

MMS Lite

IEC 61850 for Embedded Systems



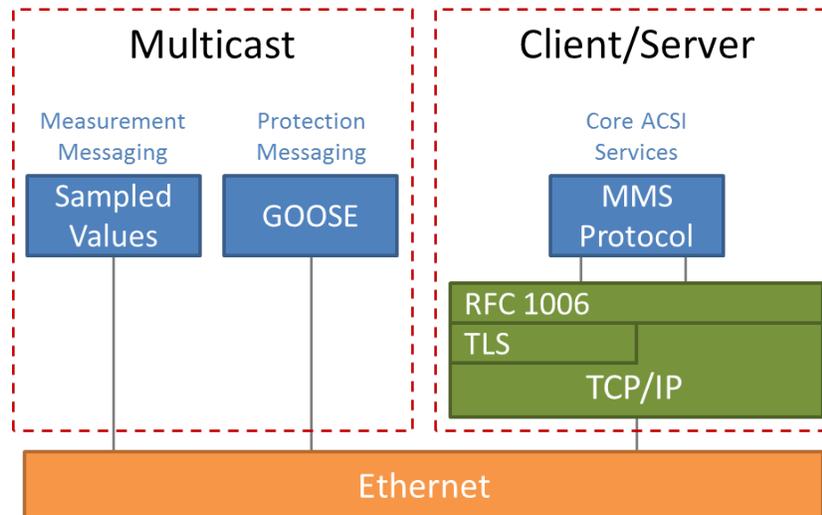
OVERVIEW

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.

MMS Lite is easily portable to ANY operating system and CPU type supporting an ANSI C compiler. MMS Lite 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).

MMS Lite 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 Tissue 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 MMS Lite. These MMS Lite 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)

MMS Lite (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