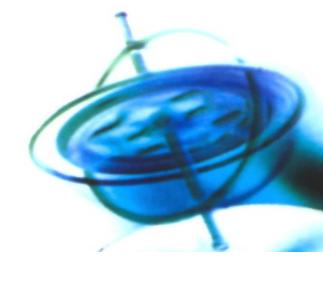
Zorba Asset Tracking Solution

State-of-the art fleet management and vehicle tracking solution to increase your productivity.

> Affordable installation and operating costs Easy to install and operate User friendly Web based client interface Full-fledged mapserver implementation Customizable software Monitor, control and manage your vehicles Report generation





Zorba Key Facts

Zorba vehicle management solution is a combination of vehicle tracking and Internet ensuring efficient and intelligent management of your vehicle, fleet or assets. Our unique software design and sophisticated mapping technologies provide the tools to run a productive and cost-efficient fleet. It also assures better security to your assets. Wherever it is.



What is Zorba?

Zorba is an advanced Web based GPS tracking solution that delivers state-of-the art services to assist your organization improve efficiency, prevent asset loss, increase security, optimise emergency and surveillance tasks. Zorba services are accessible online from any computer with a standard browser and an Internet connection. You can login to Zorba secure servers to manage your assets, track your devices and change account parameters.

Zorba makes automated location finding an easy task with professional GPS tracking and tracing devices, GPS enabled PDA/mobile phones and wireless or cellular devices. Zorba can be used to track vehicles, static and moving objects and mobile work force. In addition to these, advanced tracking features improve employee productivity and safety.

Tracking functionality includes real-time tracking of multiple vehicles, on screen route history viewing, vehicle history reporting and data exports in PDF, KML and CSV formats for further processing. Zorba supports a large number of hardware devices with facilities to add additional sensors and enhanced telematic solutions. On selected devices the configuration parameters and tracking commands can be sent over-the-air (OTA).

Key features

Web 2.0 application Modular, Scalable and Resilient design Highly Available (HA) and Fault-Tolerant (FT) Security and access logs Built on open source technologies and standards Over-the-air (OTA) configuration of devices Multiple databases, Webservers, Operating Systems Time zones, languages and multi-lingual maps Modular administration with multiple roles Real-time tracking with server push technology Playback with start, stop, rewind and fast forward Supports multiple devices with multiple sensors and telematics CDMA/GSM/GPRS/SMS network Devices with Internal battery and high quantity GPS data storage Vehicle Geofencing Route optimisation Add custom locations and Points Of Interest Custom map support Alerts and messages to ensure safety and Security Reports in multiple formats

Trouble ticket management

Zorba Fleet Administrator Zorba Communication Centre Zorba Location Server Zorba Map Manager Zorba Alert Manager Zorba Report Manager Zorba Map Viewer



How it works?

The vehicle or asset to be tracked is fitted with a GPS tracking device. The GPS tracking device carries a GPS (Global Positioning System) device, cellular or mobile device, antennas, back up battery and necessary glue logic. The GPS device of the tracking device calculates location from the available GPS satellite signals and transmit it over the cellular or mobile network to the Zorba Communication Manager.

The Communication manager can receive location data directly through the Internet using a number of protocols.

The server software is equipped with Zorba Location Server and other programs that can visualize the vehicle's position and create detailed reports. In other words, the server computer can plot the position of the vehicles on the map, monitor the entire fleet of vehicles/assets and create detailed reports.

Zorba Fleet Administrator

Fleet Administrator is highly modular in design. It allows administrators to add, edit or delete customers (user group) and users on your system. The software is designed in such a way that it can be used for providing services in an Application Service Provider (ASP) model. There are four different roles for easy administration. Administrators can control the user groups, users and the information they can access.

Roles

ROOT

PADMIN (Power admin)- Who can administer their own user group and sub user groups) Admin - Who can administer their own user group User - Who can use the features but cannot do the administration

Administrative tasks

The Fleet Administrator module can be used to perform various tasks

Manage Customers (user groups), users, fleets, drivers, vehicles, trips, devices, device providers, sms/email templates, maps, custom symbols and user activity logs

Assets/Vehicles can be grouped into Fleet

Each fleet can be assigned to different customers (user groups)

Same fleet can be assigned to multiple customers (user groups)

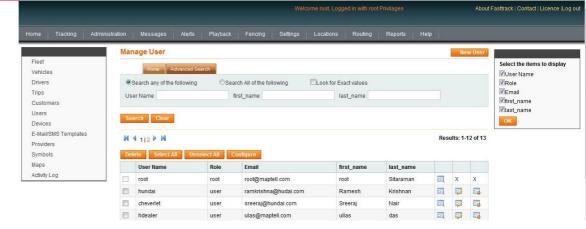
Supports route deviation monitoring based on custom routes

Supports multiple device models

Manage asset name and details

Manage and configure polling intervals

Trouble ticket management



Communication Centre

The Communication Centre controls the data communication between the devices and the server. It also handles the manual messages that are sent to various user groups and users. This will include

Job schedule messages

Job dispatch messages

Voice communication to specified phone numbers

Location Server

The quality of the geographical service and map support is one of the critical parts of the tracking solution. Zorba Location Server handles the mapping functionality and GIS support in a magnificent way, whether it comes to the display of the asset locations or to high level analysis tasks like dynamic routing. The Location server is equipped with an Internet Mapserver that is capable of digital map data extraction, and image rendering.

The Location Server handles some of these noticeable features

Dynamic map generation

The Location Server is capable of delivering both tile based and untiled maps. The mapping engine will also support OpenGIS WMS server capabilities. Standard third party map APIs are also supported along with custom mapping

Fast map display and GIS data manipulation

Text based search (geocoding), dynamic location retrieval (reverse geocoding), dynamic route optimisation including Travelling Salesman

Location Server helps the user to find out various locations using text based search. It also gives the address of the asset location interactively. The routing engine of the Location Server help users to calculate travel distance, to find the shortest distance between two locations and to find the optimised route between a number of user added locations to solve the Travelling Salesman Problem (TSP).

Support of geofencing with complex shapes in addition to regular shapes

Get alerts and reports on geofence entry, exit, prolonged stay (with user defined duration), early exit (with user defined duration)

Fencing can be configured for specific days of the week

Fences can be assigned to a fleet or a vehicle

Route deviation analysis

Location server calculates the deviation of an asset from a pre-defined route using advanced geometric analysis

Addition of custom locations and Point Of Interest Users can add custom locations based on their business needs. It can be a warehouse, a customer or prospect location, a bus stop or your favourite cafe. This feature will be helpful in planning and improving dispatch and delivery process. This will also indicate the proximity of your vehicles to your Point Of Interest.

Custom Maps Custom Looks: Zorba map Manager

With Map Manager you can create custom maps with your own spatial data. The Map Manager supports a large number of industry-standard spatial data formats like ESRI SHP and MapInfo TAB. The administrators can also change the colours and symbols.

Alert Manager

All system generated messages based on rules defined by the user or the device are handled by the alert manager. Alert email and sms templates in the Fleet Administrator can be used for adding custom alerts. You can edit the alert message as well.These are some of the alert categories already available

Stop - Vehicle stop alert

Vehicle Status - The current status of the vehicle

Speed Limit Breach - An alert is sent when the pre-defined speed is exceeded. Useful in identifying driver behaviour

Arrival Alert - Arrival at a particular location

Sensor Active - The status of available sensors (Optional)

No Movement - An alert is sent when the vehicle is static for a long period

Emergency call - Ideal in the case of an emergency related to the vehicle or the mobile work force

POI Visited - The important pre-configured locations visited on a day, during a day etc.

Panic - An alert is sent when the panic button is pushed. This is an ideal security feature that ensures the employee safety

Zone Alert - Vehicle enters pre-defined zones

Start Journey - An alert is sent as soon as the vehicle is started

License Alert - A message is sent when the license period of a vehicle/driver expires

Fuel Alert - An alert is sent when the fuel level decreases below a predefined level or an alert sent after re-fuelling (Optional)

Unauthorized movement - Security feature to prevent unauthorized trips Maintenance Alert - An alert is sent to remind the maintenance schedule of a vehicle

Unauthorized use - Security feature to prevent unauthorized use of the vehicle

Lazy Driver - An alert is sent when a driver is late to start job

Smart Driver - An alert is sent when a driver starts his/her job early

Zorba Report Manager

List of reports available off-the-shelf includes Travel Report Fencing report Top speed report Over speed report Distance travelled report Stoppage report Addtional reports can be provided as per client request and feasibility. By default, the reports are

available in PDF format. You can export the reports to KML and CSV formats for further processing.

Zorba Map Viewer

The vehicle location information is plotted on the map in a real time basis. The online track mode of the client viewer shows the present position of the vehicle. The maps will be dynamically updated on receiving new location information. The playback mode is designed to assist the fleet managers to view the past locations of the vehicle in a highly interactive way.

The Map Viewer supports zoom in/ zoom out (click zoom, and rectangle zoom) and map pan actions. The Map Viewer is an important feature of the tracking solution. Map visualization is enabled for

Tracking

This easy-to-use tracking application provides an accurate picture of your vehicle's locations. You can track your vehicles by the hour, day, week or month. Zorba is enabled with real-time tracking through server push technology with real time streaming. You may select one of the supported comet servers based



on your requirement and budget. Ajax based Live Polling and Manual Tracking methods are also supported

Playback

If you wish to look at what has gone on with your vehicle(s) over a period of time, the playback mode is of your help. The playback mode interface is equipped with a search filter. The users will be presented with a user interface where you can interactively select the vehicle, date and time period for which you want to get history data and record the trip.

Play back with start, stop, rewind, pause and fast forward facilities is a unique feature of the playback map window.

Playback analysis will give vehicle information in a nutshell in a few seconds - the places visited, stops, stop time, the speed of travel, distance Travelled and over speeding details.

Message Locations

Map based interafce is used to show the message locations.

Alert Locations

Alert locations is also visualised on a map window.

Fencing



Zorba supports software based Geofencing. Fences can be created using The map window. Complex shapes are supported.

Routing

Zorba map window based routing and Travelling Salesman Problem analysis speed up delivery and decrease fuel costs.



Languages and Time zones

Zorba supports different time zones and languages. The software also has provision for multi-lingual maps and multiple map themes.

Security and Access Logs

Zorba provides security to your valuable data through authentication and autherisation. In addition to this, transport layer security may also be provided through HTTPS. Security can be further tightened by IP based rules.

All user actions are recorded with details including the IP, date and time and action.

Two factor authentication can be added.

Build around secure framework

https support

System / Software requirements

Zorba is built on open source technology and standards. It uses PHP, PostgreSQL, Maptell Mapserver (based on UMN mapserver), OpenLayers, JQuery CakePHP and Java. It supports multiple databases, Webservers and platforms. The application may be hosted at client location and full source code can be provided for maintenance purpose (if required).

Scalability and Availability

Zorba is designed in accordance with the scalability and avaiablity requirements of the industry. The design is higly modular and avoids any single point of failure. Along with the industry standard clustering technologies Zorba servers can be configured for HA (High availability) and FT (Fault-tolerance).

Zorba Support

Mobile Clients

Get Location on Mobile / PDA

In addition to the standard Web interface, Zorba provides a unique client for Mobile and PDA devices. Users can check the location of their vehicles / assets using supported mobile devices.

Device Specification

Standard Model

Modem SMS GPS Receiver Operating Voltage DC Power Cable Configuration

Training and support

Training

The training team will provide training to Zorba administrators. This will include training sessions on *Hardware Integration Hardware and software configuration Zorba system administration*



CDMA or Tri-Band GSM/GPRS Modem Point to Point & Cell Broadcast 20 Channels DC 9V to 30V 3 Core Power Cable OTA and Manual modes

Support

We will provide round the clock support through the support center or through e-mails to all our valued customers. In addition to this maptell may provide a dedicated resource on site or on demand (charged seperateley).

