# Location Based Service (LBS)

4N TeleSoft

Smart Revenue Solutions For Telecom

# 4N TeleSoft Location Based Service

**The Location Based Services** (LBS) is an application server that Mobile operators can use for gathering location/positions (Latitude and Longitude) of mobile phones. Using this position information LBS can provide the actual address within specified radius of Map and deliver the same on to mobile. 4ntelesoft LBS solution offers a transparent way of presenting the location based services to the mobile subscribers. It provides different modes to the subscribers to get the location based queries e.g. SMS, WAP, MMS.

**4ntelesoft** LBS interfaces with premium GIS servers around the world to obtain the GIS information like location address, telephone number, map, driving directions etc. The information obtained from the GIS server is presented to the mobile subscriber based on the capabilities of the subscriber mobile device.

Following are the examples of few LBS application services that would add value to operator's portfolio offerings:

– Find Me
– Find my Buddy
– Find Point of Interest (POI) eg.
  *Nearest ATM
  *Nearest Restaurant
  *Nearest Hospital
  *Nearest Bank
  *Location Of Vehicle
  *Nearest Pharmacy
– Find driving directions from here to the POI

## Commercial Grade Platform

LBS server is a carrier grade platform, which has the capability to handle large subscriber base and has been commercially deployed.

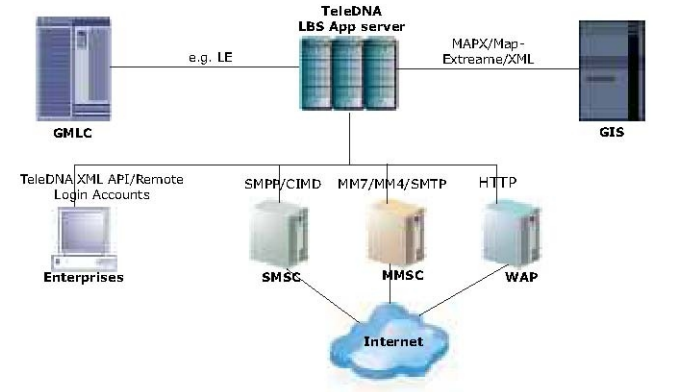
## Deployable in GSM/ GPRS/CDMA Networks

LBS server has the capability to interact with a regular GSM-CSD/CDMA environment and can seamlessly work in GPRS or CDMA2000 1X networks.

## Better Price to Performance Ratio

LBS is built on standard Intel servers with proven carrier grade Linux OS. Customization of innovative location based application services provides competitive edge to the operator offering higher Revenue.

### Network Overview




The above picture depicts LBS architecture and interfacing capabilities to various application servers.

LBS server in above example is interfaced with GMLC that support standard LE interface and other one is with GIS (General Interface System) that provides actual Map and the addresses of the locations.

# 4N TeleSoft Location Based Service

Typically 4ntelesoft's LBS server is connected to operator's equipment with following interfaces:

1. SMSC through SMPP or CIMD protocol.
2. MMSC through Standard MM7/MM4/SMTP interface
3. To WAP through standard HTTP interface

4ntelesoft offers an API that would be easily used by the enterprises to develop their own front end GUI and connect to LBS server.

## Key Features

### Scalability

LBS is designed to handle the capacity as low as 5 messages/sec to 200 messages per seconds.

### Availability

4ntelesoft's high availability layer with redundancy and isolated fault zones provides the much needed 4 Nines availability for the platform. High availability software layer also supports minimum downtime software upgrade strategies.

### Interoperability and Integration

The flexible architecture and standard IP based API allows smooth integration and interoperability with third party GIS providers, MMSC, SMSC, WAP Gateways and Billing Servers.

### Standard Billing and O&M Interface

LBS provides a standard IP based billing interface forthird party billing server to collect billing records (CDRs) and produce accounting and statistical reports. A standard SNMP based interface enables easy integration with billing engine.

### Security and Dispatch Support

Necessary filtering and tracking is built in the system to avoid attacks from anonymous sources.

### Standards Compliance

The LBS complies with 3GPP standards.

### Platform Support

The LBS is built on high density, highly available and highly scalable Linux OS with Intel Based Servers.

### Standard Features Support

LBS supports standard functional features like track the fleets, find self, find point of interest (PoI), Maps clips, driving directions, landmark information etc.

**Please contact us by sending an email to sales@4ntelesoft.in**