PROLAN Locomotive On-board Computer

Multipurpose communication unit in 2 versions:

	Standard	Lite
GPS / GPRS online tracking	✓	✓
Driver's working time management	✓	✓
Supervision of all railway movements	✓	✓
Electronic timetable in the cabs	✓	✓
Audio and visual passenger information on trains	✓	✓
Energy control, diesel and electric	✓	
Vehicle diagnostics	✓	
Black box functions	✓	✓

PROLAN

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Where are my locomotives?

LOC/MFB

Fleet management with Locomotive On-board Computers

PROLAN

What is Prolan LOC?

The Prolan Locomotive On-board Computer system is designed for online monitoring of locomotive and other traction vehicle fleets.

The system enables objective recording and assessment of the fleet performance, achieving significant improvement towards the optimal, cost effective running conditions.

For the passenger transport division the system offers the following important benefits:

- Real-time on-board visual and audio passenger information for traveling passengers

- Real-time train data for the station passenger information systems and Internet publication

- Transport according to schedule and control of observing valid restrictions
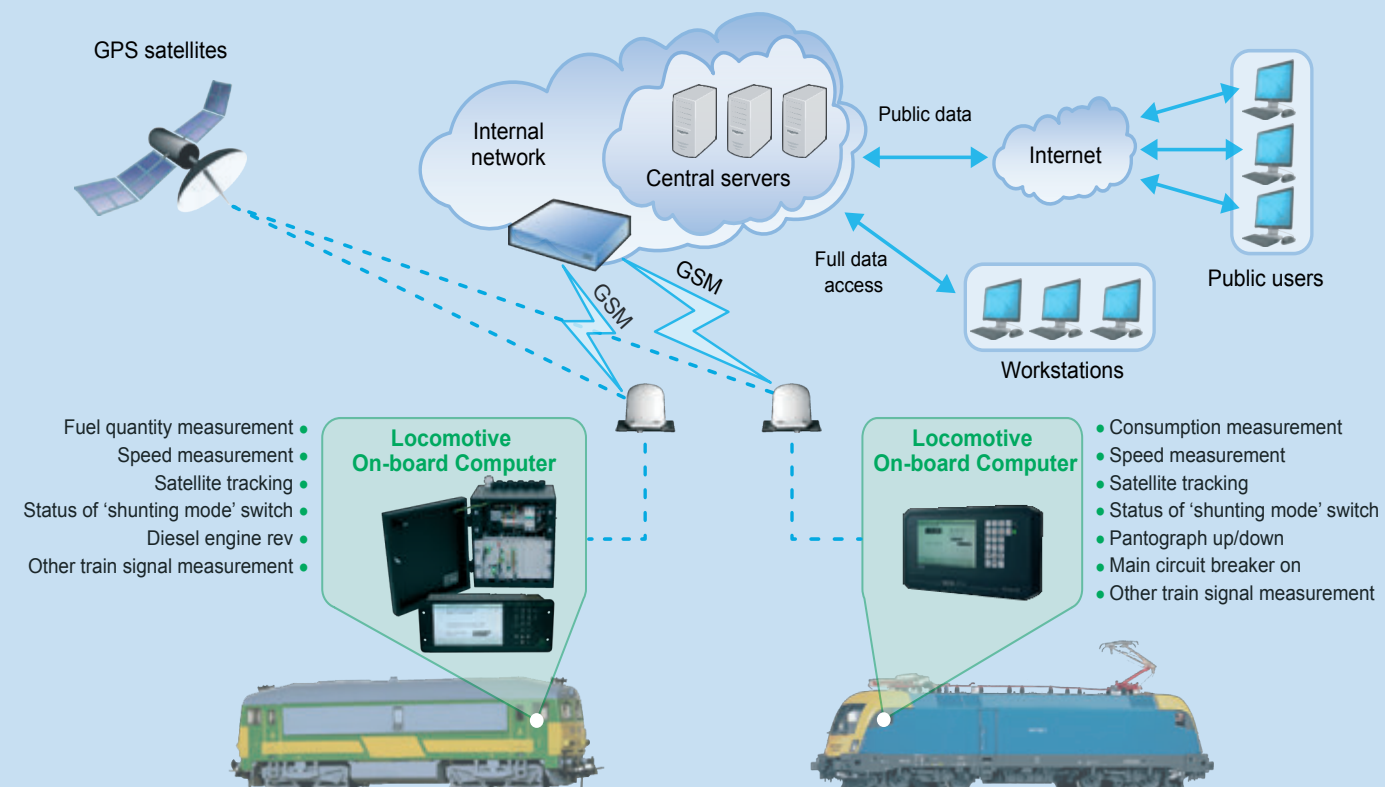
The infrastructure maintenance division also benefits from the system:

- Provides real and prompt information about the present state of the vehicles for the operating, supervising, controlling staff

- Supports the central and/or regional traffic control

How does it work?

The diagram below shows the structure of the Prolan Locomotive Supervisory System in operation at the Hungarian State Railways.

GPS satellites

Internal network

Central servers

Public data

Internet

Full data access

Public users

Workstations

GSM

GSM

Fuel quantity measurement
Speed measurement
Satellite tracking
Status of 'shunting mode' switch
Diesel engine rev
Other train signal measurement

Locomotive On-board Computer

Locomotive On-board Computer

Consumption measurement
Speed measurement
Satellite tracking
Status of 'shunting mode' switch
Pantograph up/down
Main circuit breaker on
Other train signal measurement

Complex LOC

Easily variable, modular design

- CPU card with 64 MB RAM and min.

- 1GB flash storage

- Digital and analog inputs for recording all relevant parameters of the locomotive

- Energy consumption meter connection for industry standard voltage and current transducers (on electric vehicles)

- 72 hours battery operation

- Standard communication interfaces: CAN, LAN, RS 422, RS 485, USB, Ethernet

- Industrial housing, 6" monochrome or 7" color display, soft touch keyboard with built-in RFID reader

- Combined GPS/GSM antenna certified for railway applications

- Wide range of sensors and transducer for various measurements supports personalized customer needs

LOC Lite

Simplified design for easy mounting and mobility (300 mm x 115 mm x 70 mm)

- Manufactured in both dashboard-inserted and standalone mounted versions

- The built-in battery provides a 12 hours long independent operation from the locomotive power network

- Standard communication interfaces: CAN, LAN, RS 485

- 64 MB RAM and min.1GB flash storage (SD card)

- 800x480 resolution LCD display

- RFID reader

- Numeric keyboard

- Power supply requirements: 24-110 VDC

- Outdoor or indoor combined GSM/GPS antenna