



MOBILEcharge

Intelligent Charge Management

Take the step into e-mobility

We support you with the electrification of your bus fleet

Electric Mobility is playing an increasingly important role. Intelligent charge management is essential for the efficient and reliable operation of electric bus fleets.

Overview of the interfaces

On the back, you will find a detailed overview of the relevant interfaces in the field of electric buses and charge management. From charging infrastructure and communication protocols to








management systems, you will understand the key components and how they interact.

CarMedialab specializes in charge management for electric buses and offers innovative solutions to optimize the charging process and maximize vehicle availability.

More questions? Talk to our experts! Find out how the operation of your electric bus fleet can be simplified and improved.



Interfaces in electromobility

Interface	Interface Function	Data Flow	Advantage	Technology
OCPP	Standardizes communication between the bus charging stations and the central management system.	Charge Management ↔ Charging Station 	Integration of charging stations from different manufacturers into one charge management system.	IP, TCP, Websocket, SecureWebsocket
VDV 261	Pre-conditioning of the passenger compartment.	Charge Management ↔ Bus 	Air conditioning of the passenger compartment while the vehicle is still connected to the charging station. Less energy use on the road and therefore increased range. The energy required for pre-conditioning is included in the bus charging plan.	IP, TCP, HTTPS, V2ICP
ISO 15118 VAS	Pre-conditioning of the passenger compartment.	Charging Station ↔ Bus 	Air conditioning of the passenger compartment while the vehicle is still connected to the charging station. Less energy use on the route and therefore a longer range. The energy required for pre-conditioning is included in the bus charging plan.	HomePlug GreenPhy, IP, TCP, UDP, TLS, V2GTP
VDV 463 DMS	Transmits the departure times of the e-buses and information about the charging process back to the DMS.	Charge Management ↔ Depot Management 	The charge management receives precise information about the departure times of the buses and can thus create the optimal charging plan. Especially relevant for companies with depot chargers.	IP, TCP, Websocket, SecureWebsocket
VDV 463 ITCS	Transmits e-bus departure times to the charge management system and information about the charging process back to the ITCS.	Charge Management ↔ Control System 	The charge management receives precise information about the departure times of the buses and can thus create the optimal charging plan. Especially relevant for companies with depot chargers.	IP, TCP, Websocket, SecureWebsocket
MODBUS, IEC-61850	Live substation information, measurement information, status information.	Electricity supplier → Charge Management 	The system can monitor the actual power consumption as contractually defined and alert the user based on freely configurable threshold values.	RS485, ModbusTCP
VDV 238	Recording of vehicle data such as battery temperatures and improved smart charging.	Bus → Charge Management 	Independence from bus manufacturer systems and consistent data across fleets with different bus models.	CAN, J1939