

# Data distribution always under control

## Depot Data Management LIO-DDM

Depot Data Management (LIO-DDM) is a data exchange platform developed by ebblo for bidirectional data transfer between the centre and the target devices. Target devices may be on-board computers and Multi-functional Displays in the vehicles or stop DPI signs. It is operated via a web application running in a browser.

ID	Gerätekat	Dateigruppe	Ver.	Datent
20	66316 MFD	Fz-SW-MFA	22	sw0
21	66323 MFD	Fz-SW-MFA	22	sw0
22	82875 BR	Akustik PAG	1	frm
23	87248 BR	Fz-FW-Fusion-Update	1	frm
24	87560 BR	Fz-FW-Fusion-Update	1	frm
25	88193 BR	Fz-FW-Fusion-Update	1	frm
26	92989 MFD	Fz-SW-MFA	22	sw0
27	96121 BR	OS update IPT	1	frm
28	97103 BR	OS update IPT	1	frm
29	97105 BR	OS update IPT	1	frm

The central system with the DDM database and the DDM backend application is connected to the depot servers (DDM frontend) in the individual depots via a network connection. The user connects to the DDM backend by using a web client at his local workstation that accesses the DDM web server in the centre.

### Data types and data transfer

The route network data, timetables, media files (MP3 announcements, picture files etc.) and map data to be distributed are transmitted to the depot servers by the centre. The depot servers upload the statistical data and logs to the centre.



Each depot has a number of access points through which wireless data exchange can be performed between the depot servers and the vehicles. When a vehicle enters the area of an access point, the vehicle establishes a connection to the DDM and data transfer starts by downloading the data and, in parallel with this, the defined load jobs are carried out in the DDM backend. Vehicles that rarely or never enter the depot can also load and download the data via Public Land Mobile Network, provided the appropriate infrastructure is available.

### Main functions of the DDM web client

The DDM client provides the user interface for operation of the DDM system. Since the DDM is accessed via a web interface, a separate client installation is not required but only a web browser and the necessary access authorisation. The main functions of the DDM system are the following:

- Operation of the application via the web browser
- Load/download data to/from the terminal equipment using Wi-Fi
- Instead of Wi-Fi, the Public Land Mobile Network (PLMN) can also be used for communication. The technology used – 2G, 3G or 4G – depends on the modem used.
- Load/download data of the dynamic passenger information via PLMN

- Automatic load jobs for data supply and media files
- Manual load jobs (data, software etc.) as required
- Delta data loading for reducing the loading time for data supply and media files
- Automatic loading of the current software and data supply
- Assignment of priorities to the data types during loading
- Monitoring of loading and distribution status and vehicle presence
- Administration of system parameters
- User management
- Definition of the distribution sets, distribution groups and distribution jobs
- Support of supply groups in the DDM
- Duplicate data management for the data supply

## Automatic download

In addition to manual data loading, there also is the function of automatic downloading of data supply and media files to the supply groups defined in LIO-Data. The DDM backend generates the necessary distribution sets and distribution jobs automatically during LIO-Data import.

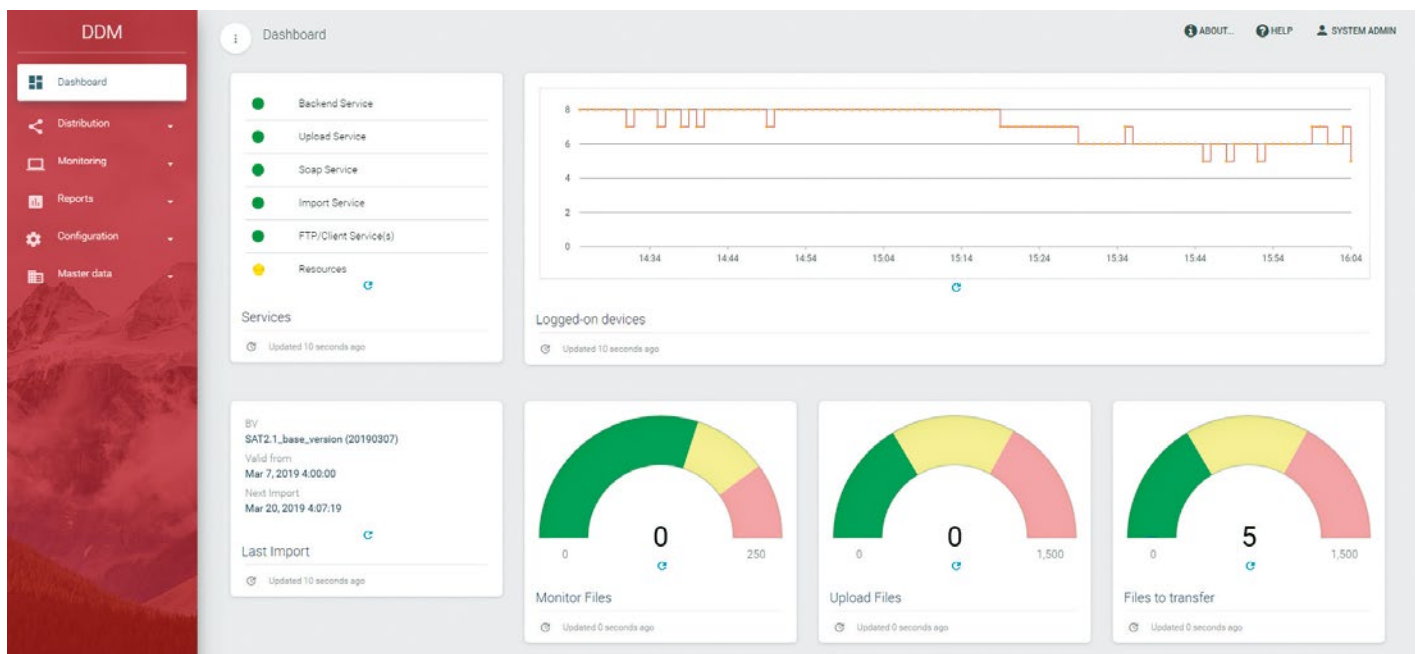
## Evaluation of the collected vehicle data

Reading in and transfer of the data to the evaluation modules of the LIO-BI Business Intelligence solution take place fully automatically.

## Technical data

### Hardware prerequisites

- Database server with Oracle version 19c
- Server for DDM backend
- Optional: Server for DDM frontend
- Access points for Wi-Fi
- On-board computer with Wi-Fi or PLMN
- DPI with PLMN or Ethernet connection



Dashboard

Subject to change without notice | Status February 2026 | #316414