

# An integrated LBS Platform for Vehicle Infotainment, Mobile and Web

**Harish Shanthi Kumar**

Director of Engineering  
Hetrogenous Inc.

# Company



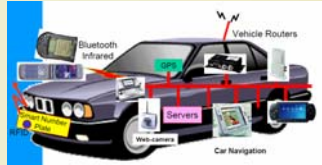
Hetrogenous is a top Marketer of wireless telecom data solutions by providing Consulting and Technology services committed to delivering end to end solutions of value and ROI to its clients across various business verticals.

Hetrogenous is headquartered in Los Angeles, USA, with offices in India and Mexico. We serve markets in the North/South America, Asia and the Middle East.

Our dedicated team of experts offer our clients the experience of extended office, by effectively balancing local presence, regional expertise, and global resources to deliver the very best.

- Technology
  - Technical Consultancy in the areas of Mobile Devices, Wireless Networks, Sensors, Enterprise Applications, VAS
  - Software Development, maintenance and integration services
  - Service Provider Infrastructure for High Availability and Scalability
  
- Strategic - Sales and Marketing
  - Strategic Marketing, market segmentation and Service Creation and Bundling of Packaged Solutions
  - Channels, Dealership and Rep Network Globally

# Overview



**Hetrogenous  
Telematics  
Platform**

**GPS Gyro Accel**

**OBD-II Sensors Health**

**Video Audio Image**



App Server



LBS Platform



Map Server



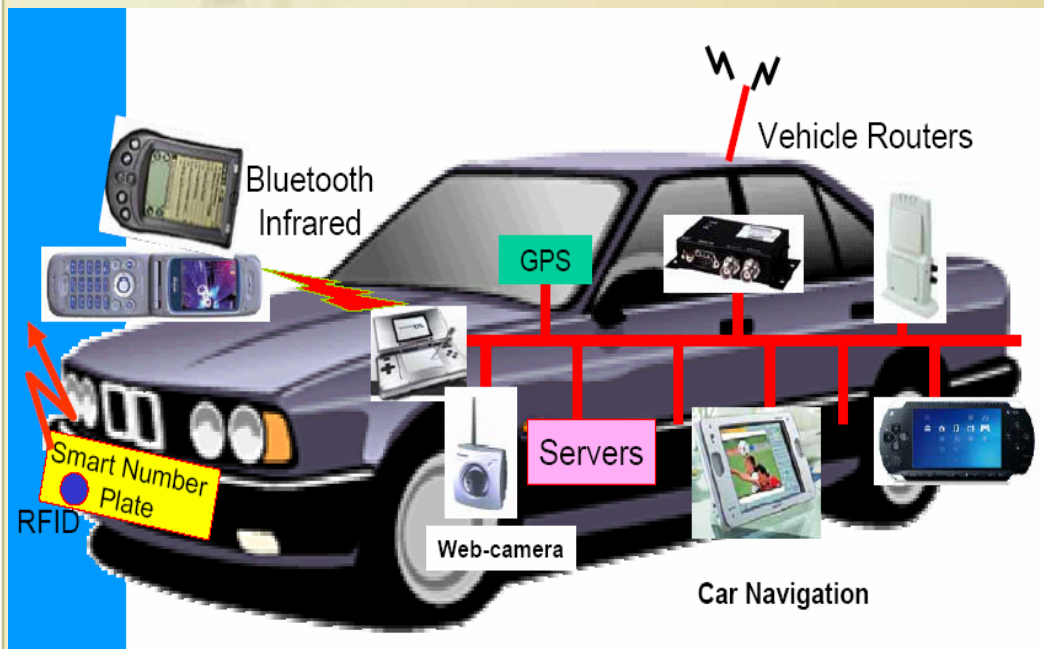
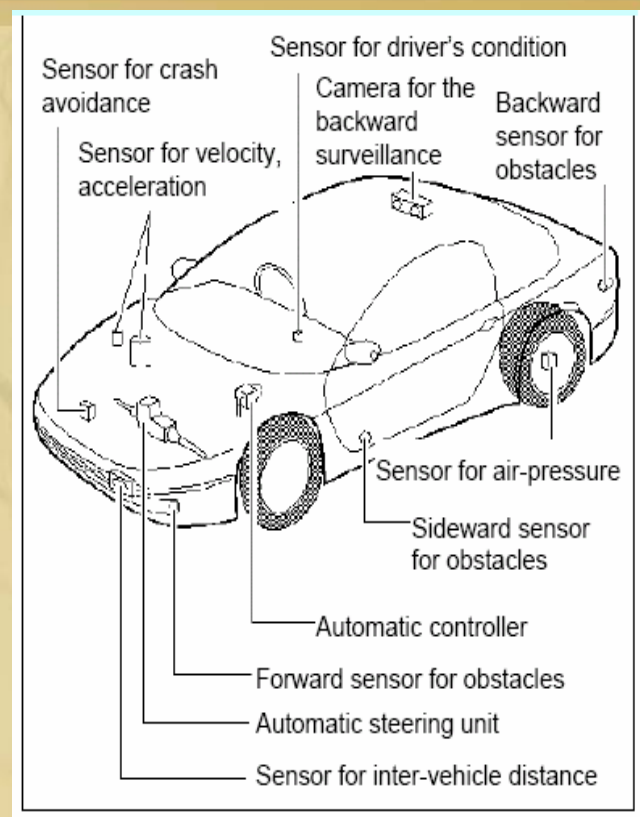
- Built on Open Standards
- Highly Scalable Grid Computing Architecture.
- Every asset is a user in the system
- Common interface specification format for data exchange to and from server. HTTP APIs with XML and JSON data formats.
- APIs for 3<sup>rd</sup> party application developers
- Interfaces existing social networking portals using Open Social Standards.

## Platform Highlights

- Interfaces to existing popular services like Flickr and YouTube.
- Built in Social networking engine.
- Easily extensible with new meta data.  
Existing support for Audio, Video, Images, Live GPS tracks, Vehicle Sensor and OBD-II interfaces, Live Position Update

# Location Device – In Vehicle

## Sensing Application in next generation Intelligent Transport Networks



- Share location of the vehicle
- Share Vehicle OBD-II and other sensor data in real time.
- Record/Upload/Playback Tracks along with way points.
- Interfaces with popular front ends like Roadrunner.
- Share on-board camera video/still image live to the server.
- Capture and share on-board speech from vehicle.

- Get dynamic POI content while on move.
- Sense your social elements as you drive.
- Get Live Traffic and Weather reports.
- Get user content information from the social server for a POI.  
(audio/video/image)
- Touch Screen interface and speech recognition interface.

- Geo tagging image/video and audio. Publish to server.
- Record/Upload/Playbacks tracks.
- Integration with phone address book with location as extended presence information.
- Get community data for a POI (text,image,audio and video)
- Sense buddies and POIs

- Read only manual mode for phones without GPS.
- Portable application architecture with reference clients available for most popular smart phones.
- TTS Enabled operation.

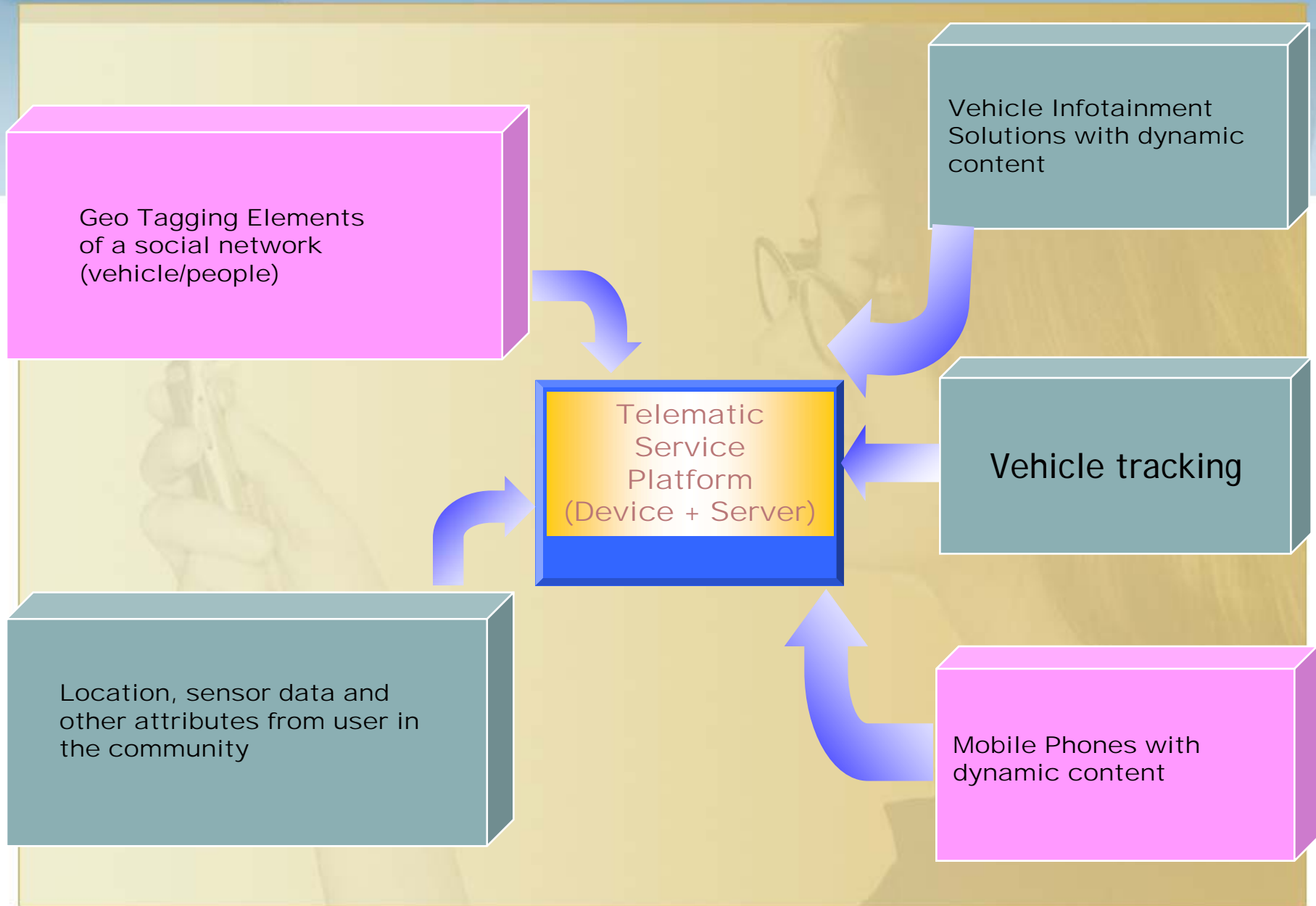
- Vision to impact cultural, adventure and off beat tourism by building a community of Routes
- Route is a track data with user defined way points. Way point data contain multimedia information.
- Export tracks to popular track formats
- Online and Offline mode of operation.
- Find other users on the route at an given instant. Exchange and collabrate.
- Route tagging and tag based search for routes.

- Vision to impact cultural, adventure and off beat tourism by building a community of Routes
- Route is a track data with user defined way points. Way point data contain multimedia information.
- Export tracks to popular track formats
- Online and Offline mode of operation.
- Find other users on the route at an given instant. Exchange and collaborate.
- Route tagging and tag based search for routes.

- Bio-diversity hotspot conservation initiative.
- Geo-tagging species by niche community of photographers, research scientists and enthusiasts alike.
- Collect geo distribution of species over time.
- Statistical reports of seasonal distribution, migratory pattern

- Integration with camera trap data.
- Build an encyclopedia of species in the given hotspot with geo data, image, video, species call recordings etc.

# Coming of Age





**THANK YOU**