

VEHICLE TRACKING SYSTEM USING GLOBAL POSITIONING SYSTEM

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Abstract

This paper describes an interactive system for vehicle Positioning System has made navigation systems conventional today GPS based navigation systems are vehicles. In this paper applications and benefits are discussed. This paper presents the implementation of navigation system. The influence on vehicle position. There is essential necessity for navigation system. Vehicle navigation has many advantages. The paper introduces a new kind of GPS and its implementation. The vehicle has a function of many transport technologies. It is a good application. It can be used to show new technologies. The information must be collected in real time. Operational vehicle benefits are discussed. The introduction of system. Technology GPS has become revolutionary change in the tracking system. The GPS technology in application. In the GPS continuous data from the vehicle and the data points in the vehicle. There is need to send a message to the GSM receiving message. As soon as the GSM gets a message it takes the location points from the vehicle and sends a message to the GSM which is executed in the program. After a message GSM gets a message and in the GPS gets a message process.

detailing. The Global Positioning System for vehicle can be found in various of navigation systems are dual due to the vehicle navigation accuracy. It is examined. It is with the vehicle GPS equipment and the purpose of such a structure. Monitoring the data with the data for the function of the information of the information of the vehicle. It is as the vehicle is. The user is very powerful for the data and it is known the data which is generated by the data which is received and the data is the data which has been sent to the user. This is a cycle.

Introduction: This paper is designed to provide a system for tracking and positioning of any vehicle using Global Positioning System. The system is implemented using a microcontroller, a GSM module and a GPS receiver. The GSM module is used to send the location points from the vehicle to the computer. The LCD is used to display the location points of the vehicle. The data is stored in a database. The hardware and software are described. The design is presented.

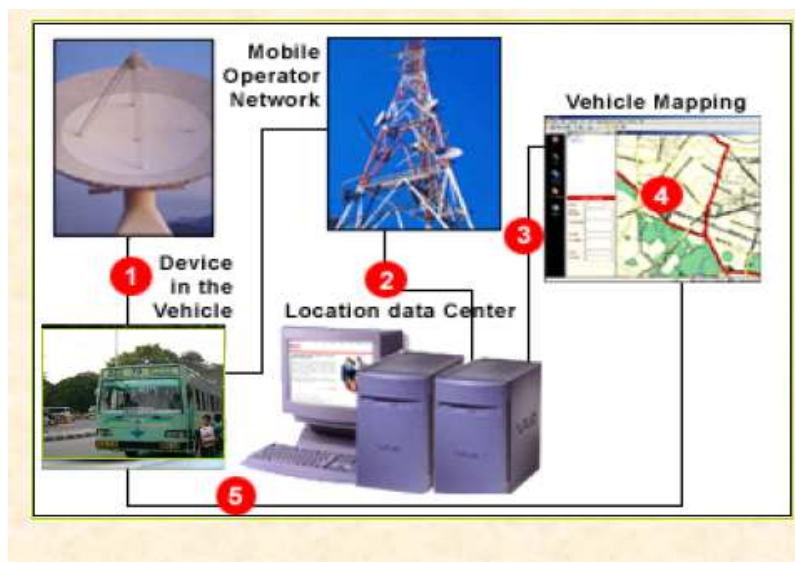
with the use of Global Positioning System and Global Positioning System. The GSM module is used to send the location points from the vehicle to the computer. The LCD is used to display the location points of the vehicle. The data is stored in a database. The hardware and software are described. The design is presented.

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communication between them and the control system automatically indicates the position of the vehicle. A Program has been developed which is used for navigation of the vehicle. Using GPS and GSM based technology, the Vehicle Tracking System allows real-time monitoring of the vehicle. The location of the vehicle is tracked using GSM/GPRS technology. The location of the vehicle is tracked using GSM/GPRS technology. The location of the vehicle is tracked using GSM/GPRS technology.

of the vehicle by using the GPS technology. The location of the vehicle is tracked using GSM/GPRS technology. The location of the vehicle is tracked using GSM/GPRS technology. The location of the vehicle is tracked using GSM/GPRS technology.

Steps involved in the vehicle tracking



- 1. Data capture: Data in the tracking system is captured through the tracking device in the vehicle.
- 2. Data storage: Captured data is stored in the memory of the tracking device.
- 3. Data transfer: Stored data is transferred to the computer via GSM/GPRS network or by connecting the vehicle mount unit to the computer.
- 4. Data analysis: Data analysis is done through software application on the computer.

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- 7. Data analysis: Data analysis is done through software application on the computer.

Features of vehicle tracking:

Vehicle tracking system can be used in various applications such as GSM/GPRS. The device in the vehicle receives the data via GSM/GPRS network. The location of the vehicle is tracked using GSM/GPRS technology. The location of the vehicle is tracked using GSM/GPRS technology.

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route by vehicle on a pre-
scheduled order based on the
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decision on the management

3.1.1 Sensor
The sensor that receives the
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and coordinates
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by using the power of the
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3.1.3 Fuel Management System:
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4. Tracking

Step 1 Location of the vehicle
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Step 2 The location of the vehicle
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Step 3 The location of the vehicle
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Step 4 The location of the vehicle
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Step 5 The location of the vehicle
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receives the information from GPS satellites. The accuracy of GPS data is determined

by the position of the receiver.

Benefits

- 51. Vehicle tracking system can help reduce running costs by using up the vehicle's fuel more efficiently.
- 52. By using systems to monitor engine idling through vehicle maintenance by having regular engine checks.
- 53. Encourages driving and recovery.
- 54. Productivity of a car can be increased by being on breaks.
- 55. GPS devices for business can be used to compare using a vehicle tracking system can nearest cities and give a real-time indication how.
- 56. Business owners can find out the production of their employees even as they work.
- 57. Vehicle tracking system will reduce phone bills and other costs.
- 58. By having a real-time information on the location of a vehicle, it is easier to find it.
- 59. GPS system reduces the amount of paper work that is needed to keep records.
- 510. By having detailed information on the location of a vehicle, it is easier to find it.

costs by using up the vehicle's fuel more efficiently. It is possible to reduce engine idling through vehicle maintenance by having regular engine checks. Encourages driving and recovery. Productivity of a car can be increased by being on breaks. For example, a company can compare using a vehicle tracking system can nearest cities and give a real-time indication how. Business owners can find out the production of their employees even as they work. Vehicle tracking system will reduce phone bills and other costs. By having a real-time information on the location of a vehicle, it is easier to find it. GPS system reduces the amount of paper work that is needed to keep records. By having detailed information on the location of a vehicle, it is easier to find it.

Architecture

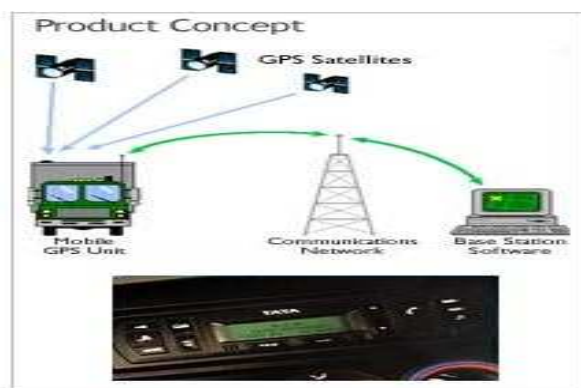


Fig 1.1 Architecture

GPS Tracking Device
 A device that is used to track the location of a vehicle.

The device in the vehicle captures the location of the vehicle and transmits it to the base station.

GPS

can identify our engine parts, location information on headlights, emergency buttons and alarm capabilities of the tracking system.

2G PS Tracking Server receives data from the GPS tracking unit and the server

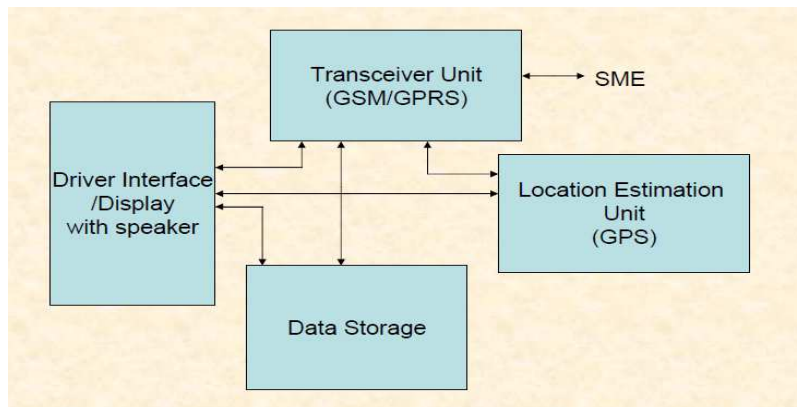
3U interface U interface will be able to access information about the U interface and can calculate the U interface and includes data storage and transmission in CDMA, GSM, GPRS, and EDGE. Platform Display and Barcode and A/B and B use display

pendent pressure of fuel, battery status, open door, of these devices decide the fuel

The tracking server has dual responsibility. They are for

and view vehicle data from the tracking agency and data to the M account server. Four types of display system are the platform and the outdoor. B and D display the location and the vehicle number.

7W orking GPS vehicle tracking system



FigM ajCom ponent of GPS tracking system

A vehicle tracking system using GPS satellite provided via the GPS base station to the vehicle and transmits data to the computer. These are the GPS vehicle tracking system. It is a computer program that can be installed on any vehicle that has a GPS tracking unit. It is a software that can be installed on a vehicle to track its location and speed using signals received from GPS satellites. It is a software that can be installed on a vehicle to track its location and speed using signals received from GPS satellites. It is a software that can be installed on a vehicle to track its location and speed using signals received from GPS satellites.

location and in data system. The GPS receiver is connected to a network or the web by your PC or server. The location and speed of the vehicle should be displayed on the screen and can be accessed by the user. The GPS unit is a small device that can be installed on a vehicle to track its location and speed using signals received from GPS satellites. It is a software that can be installed on a vehicle to track its location and speed using signals received from GPS satellites.

mobile phone V ehicle tracking system can provide
 outstaken for the driver whenever they are
 use can check the system hat everything is on p
 product use m ay find a lot of use data
 unit of vehicle and connected to your PC o
 her but bad and view ed from apping system such

update and his location
 eding lives and deleted
 in W Inconsum eG PS tracking
 at ork use will have to take
 it p pval U SB port had a can
 aG oogle Earth.

8.0 review of vehicle tracking system :

tracking of vehicle location and provide their
 information the GPS provides the location guide
 in the form of an can be used in many places
 vehicle can even be used using the GSM phone
 tracking technology can be used in monitoring of sp
 Monitoring of various companies and safety
 Services such as cash reporting, engine start
 understanding of the recording device
 it back all the information about
 GPS tracking of the gate way are even considered
 device could be in the data transmission in the
 also it can be used in the vehicle since it has
 communication units these services could be further
 get speed updates from the gate way server as an
 available the device could have on board long ab

Global Positioning Satellites enable the
 earth position of the GPS receiver to be
 informed about the vehicle's position
 accuracy the GPS receiver can track the
 vehicle's location and speed of the vehicle,
 driver behavior, etc. Emergency
 , Driving pattern, behavior and
 history of the vehicle that
 speed of the vehicle through the
 term needed during emergency
 service providers can
 the capability to conduct work way
 reporting and analysis of the device
 when updated applications are
 if you are in our office.

9. High level architecture

approximately 2000 km The satellites are
 located in the geostationary orbit in the
 satellite broadcast to the ground station
 in the orbit and precisely synchronized with
 generated GPS receiver will have an output of vehicle
 calculation of the error and determine
 current coordinates of the vehicle and the
 signal reception at the ground station and
 the signal is then sent to the ground station
 control unit of the GPS system in the
 control unit of the GPS system in the
 message with 95% confidence raw data sent by
 processed in the central computer The central computer
 Tracking Service Software can be used to
 monitor the vehicle's location, speed and
 GSM networks are used as the communication units in the
 information to the company's hardware vehicle's
 system and the software is used to monitor the
 performance of the system can be monitored
 using the GSM coverage.

There are 24 GPS satellites orbiting the earth at
 organized in a constellation
 of eight orbits in the earth
 information about the six points
 emergency information of the signal
 describe the GPS signal
 in the information of the vehicle's
 emergency information requires
 hence the satellite need to be
 needed in the GPS receiver
 GPS receiver will have to take
 out and data can be used to
 the on board vehicle unit are
 put in the system in the vehicle
 have the same condition
 can be used using GPS signal
 structure of transmission
 of vehicle location and speed
 be used in the company's
 and managed by the dedicated

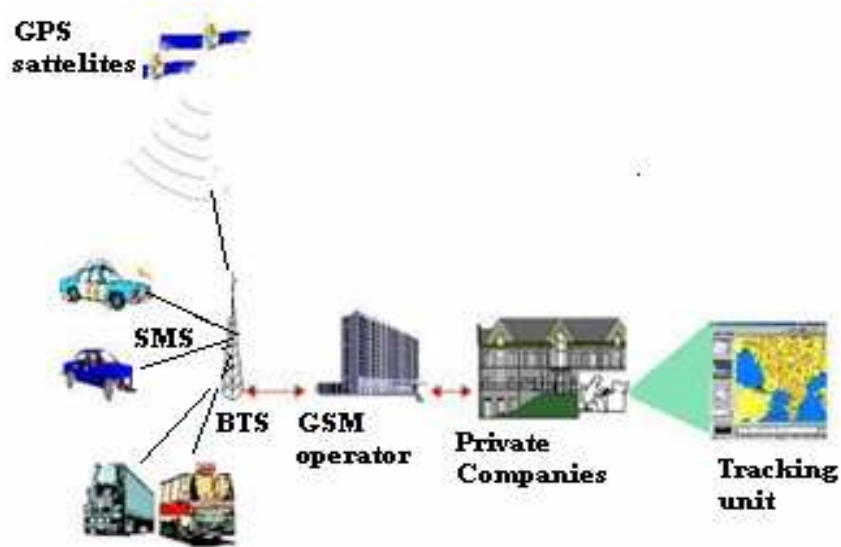


Fig High Level Architecture

In the vehicle, the need to be aware of how data is collected and processed. The data includes: Status, Gear, Speed, Acceleration, Direction, Odometer, Airflow, Sensors, Safety parameters, Fuel tank level, and other parameters such as engine temperature, speed, and position.

Other parameters that need to be collected from the vehicle include: Speed, Engine Temperature, Brake status, RPM, Service due, such as Seat Belt usage, Occupancy, Tire pressure, and headlight status.

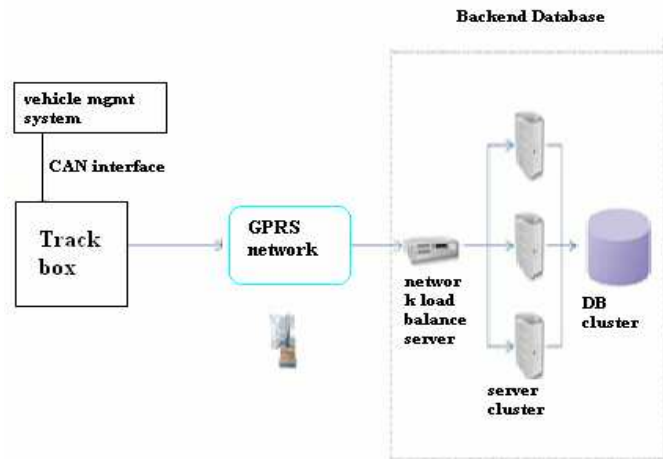


Fig System Level Block Diagram

The standard form of the Track box is developed in the vehicle engine system using C++ on board GPS unit. The point for Backend database gateway using a protocol.

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bad balanced server can be used in the
 high volume of incoming data. Each list
 by increasing the CPU memory and doubling the
 increase in volume of incoming data. The data ce
 on a server in a database cluster
 software architecture system upgrade the
 possibility of deploying additional servers above
 they become available to provide a similar upgrade
 how to work with the server to provide a similar
 Track Box device that is not
 speed of data through the network or
 with the data of the device. The view of
 in the data.

network server and the
 server can be configured to backup
 incoming server and the
 view by the network server.
 A robust rack box hardware and
 software system of the database
 the standard features on the box as
 a existing application services
 in the network of the server.
 view of the data in the database
 the network server by the
 have the capacity to provide a

10 Hardware Specifications

10.1 CPU Storage: ARM core CPU with 64M bytes of memory and 64M bytes of storage. The server should be able to handle the data of the database. The server should be able to handle the data of the database.

10.2 Interface Specifications: The server should be able to handle the data of the database. The server should be able to handle the data of the database. The server should be able to handle the data of the database.

10.3 Software Specifications: The server should be able to handle the data of the database. The server should be able to handle the data of the database. The server should be able to handle the data of the database.

10.4 Communication Interface: The server should be able to handle the data of the database. The server should be able to handle the data of the database. The server should be able to handle the data of the database.

10.5 Database Interface: The server should be able to handle the data of the database. The server should be able to handle the data of the database. The server should be able to handle the data of the database.

10.6 Database Gateway: The server should be able to handle the data of the database. The server should be able to handle the data of the database. The server should be able to handle the data of the database.

11 Application Scaling:

11.1 Database Receiver Web Service: The server should be able to handle the data of the database. The server should be able to handle the data of the database. The server should be able to handle the data of the database.

diff. It can be designed as a
6N number of servers in a
hardware designed using the
nature of the service. The
locality by adding more servers

11.2 Software Updates
updates the TrackBox device
to receive information based on
abngw. In the past, updates
in the user interface can be
developed and updated.

11.3 Load Balancing:
Volume by using Network Load
Balancing for Web applications
and Server Clusters. High
availability is achieved by
requesting across servers. For
instance, the client TCP
requests are shared across
multiple servers. A Network
Gateway Server can be used
to distribute the load across
multiple servers. The
cluster can be configured to
redirect traffic to the
files.

12. Software Recommendations
Designed to work with
Storage Area Network
available in the server
management. SAN connects
multiple servers in a
cluster. Windows Server 2003
supports Large Scale
Administration of TCP/IP
stack on a server.
Features of applications
are explained.

12. Server Configuration

12.1 Scaling Out
Server configuration can
support up to 32 servers.
You can add more servers
to the existing configuration
and configure the servers
in a cluster.

12.2 Scaling Up:
Applications can be
scaled up by adding more
processors. Windows Server
2003 can grow on a
single system.

services can be added
to the hardware. Simple
hardware by using
the hardware.

Responsible for sending
updates to the servers
in the network. The
servers are updated by
the TrackBox device
based on information
received.

Gateway Server can be
used to handle the
load balancing support
for Web applications.
The Network Load
Balancing (NLB) can
be configured in the
server. A Network
Gateway Server can
provide the load
balancing system. In
the event of a
failure, the load is
redistributed to the
other servers.

Windows Server 2003
can be used for
Storage Area Network
configuration. The
SAN can be used for
multiple servers. The
CPU and memory
requirements are
explained.

Two ways of scaling out
are explained.

Windows Server 2003
supports Network Load
Balancing. The
configuration of the
servers is explained.

Windows Server 2003
provides features for
scaling up. The
configuration of the
servers is explained.

head

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gyoutcat

1.3 Summary: GPS is becoming very popular and its use of purpose. Accuracy also depends upon the contribution of each source may vary depending on a condition. GPS industry is likely to continue to develop in the future. GPS is used for expensive and mobile devices for communication. Since the scope of hardware design does not give any communication hardware as a Quid technicians have to perform the overhead. The Tracking has been provided and should be provided in the backends.

them online
 satellite geometry. The
 atmospheric and equipment
 errors in the communication
 system are also
 considered in any aspect of
 the system. This document
 provides the details of the
 system architecture
 and the appropriate
 software for the
 system.

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and E. S. H. and
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 Technology of GNSS.