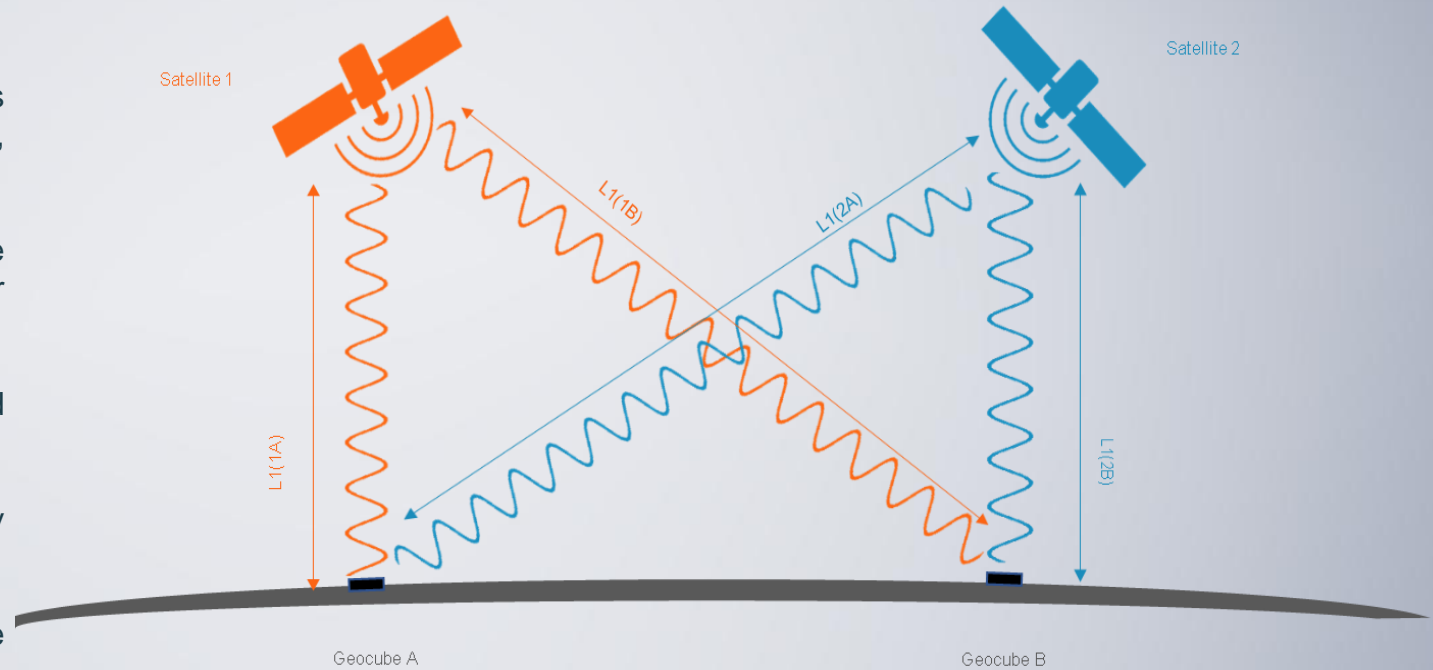


## Operating principle

- The exact position of GPS satellites being available, each Geocubes calculates its precise distance with every GPS satellite (L1(1A), L1(1B), etc.)
- Computation of differences between the distance of Geocubes to the various satellites (L1(1A)-LA(1B), etc.) enhances the precision of their position.
- One Geocube serve as reference and placed on a point considered motionless. Position of all other Geocubes will be relative to this spot.
- The relative position thus calculated is refreshed with a periodicity determined by use cases (from a few seconds to one minute).
- First precise position of a Geocube is obtained approximately one hour after calculations are initiated.



## Architecture of a Geocube network

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- Deployment of a Geocube system is entirely self-operating: each sensors explores its nearby environment and connects to the Geoport which transfers information to server and then to the User interface.
- A Geocube can be added or removed without interfering with the rest of the system.
- A Geoport transmits data to the server through 3G or Ethernet link.
- Calculation algorithm operates on distant server and results are displayed on the User Interface and directly downloadable.
- A Geoport can also be used as a communication point for a sub-system in case of spread out networks.

