INFO-pass

gmv ®
INNOVATING SOLUTIONS

ITS

Integrated passenger information solution

INFO-pass is a combined Passenger Text-Video-Audio Information System. Based on a fully digital architecture, **INFO-pass** provides the features of a classic Passenger Information System enhanced with a high performance Video-Information system.

INFO-pass provides the passenger with: text information on LED displays located throughout the train (front, side and interior displays), video information on monitors placed in each coach and audio information on the Public Address system of the unit.

Thanks to its modular architecture, it is possible to acquire the complete Information System or any combination of the different subsystems.

marketing.transport@gmv.com

gmv.com
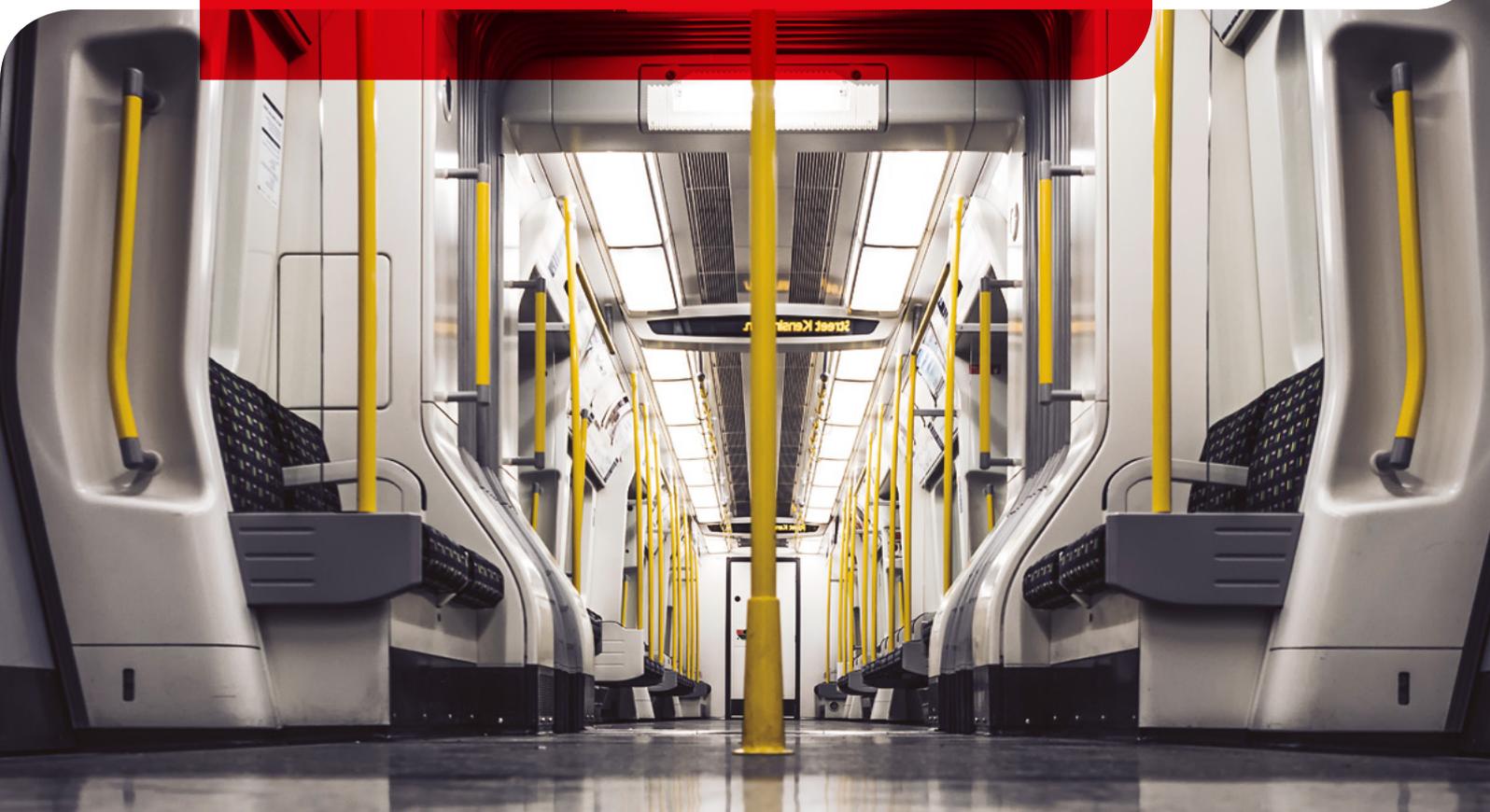
ARCHITECTURE

- **INFO-pass** is based on a fully digital architecture. The system is distributed over an Ethernet backbone along the train. All available information is digitally exchanged between coaches.

- This architecture provides high scalability in the design of the system and easier maintainability during its life-cycle. Every element is connected to the Ethernet backbone of the train.

- A PI controller is installed in one of the coaches to perform displays control. This module also provides location based on RFID beacons, odometer and GPS, and wireless communication for remote content downloading and online information transmission.

- PI controller also provides Text-to-Speech features and pre-recorded audio for third-party analog & digital PA systems.

- The Digital Video Server generates Video-Information for the TFT monitors.

- HMI's are provided in both cabins to control and monitor the system performance.
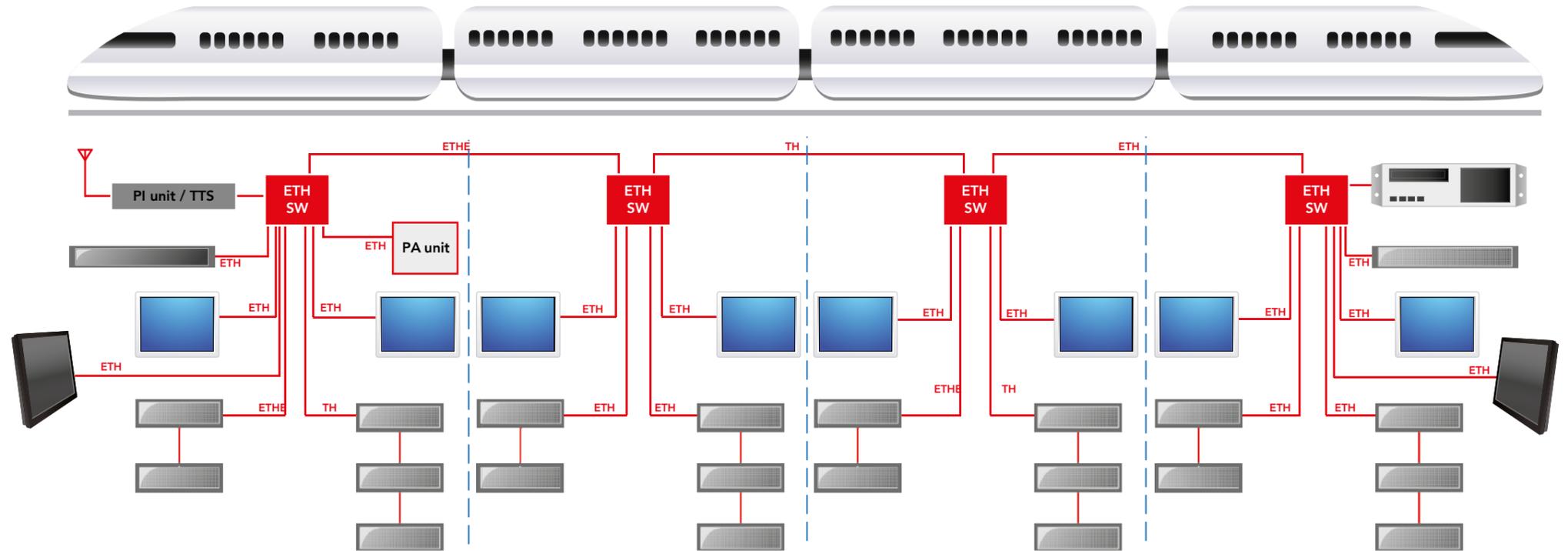
FEATURES

INFO-pass locates precisely the train using a combination of RFID beacons, odometer and GPS. With the calculated position, it performs an automatic arrival detection for every station in the line.

Current and next station information is shown on on-board displays and/or on-board monitors. The related audio speech is simultaneously broadcasted through the PA system of the train.

Additional information related to the station and line, such as connections with another means of transport, details for the disabled as well as any other particularity, is also provided.

The Digital Video Server generates the combination of video contents and trip information and broadcasts it to the monitors

Text, video and audio contents can be programmed to be reproduced during the service. A desktop application is used to define the schedule.

The contents and schedule can be remotely downloaded to the train by means of a WiFi interface.

Multimedia contents can also be event-based played. Point-of-Interest can be defined in order to reproduce the selected contents when entering or leaving the area.

Its 4G modem permits a fast online content transmission for reproduction during the service.

TECHNICAL CHARACTERISTICS

On-board equipment compliant with EN50155, EN50121-3-2, EN61373.

Robust design. Rugged connectors.

Supply range according to EN50155. Supported voltages: 24Vdc, 48Vdc, 72Vdc, 110Vdc.

PI controller

- CPU-based device. Linux O.S.
- 512MB RAM / 512MB Flash memory (extendable)
- High sensitivity 20-channel GPS receiver
- 4G/3G/2G modem
- WiFi interface (802.11 b/g/n)
- Pre-recorded audio. Synthesized audio (optional)

- Ethernet 10/100Mbps. Rugged M12-D connector
- USB interface
- Metallic enclosure. Reduced 9.5" format
- Mounting brackets supplied

- DVS, Digital Video Server
- CPU-based device. Linux O.S.
- 1GB RAM / 1GB Flash memory (extendable)
- 500GB Solid State Disk (extendable)
- Integrated DVD unit
- Integrated 7" HMI, for contents selection and management
- Ethernet 10/100Mbps. M12-D rugged connector
- USB connectivity
- 19" rack format

LED DISPLAYS

- Different types of displays can be supplied. A wide range of different characteristics are possible to meet the specific needs of the customer
- Types: front, side, interior displays
- Number of lines: One-line or multi-line
- Colours: red, yellow, green, multicolour...

IP MONITORS

Different IP monitors can be chosen
Format: open frame (stand-alone optional)
Size: recommended from 10" to 24"
Luminance: from 200 to 600 cd/m2

HMI unit (driver's interface):

- 2 options are available: 10.4" (4:3) and 7" (16:9). Other options are possible by customer request
- Resistive or capacitive options
- Luminance: 400 nits
- Contrast ratio: 500:1
- Viewing angle: H: 120°, V: 100°
- Antiglare surface
- Mounting brackets for driver's desk supplied
- Optional mounting solutions can be provided
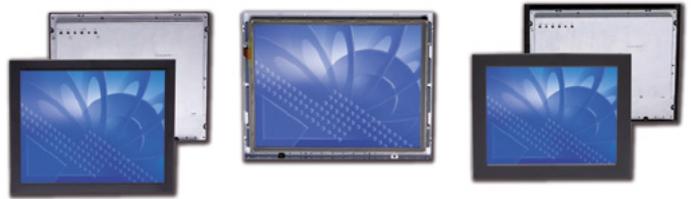
GMV SERVICES

All the systems are supplied with mating connectors and all the required documentation for system installation and operation: user manuals, installation and configuration guide and wiring schemes. Additional documentation could be also provided by costumer request.

A catalogue of spare parts is available during the whole life-cycle of the system.

In-factory assistance for the installation and setup of the system is optionally provided.

GMV offers customized maintenance contracts for all the systems supplied.