

ABB Connected Services for Fleets

Enabling successful fleet charging operations



Fleet charging infrastructure must be optimized for the highest utilization and lowest downtime. This requirement demands that all charging assets are connected around the clock.

ABB's Connected Services platform meets that demand, incorporating a decade of experience with thousands of intelligent fast chargers deployed across the globe.

Charger Connect forms the basis of all Connected Services.

Network integrations, web tools and service agreements offer fleet customers scaled solutions for optimized asset usage and high uptime.

Charger Connect

Connected services baseline



Optional connectivity tools and services

Connected Services tailored to any fleet operation



Reliable connectivity



24/7 network monitoring by NOC



Software/Firmware updates



Activation in ABB service tools

OCPP and Autocharge

Flexible, interoperable network and fleet integrations

OCPP

Network integration



Autocharge

Plug and play authentication

Web tools

Browser based tools for real-time charger access



Status



Statistics



Settings



Access control



Advanced remote services

Charger services

for remote, field and technical support



Remote services, diagnostics, troubleshooting



Warranty and parts services



Custom services (Commissioning, training, testing)

Flexible OCPP integrations

Dual uplink for OCPP operation and Autocharge for plug and play authentication

Dual uplink offers the best of both worlds

ABB works with all major charging networks for pre-integrated OCPP solutions across many EV charger operations. ABB chargers can be operated using a direct OCPP connection while linking to advanced diagnostics not included with OCPP. The dual uplink connectivity concept provides a solution for fleets who wish to directly integrate chargers with their IT system via an OCPP network.

OCPP Integrations

OCPP

The Open Charge Point Protocol (OCPP) includes a broad set of messages with a wide range of functionality for enterprise telematics and usage data. The transaction-based set-up of the messages makes it easy to connect to a back-end system to process charging sessions, define usage models and handle data. Other possibilities include integration with apps, energy management protocols or parking management systems.

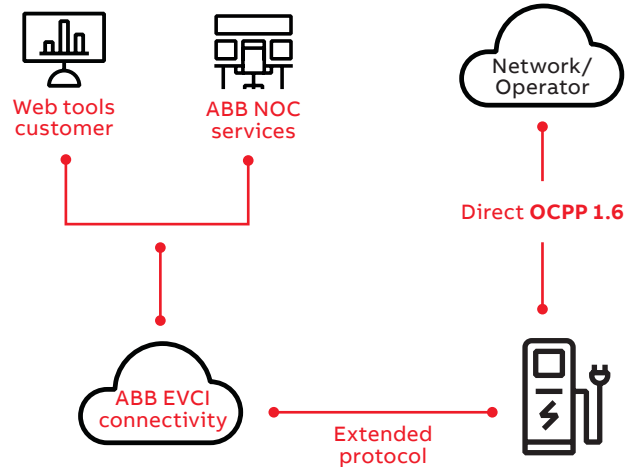
Autocharge: seamless plug and play authentication

ABB is an industry leader in developing plug and charge technologies. Coupled with an OCPP server, Autocharge offers fleets access control at the vehicle level.

Autocharge



EV fleets can leverage an Autocharge implementation to meet data and authentication needs seamlessly via an OCPP network integration. ABB supports the Autocharge standard for plug and play charging, eliminating manual authentication methods such as RFID cards and PIN codes. Implemented with OCPP, Autocharge offers fleet operators granularity of data on charging sessions per vehicle, enabling higher utilization and cost optimization of charging assets.



Better and faster support: Chargers connected to ABB's network operations center can achieve the fastest remote support from ABB network engineers. This leads to higher uptime of a charger network, minimizes the number of unplanned on-site visits, and significantly reduces overall operational costs.

Scalability and security: IT resources can scale in the ABB Ability cloud while connectivity monitoring is supported by ABB around the clock. ABB leverages Microsoft Azure based security with fewer backend connections to monitor.

Protocol implementation and vision

ABB is a leading industry voice in interoperability and has completed many OCPP integrations with the world's leading charging networks. ABB's software experts keep up with the latest global protocols and interfaces to back offices, roaming platforms and authentication solutions used in the EV charging industry. ABB is also active in solution developments for power management, smart grid and advanced demand response. With over 100 years of experience in building the world's power grids, ABB has the expertise to develop power management solutions for utilities and customers.

ABB Web tools

Monitor and manage chargers in real-time

ABB's browser-based web tools for online charger management provide fleet owners and operators with real-time information, statistics and remote service capabilities. These tools leverage enterprise data enriched with advanced configuration

features, case management and documentation. More advanced web tools enable component level remote repair activities, preventing costly site visits, reducing time to repair and minimizing operational costs.

Driver Care web tools



ABB's browser-based tools for monitoring and reporting can be used by operators without a back office, or as a monitoring tool in addition to a back office system.

Status



The status functionality provides a map view with real-time charger status information. It is possible to look up charger status view outlet availability, charging progress, errors and more.

Statistics



Statistics offer charger usage insights such as number of sessions, energy delivered, state of charge at start and end of sessions and detailed stop reasons. Statistics give an excellent quick glance on how the network is being used. Data can be exported for further processing.

Configuration



The configuration module allows for remotely configuring charger settings such as switching authorization on or off, setting maximum charge time, remote restarts and disabling or enabling chargers when desired.

Access management



The access control function is an easy way to manage charger access via RFID cards or PIN codes. The module can limit charger access for fleets, private or limited user communities. Transactions related to RFID card or PIN code usage can be exported for further analysis.

Cases and Notifications



The cases feature helps operators find quick answers, log cases for ABB network service support, and track resolutions. The notifications module allows operators to receive alerts when a charger reports a certain event.

Charger Care web tools



Charger Care is an advanced service tool for operators and service partners to do remote diagnostics, troubleshooting and repair with a broad set of data.

Remote monitoring and advanced diagnostics



Real-time insights at the component level such as the status of boards, monitoring of hundreds of parameters and settings such as cabinet temperature, humidity, software and hardware versions of each board.



Access to advanced settings and remote actions

The option to change parameters and configurations including rebooting individual boards.



Solution library and documentation

Access to a knowledge library containing solutions for the most common failure patterns reported by the charger. Using the error code, it is possible to get access to a related solution, which indicates troubleshooting guidelines, links to required documentation and if required to spare parts to fix the issue.



This extensive solution library incorporates a knowledgebase built up by ABB over the last decade while managing thousands of chargers around the world.



Charger Care training requirements

It is important to note that the Web tool Charger Care is a very advanced tool offering vast possibilities to service engineers. The tool delivers its full benefit when service engineers are trained by ABB on servicing ABB chargers. Please contact ABB for more information on the training requirements to be certified on advanced web tools.

ABB EV Infrastructure Services

Achieve the highest uptime and utilization with full support from an experienced partner



Remote services

ABB's Charger Connect 24/7 network operation serves as the baseline for ABB's in-house team of software engineers. Our experts perform remote monitoring, diagnostics and firmware updates to thousands of systems around the world. With remotely connected assets, operation and maintenance costs are significantly minimized. For example, ABB diagnoses more than 90% of service cases remotely, while solving over 60% of these cases without any on-site intervention.



Parts and warranty services

Extended warranties coupled with a pro-active service plan support reliable uptime and asset utilization, building higher value into hardware when standard warranties have expired. Additionally, an extended warranty package provides reassurance that costs are fixed at an all-inclusive price. ABB can also support fleet spare parts programs at any scale, ensuring recommended parts and components are readily available to reduce both planned and unplanned down time.



Training

ABB's team of experienced service and application engineers can conduct customized commissioning and service training programs for fleet customers that prefer to scale operational expertise from within their own organization or a third-party preferred services company. These programs can be tailored to content scope, location and size of training class.



Interoperability testing

As the EV market is constantly evolving with new models and manufacturers, every new vehicle requires interoperability testing to ensure seamless charging systems across a fleet of EVs. ABB's team of engineers can work with OEM and fleet customers to ensure new vehicle models connect to ABB chargers at any site. ABB has deep competency with OEM R&D development and custom services for interoperability testing and validation.

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