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**STUDY**  
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## The Truck Surveillance System (Truck Log)

The system consists of:

- A navigator solution for vehicles
- A web based GUI for TRACKING & TRACING vehicles
- An integrated order manager

The client application runs on a Pocket PC connected to a GPS system, which determines the global position of the truck. The raw data from the GPS is then converted into delta coordinates and the result is sent over to the server as a short text message (SMS). The Pocket PC is equipped with the WinCE operating system.

The server application waits for incoming calls using a PRI compatible ISDN card. The caller id and the extension number are then extracted from the incoming calls (without having a connection established) and decoded in delta coordinates. The decoded information is then saved to a central database.

### The Technical Environment Of The Client Side:

The mobile client is a PDA (Pocket PC) or a blackbox (Falcom F35 xxi-si module) that receives GPS data and sends the current position to the communication server using the GSM network.

#### The PDA version:

- Displays the current car position on the map and allows navigation
- Sends predefined user messages to the server (traffic or customer specific messages)
- Defines hot spots and takes actions based on the current car position
- Deals with order handling
- Enables email access via GPRS
- Can send SMS configuration messages

Platforms: Pocket PC 2002, Windows Mobile 2003, Windows CE .Net Version 4.20

Programming Tools: Embedded Visual C++ 4.0

#### The Blackbox version:

The current GPS position is sent to the communication server over the GSM network



Platforms: Falcom F35XXL-SI-G8 with Ecos

Programming Language: C

## **The Technical Environment Of The Server Side:**

The communication server runs on a linux based machine and receives messages from the mobile clients. The messages contain GPS coordinates or predefined user messages. The data is stored in a central database.

### **Features:**

- Communication protocol that has been developed to minimize the transmission costs over the telephony networks. With this protocol, the mobile clients send data to the server at no cost.
- Stores GPS coordinates and user messages in a MySQL database
- Web based user interface including : display the vehicle position on the map, routes representation and driven kilometers for each vehicle, message interface to dispatching orders and information to the client and master data administration for drivers, vehicles and planning managers.

Platforms: SuSe Linux 8, Windows 2000/XP

Programming Tools: C++, Microsoft Visual C++ 7.0