



Protection, Substation Automation & Network Control
Substation Automation Products

REB500 talks IEC 61850



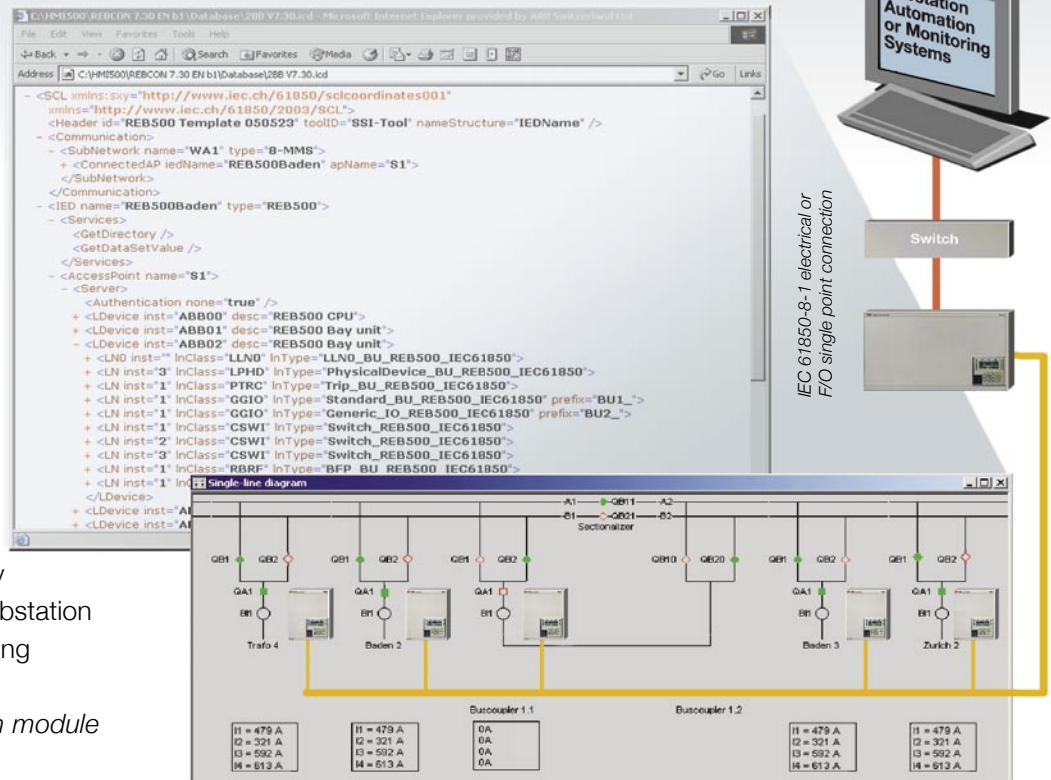
Verified IEC 61850 conformance

Based on the vast experience in protection and substation automation (SA) as well as the expertise in IEC 61850, ABB has fully implemented the new standard in its products, systems and tools. To verify the proper implementation of IEC 61850 throughout its portfolio, ABB has established a System Verification Centre (SVC). Each and every product, system component, application and tool is tested in a real-life system environment to prove its appropriate working and performance—functionally and interactively. Complete systems are verified to ensure they fully meet the requirements in terms of communication, integration, functionality and performance.

The benefits of the IEC 61850-8-1-compliant REB500 busbar and breaker failure protection system at a glance:

- Fully verified implementation of the new global standard
- Easy integration with IEC 61850-based station automation and monitoring systems
- Easy access to system-wide data and information through the central unit
- Future-proof design with reserves for functional and other extensions
- Easy data exchange with IEC 61850-compliant systems and tools

The well-proven REB500 busbar and breaker failure protection system features full IEC 61850-8-1-compliance for:



- Easy integration with any IEC 61850-compliant substation automation and monitoring system by simply
 - adding a communication module in the central unit
 - importing the SCL-based ICD file generated by HMI500
- User-specific design of the communication system through the support of optical and electrical Ethernet connection
- Consistent and user-understandable data through the use of SCL, the object-oriented data model and its semantics

The IEC 61850-8-1 communication interface supports easy access to system-wide data and information through the central unit and provides:

- Time synchronization via SNTP with a typical accuracy of +/- 1ms

- Support of two independent time servers, i.e. Server 2 for backup time
- Optical or electrical connection
- Single connection point to REB500 central unit
- Monitoring information from REB500 central unit and bay units
- **Data exchange:**
 - Differential current of each protection zone
 - Binary events (signals, trips and diagnostics)
 - Trip reset command
 - Access to disturbance records via MMS file transfer protocol

- Export of ICD-file, based on the Substation Configuration description Language SCL
- The communication module also supports the LON and IEC 60870-5-103 protocols.**

To ensure efficient management of IEC 61850 projects, ABB offers comprehensive services throughout the value chain, from specifying to commissioning and from maintenance to system extension or upgrade. We combine global experience with local presence to offer competent service within easy reach of our customers worldwide.

For more information please refer to the responsible ABB sales engineer for your country or to the address mentioned below.



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