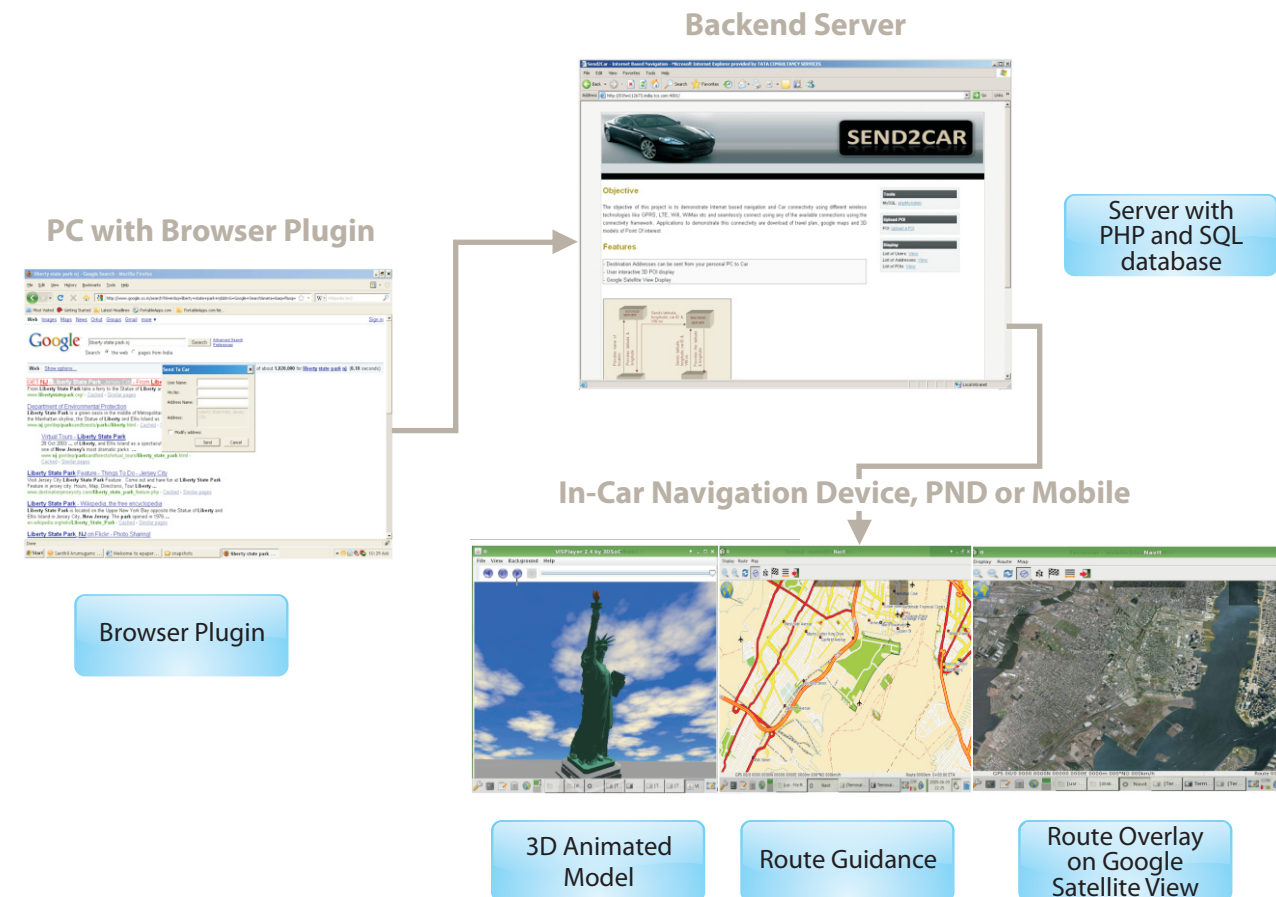


## Internet based Car Navigation

A connected car is the reality of the future, wherein cars will be connected to the internet cloud using any or all wireless technologies like GPRS, LTE, Wifi and Wimax. So it makes sense to take advantage of internet connectivity and have complete off-board navigation where map data and route engine is stored elsewhere. Off-board navigation will solve the issues of space requirement for map data, map updates on each device and the processing power required for route plan and route guidance. User can send to car his travel plan in any language set in the browser which also solves the localization issues faced in the address entry.

TCS has developed a Proof of Concept, to demonstrate Internet based Car Navigation using,

- Connectivity framework over Linux, where wireless technologies like GPRS, LTE, Wifi, WiMax, etc. can be easily configured and plugged in. Applications can be seamlessly switched to the available connections based on the bandwidth requirements and other parameters
- Make use of the backend infrastructure and Google Map API's for address entry, map draw, and traffic management.



## Features

- Destination addresses can be sent from your personal computer to your car
- User interactive and animated 3D models of travel point of interest
- Google satellite view with route overlay

## Advantages

- Localization for address input is not required
- Storage issues are resolved
- 3D navigation possible for the smallest devices with less storage space
- Graphics and CPU resource on the device is not required for map draw and route guidance

## Applications

- Off-board Navigation
- Travel plan
- Display of 3D points of Interest

## Deliverables

- Browser plug-in
- Backend sever module
- Navigation engine module
- Connectivity framework
- Requirements and design documents
- User Manual for installation and usage of browser plug-in, backend server and NavIt

## About Tata Consultancy Services (TCS)

Tata Consultancy Services is an IT services, business solutions and outsourcing organization that delivers real results to global businesses, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled services delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development.

A part of the Tata Group, India's largest industrial conglomerate, TCS has over 143,000 of the world's best trained IT consultants in 42 countries. The company generated consolidated revenues of US \$6 billion for fiscal year ended 31 March 2009 and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at [www.tcs.com](http://www.tcs.com).

## Contact

*To know more about TCS's Internet based Car Navigation for automotive infotainment please contact [corporate.engineering@tcs.com](mailto:corporate.engineering@tcs.com)*

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