TOPBAND

T-EMS by Topband

Intelligent operating software for energy storage





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T-EMS:A flexible energy storage operating software

T-EMS is a hardware agnostic, flexible energy storage management system, built to adapt to ever changing power markets and revenue streams. With its unique layered architecture, T-EMS is able to achieve greater flexibility than most other energy management software products.

HARDWARE AGNOSTIC

T-EMS can be deployed with the hardware of your choice. This gives you complete hardware procurement freedom and prevents you from being locked in with a single OEM, while still achieving standardization of data and controls over your entire asset pool. Topband has been integrated seamlessly with over 50 battery and inverter makers to date and it's still growing.

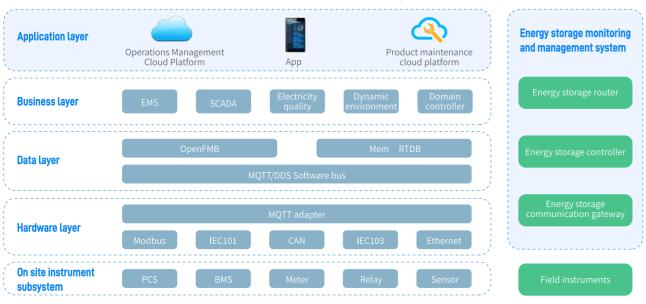
HIGHLY CUSTOMIZABLE

Every customer's energy storage application is different. Topband's layered approach and API driven architecture allows us to quickly create new operation philosophies to suit the customer's specific needs as power markets evolve and new revenue streams get generated. The user interface is also highly customizable to suit different use cases, battery types and asset configurations.

SEAMLESS TO INTEGRATE

Topband can be used with its own web based user interface, or integrated into any web-based software or SCADA platform that you currently use using REST APIs or standard protocols like MODBUS / DNP3 / IEC-61850 / IEC-104. Additionally, the APIs allow you full access to data and control endpoints to create your own control strategy as per your business needs.

EMS Architecture diagram





EMS controller

EMS controller is a local energy storage management system (hardware + software) that can be easily deployed with any of your existing or new energy storage assets which is independent from the underlying hardware.

EMS controller allows you to:

- Collect battery, inverter, load, grid and all other relevant site data in real time
- Manage energy storage operating limits, charge discharge set points, flexible loads, fire safety and thermal regulation to ensure your site runs safely from Day 1
- Run built-in active and reactive power control modes such as energy shift, peak shaving, PF improvement and many more
- Build custom control algorithms using TOPBAND's standardized REST API architecture
- Integrate data and controls into any third party DERMS / Central EMS / SCADA software over a variety of protocols

Topband-Server

TOPBAND-Server is a cloud-based software platform that helps you to remotely monitor, analyse and control all your distributed energy resources.

TOPBAND-Server allows you to:



Generate a standardized data and controls format across your diverse DER fleet



Analyse individual as well as aggregated site performance metrics



Create a virtual power plant and remotely control all your DERs from a single platform



Analyse battery health, performance and track predicted battery lifetime



Manage non co-located wind + solar RE assets as a single hybrid power plant



Track battery warranty terms regarding throughput, operating limits and more

TOPBAND-Server can be used with its own web-based user interface, or the APIs can be integrated into any web based software that you currently use. The entire system can be hosted either on the cloud or an on-premise server, as per your requirements.