VEHICLE TRACKING SYSTEM

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VEHICLE TRACKING SYSTEM (VTS) WITH GPS SATELLITE SUPPORT
SOME APPLICATION AREAS

Online Fleet Management
Fuel and Heat Level Monitoring
Order and Cargo Tracking
Fleet Performance Analysis
Security, Road Assistance
Emergency Help
Why the firms need VTS

- Fuel and Power Saving
- Effective Fleet Control
- Instantaneous Fuel Level Monitoring
- Decreasing the Accident Risk
- Driver and Load Security
- Evaluation of Drivers Performance
- Monitoring the Delivery Time
- Safer Vehicle Renting
In which sectors is VTS used

- **School and Employment**
  VTS can alert when vehicle is approaching

- **Public Service**
  VTS avoids misusage

- **Railroads**
  VTS can monitor the wagons online

- **Private Yatches and Fishing Boats**
  VTS locates the vehicle in case of emergency

- **Logistics, Cargo, Distribution, Transportation**
  Fleet management

- **Police**
  Communication with other vehicles

- **Rent a Car Firms**
  Monitor the vehicle in agreement terms

- **Working Vehicle**
  Monitoring vehicle which project they are working
Reasons of Using VTS for Logistic Companies

- Prevent smuggling
- Knowing the exact location of the cargo
- Storing data about routes of trucks
- Providing information to customer
Reasons of Using GPS Tracking Systems for Insurance Companies

- Security for theft

With variations of vehicle tracking system insurance companies can locate the stolen vehicle and stop its engine. To make this system common Insurance companies offer discount for the insurance of cars.

Ex: Genel Sigorta provides 15% discount for the customers who are agree to apply UND vehicle tracking system (UND is a product of UND Teknolojileri, which has a agreement with Genel Sigorta.)
Reasons of Using GPS Tracking Systems for Automotive Producers

- To provide emergency service to customers
  Ex: Porsche offers a GPS tracking system for its customers. With pushing on a single button called S.O.S on the middle console Porsche customer can get road service. (Only in Europe)
- To keep track of the products against auto theft
Technology Used for VTS

- Instantaneous Location Targeting
  - Positioning 2-3 metres with GPS Satellite Help
- Acknowledging the Position
  - via GSM, SMS or Data Line
- Monitoring the Vehicle Online
  - Tracking the position of the vehicle on digital maps via an online monitoring program
VEHICLE KIT COMPONENTS
Accessories of VTS

- Fuel Level Sensor
- Temperature Sensor
- Alarm Button
- Driver Identification Sensor
- Truck Body Door Sensor
- In Cabin Voice Connector
REQUIREMENTS OF VTS

- Vehicle KIT
- Gsm SIM Card
- OnLine Software
KIT GSM CARD PLACE
How Does VTS Work
SVTS SOFTWARE

- SVTS is the software which is located at the control center and it forms the brain of the system.

- It contacts with the vehicle kits, gathers information from them and processes this info.

- Information coming from the vehicle is viewed over a GIS (Geographical Information System) system which is integrated to the SVTS software.

- This system enables users to see which route the vehicle uses over digital maps.
APPEARANCE of SVTS
Some Features of VTS

STANDARD FEATURES

Where is the Vehicle
What is the velocity of Vehicle
Does the Vehicle exceed the speed limit
Which route does the vehicle use
Some Features of VTS

**OPTIONAL FEATURES**

What is the temperature of Vehicle
Which driver is driving the vehicle - “RFID based”
What is the fuel level
Which goods are loaded - “Barcode reader”
Locking the Doors
Stop the Engine
In Cabin Camera
In Cabin Microphone Connection
POTENTIAL PROBLEMS OF VTS

- Some Vehicle Firms void warranty when VTS loaded
  - Mercedes and Renault is accepted the warranty after VTS loaded for Reysaş Company
- Interrupting Privacy – Legal Punishment
  - Tracking
  - Listening and Video Recording
COST OF VTS (standart)

● One vehicle
  ● Setup cost: $280 / minimum requirements
  ● Variable cost
    ● For internet application: $ 10-15 / month
    ● For GSM Service
      ● 1-2 YTL / month (5 minutes update)
      ● 30-40 YTL / month (instant update)

● Fleet (200 vehicles)
  ● Setup cost: $220 / minimum requirements
  ● Variable cost
    ● For internet application: $ 7 / month
    ● For GSM Service
      ● 0.1 – 0.2 / month, vehicle (5 minutes update)
      ● 5 - 10 YTL / month, vehicle (instant update)
Costs vs Benefits

- Teknobil SVTS-Pro 380$
  monthly payment for iSVTS software online: 15$/month
- Vehicle phone (handset): 50$
- Emergency alarm: 30$
- Vehicle fuel measurement system: 150$
- Container connection sensor: 75$
- Mini communicator message unit: 150$
- Communicator message unit: 280$
- Vehicle bugging device: 50$
- Temperature control system: 80$
- Container door sensor: 75$
- Driver identity unit: 95$
- Vehicle stopping system: 60$
- Tachometer connection unit (digital): 30$
- Tachometer connection unit (analog): 70$
- Tanker manhole hatch sensor: 55$
- Fuel tank hatch lock sensor: 65$

VS

Articulated lorry: 100000$ to 500 000$

Reliable company reputation: PRICELESS