

Overview



140 buses



400 employees



45m passengers
annually

Industry

Bus

Challenge

Make bus connections more reliable; provide precise passenger information.

Solution

Trapeze Intelligent
Transport System (ITS)

Results

- ✓ Intermodal transport control system
- ✓ Dynamic passenger information
- ✓ More reliable operations

Background

Verkehrsbetriebe Luzern AG (Lucerne Transit Agency) with a workforce of around 400 employees provides services for 15 communities near Lucerne, carrying nearly 45 million passengers each year. The entire route network covers just about 300 kilometres. Verkehrsbetriebe Luzern operates about 140 buses, serving 300 stops.

The Solution

The approx. 50 stop signs SmartInfo in Lucerne are part of the automatic vehicle location and control system (AVLC) type LIO which is connected to an analogue radio system. The buses in Lucerne also have modern on-board computers (IBISplus). The system was projected and supplied in four phases. Verkehrsbetriebe Luzern AG (Lucerne Transit Agency) is now in a position to offer far more protected transfers.

The functionalities

- Automatic vehicle location and control system LIO
- Modern on-board computers IBISplus
- GPS based positioning
- Passenger information system (SmartInfo)
- LIO-Data data supply
- Loading the vehicles with software and data using WLAN (wireless LAN)
- Geographic information system (GIS)





The system at a glance



Control centre

3 dispatcher workplaces



Radio system

Analogue quasi synchronous radio system; 3 voice channels, 1 data channel, 2 base stations



Vehicles

140 buses



Dynamic Passenger Information

50 SmartInfo signs with acoustic features (one also with a clock), 2 third party DPI signs from IB-Datentechnik, with radio control



Depots

Altogether 2, equipped with WLAN



Third-party components

Planning program DIVA, Moveo; ticket printer S-POS; video multifunctional display by RUF; radio provider: Jöhl & Köferli



Software interfaces

Planning programme DIVA, ISAS, Moveo, Depot Data Management DDM, ticketing system S-POS; SESAM connection loop to delete trips of vehicles, which are not AVL-equipped, from the displays at the station

Results:

- AVL upgrade
- 50 SmartInfo signs
- Protected transfers

“Verkehrsbetriebe Luzern AG brings passengers forward. Throughout the whole Lucerne region, we bring people together who want to be together. We have an obligation to provide local public transport. We see ourselves as a public service company, offering transport services and market responsibility from a single source.”

Beat Nater, Works Manager, Verkehrsbetriebe Luzern AG

TRAPEZE GROUP

Trapeze Group works with public transport agencies and their communities to develop and deliver smarter, more effective public transport solutions. For more than 25 years we have been Here for the Journey, evolving with our customers around the world to helping them move people from point A to Z, and everywhere in between.

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