device, a determination time for a next geo-fence determination.
2. The method of claim 1, further comprising:
 - obtaining the current location of the mobile device;
 - sending the current location of the mobile device to a server; and
 - receiving, from the server, fence information associated with one or more of the plurality of geo-fences, wherein the fence information sent by the server is selected based at least in part on the current location of the mobile device.
3. The method of claim 1, further comprising:
 - in the event that the mobile device is located within one of the plurality of geo-fences, receiving preset information related to the one of the plurality of geo-fences, wherein the preset information is received by a server.
4. The method of claim 3, further comprising:
 - determining whether the mobile device is located within one of the plurality of geo-fences.
5. The method of claim 3, wherein the preset information comprises information associated with one or more of a business within the geo-fence or a service available within the geo-fence.

6. The method of claim 5, wherein the preset information includes sale information associated with the business within the geo-fence.
7. The method claim 1, wherein the determining of the determination time for the next geo-fence determination comprises:
 - computing respective initial distances between two or more of the plurality of geo-fences and the current location of the mobile device;
 - selecting a smallest value from among the computed initial distances;
 - computing a quotient result based at least in part on dividing the selected smallest value by a preset speed threshold value; and
 - determining a target determination time based at least in part on the computed quotient result.
8. The method of claim 1, wherein determining whether to perform geo-fence determination comprises:
 - retrieving a preset migration threshold value of the mobile device; and
 - determining whether an amount of migration of the mobile device is in excess of the preset migration threshold value.
9. The method of claim 1, wherein determining whether to perform geo-fence determination comprises:
 - retrieving a real-time determination time of the geo-fence determination computed by the mobile device; and
 - determining whether a time difference between a current time and a time at which geo-fence determination was most recently performed is equal to or greater than the real-time determination time.
10. A mobile device, comprising:
 - at least one processor configured to:
 - obtain fence information associated with a plurality of geo-fences from a local storage in the mobile device;
 - determine whether to perform geo-fence determination; and
 - in the event that geo-fence determination is determined to be performed, sequentially determine whether the mobile device is currently located within one of the plurality of geo-fences, wherein a sequence according to which the sequential determination is performed is based at least in part on

distances between corresponding ones of at least two of the plurality of geo-fences and a current location of the mobile device; and

determine, based at least in part on a location of a geo-fence among the at least two of the plurality of geo-fences that is currently nearest to the mobile device, a determination time for a next geo-fence determination; and

a memory coupled to the at least one processor and configured to provide the at least one processor with instructions.

11. The mobile device of claim 10, wherein the at least one processor is further configured to:

obtain the current location of the mobile device;

send the current location of the mobile device to a server; and

receive, from the server, fence information associated with one or more of the plurality of geo-fences, wherein the fence information sent by the server is selected based at least in part on the current location of the mobile device.

12. The mobile device of claim 10, wherein the at least one processor is further configured to:

in the event that the mobile device is located within one of the plurality of geo-fences, receive preset information related to the one of the plurality of geo-fences, wherein the preset information is received by a server.

13. The mobile device of claim 12, wherein the at least one processor is further configured to:

determine whether the mobile device is located within one of the plurality of geo-fences.

14. The mobile device of claim 12, wherein the preset information comprises information associated with one or more of a business within the geo-fence or a service available within the geo-fence.

15. The mobile device of claim 14, wherein the preset information includes sale information associated with the business within the geo-fence.

16. The mobile device of claim 10, wherein the at least one processor is further configured to determine the determination time for the next geo-fence determination by:

computing respective initial distances between two or more of the plurality of geo-fences and the current location of the mobile device;

selecting a smallest value from among the computed initial distances;
computing a quotient result based at least in part on dividing the selected smallest value by a preset speed threshold value; and
determining a target determination time based at least in part on the computed quotient result.

17. The mobile device of claim 10, wherein the at least one processor is further configured to determine whether to perform geo-fence determination by:

retrieving a preset migration threshold value of the mobile device; and
determining whether an amount of migration of the mobile device is in excess of the preset migration threshold value.

18. The mobile device of claim 10, wherein the at least one processor is further configured to determine whether to perform geo-fence determination by:

retrieving a real-time determination time of the geo-fence determination computed by the mobile device; and

determining whether a time difference between a current time and a time at which geo-fence determination was most recently performed is equal to or greater than the real-time determination time.

19. A non-transitory computer readable storage medium having recorded thereon computer program comprising computer instructions for:

obtaining, by a mobile device, fence information associated with a plurality of geo-fences from a local storage in the mobile device;

determining whether to perform geo-fence determination; and

in the event that geo-fence determination is determined to be performed,

sequentially determining whether the mobile device is currently located within one of the plurality of geo-fences, wherein a sequence according to which the sequential determination is performed is based at least in part on distances between corresponding ones of at least two of the plurality of geo-fences and a current location of the mobile device; and

determining, based at least in part on a location of a geo-fence among the at least two of the plurality of geo-fences that is currently nearest to the mobile device, a determination time for a next geo-fence determination.

20. The method of claim 1, wherein the fence information comprises information pertaining to geographic information associated with the plurality of geo-fences.