CLAIMS

1. A system for route computation, the system comprising:

an application interface configured to receive a routing request, the routing request comprising an origin location and a destination location; and

a processing module configured to

identify an origin link near the origin location, and to identify a destination link near the destination location;

retrieve one or more pre-determined lists of unrouteable links from a database;

compare the origin link and destination link with one or more lists of unrouteable links; and

perform the route computation if the origin link and the destination link are not within the one or more lists of unrouteable links,

wherein the processing module is configured to generate the pre-determined one or more lists of unrouteable links by

obtaining geospatial data from the database, said geospatial data comprising a plurality of geospatial links;

selecting a start link from the plurality of geospatial links;

for each one of the other geospatial links:

determining if a possible path is routeable from the start link to the other geospatial link; and

adding the other geospatial link to the one or more pre-determined list, if there are no possible paths from the start link to the other geospatial link.

2. The system of claim 1, wherein the identified origin link is a link nearest to the origin location, and the identified destination link is a link nearest the destination location.

3. The system as claimed in claim 2, wherein the processing module is further configured to

identify an alternative destination link if the destination link is found within the one or more lists of unrouteable links;

identify an alternative origin link if the origin link is found within the one or more lists of unrouteable links; and

performing the route computation based on the alternative destination link and/or the alternative origin link, if the alternative destination link or alternative origin link is identified.

4. The system as claimed in claim 3 wherein identifying the alternative origin link further comprises:

identifying links near the origin location; and

selecting one of the identified links near the origin location as the alternative origin link, said alternative origin link being the link nearest to the origin location and which is not within the one or more lists of unrouteable links.

5. The system as claimed in claim 3 or 4 wherein identifying the alternative destination link further comprises:

identifying links near the destination location; and

selecting one of the identified links near the destination location as the alternative destination link, said alternative destination link being the link nearest to the destination location and which is not within the one or more lists of unrouteable links.

6. The system as claimed in claims 1 to 5, wherein identifying links near the origin location comprises identifying links within a boundary threshold; and identifying links near the destination location comprises identifying links within the boundary threshold.

7. The system as claimed in claim 1, wherein the selected start link is a link which is near a popular location.

8. The system as claimed in claims 1 or 7, wherein the processing module is configured to select a different start link as the start link, if the processing module

determines that the number of links in the one or more pre-determined list comprises more than 10%, 20%, 30%, 40% or 50% of a total number of geospatial links.

9. The system as claimed in claim 8 wherein the different start link is selected from a link located in an area which is not connected to the start link.

10. The system as claimed in claim 9 wherein the geospatial links are added to the one or more pre-determined lists if there are no possible paths from both the start link and the different start link, to the other geospatial link.

11. The system as claimed in claims 1 and 7 to 10, wherein the generated list is an unrouteable destination list.

12. The system as claimed in claims 1 and 7 to 11, wherein the other geospatial generated list further comprises an unrouteable origin list, and the processing module is further configured to

determine if a possible path is routeable to the start link from the other geospatial link; and

add the other geospatial link to the unrouteable origin list, if there are no possible paths to the start link from the other geospatial link.

13. A method of route computation by a routing system comprising a processing module and a database, the method comprising:

receiving a routing request, the routing request comprising an origin location and a destination location;

identifying an origin link near the origin location, and identifying a destination link near the destination location;

retrieving one or more pre-determined lists of unrouteable links from a database;

comparing the origin link and destination link with one or more lists of unrouteable links; and

performing the route computation if the origin link and the destination link are not within the one or more lists of unrouteable links,

wherein the pre-determined one or more lists of unrouteable links are generated by

obtaining geospatial data from the database, said geospatial data comprising a plurality of geospatial links;

selecting a start link from the plurality of geospatial links;

for each one of the other geospatial links:

determining if a possible path is routeable from the start link to the other geospatial link; and

adding the other geospatial link to the one or more pre-determined list, if there are no possible paths from the start link to the other geospatial link.

14. The method as claimed in claim 13, wherein the identified origin link is a link nearest to the origin location, and the identified destination link is a link nearest the destination location.

15. The method as claimed in claim 14, further comprising

identifying an alternative destination link if the destination link is found within the one or more lists of unrouteable links;

identifying an alternative origin link if the origin link is found within the one or more lists of unrouteable links; and

performing the route computation based on the alternative destination link and/or the alternative origin link, if the alternative destination link and alternative origin link are identified.

16. The method as claimed in claim 15, wherein identifying the alternative origin link further comprises:

identifying links near the origin location; and

selecting one of the identified links near the origin location as the alternative origin link, said alternative origin link being the link nearest to the origin location and which is not within the one or more lists of unrouteable links.

17. The method as claimed in claim 15 or 16 wherein identifying the alternative destination link further comprises:

identifying links near the destination location; and

selecting one of the identified links near the destination location as the alternative destination link, said alternative destination link being the link nearest to the destination location and which is not within the one or more lists of unrouteable links.

18. The method as claimed in claims 13 to 17, wherein identifying links near the origin location comprises identifying links within a boundary threshold; and identifying links near the destination location comprises identifying links within the boundary threshold.

19. The method as claimed in claim 13, wherein selecting a start link comprises selecting a link which is near a popular location.

20. The method as claimed in claims 13 or 19, wherein a different start link is selected as the start link, if the number of links in the one or more pre-determined list comprises more than 10%, 20%, 30%, 40% or 50% of a total number of geospatial links.

21. The method as claimed in claim 20 wherein the different start link is selected from a link located in an area which is not connected to the start link.

22. The method as claimed in claim 21, wherein the geospatial links are added to the one or more pre-determined lists if there are no possible paths from both the start link and the different start link, to the other geospatial link.

23. The method as claimed in claims 13 and 19 to 22, wherein the generated list is an unrouteable destination list.

24. The method as claimed in claims 13 and 19 to 23, wherein the other geospatial generated list further comprises an unrouteable origin list, the method further comprising

for each one of the other geospatial links:

determining if a possible path is routeable to the start link from the other geospatial link; and

adding the other geospatial link to the unrouteable origin list, if there are no possible paths to the start link from the other geospatial link.

25. A non-transitory tangible computer readable storage medium having stored thereon software instructions that, when executed by a computer processor of a system for route computation, cause the computer processor to perform a method of route computation, by executing the steps comprising,

receiving a routing request, the routing request including an origin location and a destination location;

identifying an origin link near the origin location, and identifying a destination link near the destination location;

retrieving one or more pre-determined lists of unrouteable links from a database;

comparing the origin link and destination link with one or more lists of unrouteable links; and

performing the route computation if the origin link and destination link are not within the one or more lists of unrouteable links,

wherein the steps further comprise generating the pre-determined one or more lists of unrouteable links by

obtaining geospatial data from the database, said geospatial data comprising a plurality of geospatial links;

selecting a start link from the plurality of geospatial links;

for each one of the other geospatial links:

determining if a possible path is routeable from the start link to the other geospatial link; and

adding the other geospatial links to the one or more pre-determined list, if there are no possible paths from the start link to the other geospatial link.