

61850 PLUS

IEC 61850 for Embedded Systems



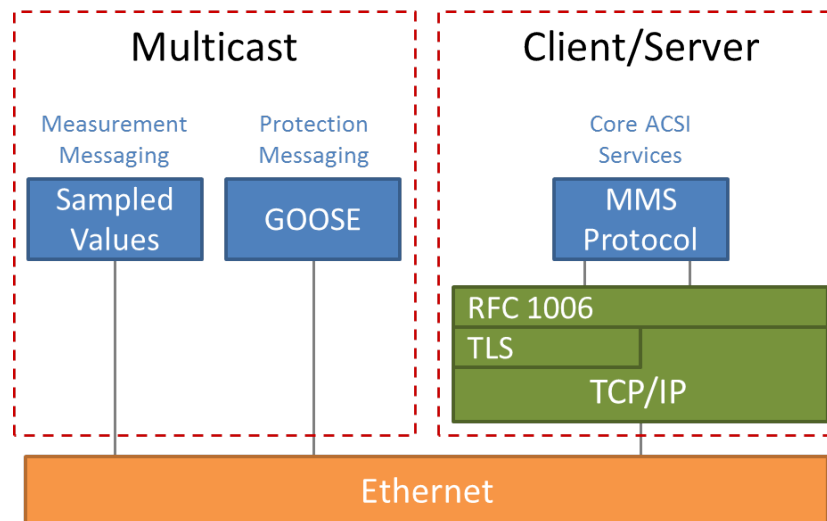
OVERVIEW

61850 PLUS (formerly MMS Lite) is a source code product that will let you get your IEC 61850 Intelligent Electronic Devices (IEDs) up and running quickly using a robust field-proven implementation that is widely deployed in operational devices such as RTUs, relays, reclosers, PLCs, tap changers, meters, and other resource-constrained systems.

61850 PLUS is easily portable to ANY operating system and CPU type supporting an ANSI C compiler. It supports everything needed to implement IEC 61850 client and server applications and devices using setting groups, data, datasets, logs, buffered and unbuffered reporting, controls, standardized and custom logical nodes, GOOSE, R-GOOSE, and multicast sampled values (process bus).

61850 PLUS significantly reduces development effort and time for the efficient and portable implementation of IEC 61850, which includes support for:

- Logical nodes and data for substation, wind, hydroelectric, and distributed energy resources
- High-speed automation and tripping via GOOSE or R-GOOSE
- CT/VT sharing through sampled values
- Wide-area communications using R-GOOSE and R-SV over IP Multicast
- Security extensions for client/server functions



BENEFITS

- Easily portable to most platforms
- Regular updates implementing IEC resolutions to pass UCAlug testing
- Easy-to-use code, sample applications, training, and support provided
- Maximum performance with minimal CPU and memory requirements
- Device configuration via SCL files
- Flexible licensing options

OVERVIEW

As industry concern for the security of large-scale power systems increases, the need to implement secure communications that can prevent unauthorized access to the power system functions becomes more critical. To support these needs, SISCO has developed a set of security extensions that provides robust and secure IEC 61850 communications using 61850 PLUS. These security extensions implement certain client/server functions of IEC 62351 to ensure the privacy and authentication of power system communications.

FEATURES

- Certificates support for 1024-bit, 2048-bit, and optionally 4096-bit RSA keys
- ECC certificates support for secp256r1 and brainpoolP256r1 curves
- TLS-based encryption
- Renegotiated symmetric keys
- Anti-replay functions
- Requires OpenSSL
- Support for End-to-End (E2E) security profile
- Support for R-GOOSE and R-SV security (excluding GDOI)

61850 PLUS (continued)

FEATURES

- Automation for 61850 reports, GOOSE, general interrogation, and logging
- Portable to any operating system supporting ANSI C
- Asynchronous and synchronous programming support
- Scalable (*tested to 500 connections with security)
- Comprehensive global product support and maintenance
- User-manageable and modifiable source code

COMPLIANCE TO IEC STANDARDS

- 61850-6: Substation Configuration Language
- 61850-7 Series: ACSI Services & Data Objects
- 61850-8-1: Client/Server using MMS and GOOSE Multicast
- 61850-9-2: Sampled Measured Values
- 61850-7-410: Hydro Power Models
- 61850-7-420: Distributed Energy Resources
- 61850-90-5: Wide Area Measurement Protection & Control
- 61400-25-2: Wind Power Models