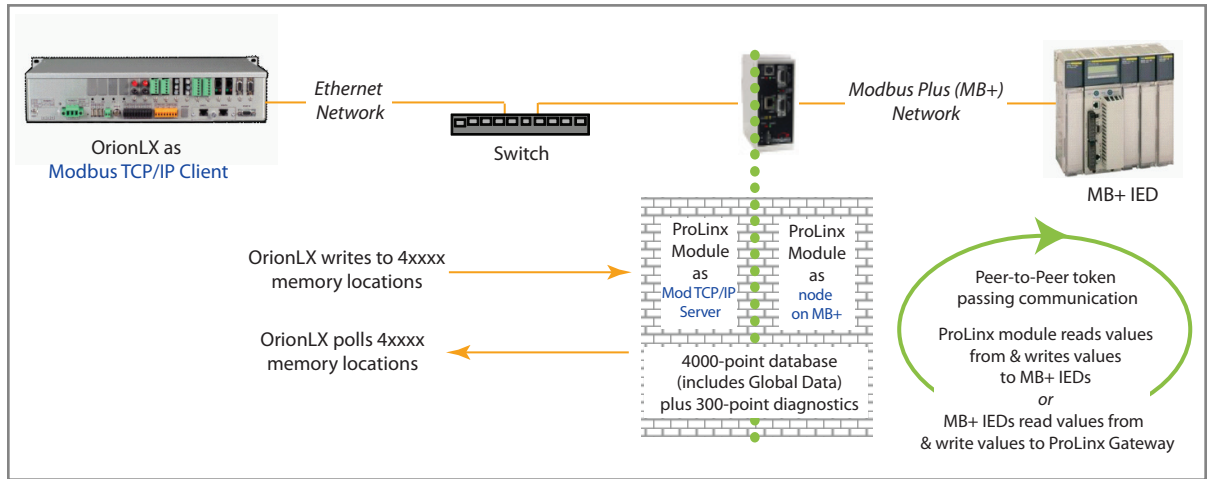


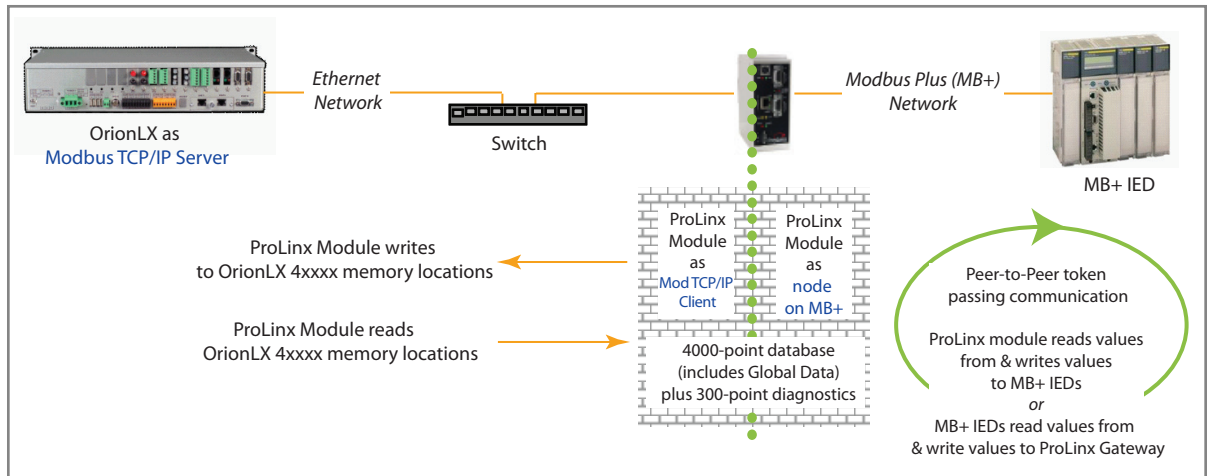
This document summarizes an interface (physical, communication, software) between the OrionLX Automation Platform and a third party product. This interface has been set up and tested by NovaTech and can be supported by NovaTech Applications Engineering.

OrionLX connectivity to Modbus Plus (MB+) devices can be accomplished through the use of the ProSoft Technology ProLinX 5303-MBP-MNET Modbus Plus to Modbus TCP/IP Communication Gateway. Both Modbus TCP/IP Client (Master) and Server (Slave) modes are supported by the gateway, as illustrated below:

Master



Slave



ProLinX 5303-MBP-MNET Modbus Plus to Modbus TCP/IP Gateway Hardware Specifications

- 24V dc, nominal, 18V dc to 36V dc acceptable range
- Draws 500 mA at 24 Vdc
- -4°F to +122°F (-20°C to +50°C) operating temperature
- Dimensions: 5.20 inches High x 2.07 inches Wide x 4.52 inches Deep



The ProLinx module provides:

- One serial configuration port for upload and download
- One RJ45 Ethernet port with Modbus TCP/IP Ethernet protocol (MBAP on Service Port 502; Encapsulated Modbus on Service Port 2000)
- Dual Modbus Plus ports (ports are hardware-redundant, not independently configurable.)

ProLinx #5303-MBP-MNET Protocol Support

Modbus Plus

- 64 nodes supported with up to 5 route path entries per node
- Global In data supported
 - 64 nodes with 32 16-bit 4x registers maximum per node
- Global Out data supported
 - Up to 32 16-bit 4x registers maximum output from the gateway node
- Supports reading and writing only 4x Holding Registers (Modbus Function Codes 3 & 16)

Please note: Bit reads and writes are not supported in the current Modbus Plus driver.

Modbus TCP/IP – Supports Client (Master) and Server (Slave) functions

- Supports Function Codes 1, 2, 3, 4, 5, 6, 15, & 16; for binary and word reads and writes
- Simultaneously supports up to 5 Servers on Service Port 502 and up to 5 Servers on Service Port 2000
- Offers one Client with up to 200 configurable commands to poll other Servers on the Modbus TCP/IP network; may mix commands to Service Port 502 or 2000

Application Notes

- Data is exchanged between networks by reading from, writing to, and storing in the gateway’s memory database, which holds 4000 16-bit words of user application data.
- Requires configuration and record-keeping to cross-map Modbus TCP/IP and Modbus Plus.
- “Industrial” ratings: 24V dc powered and -4°F to +122°F operating temperature.

Ordering

The ProLinx 5303-MBP-MNET Modbus Plus to Modbus TCP/IP Gateway can be ordered from NovaTech in Lenexa, Kansas at (913)451-1880 or from a ProSoft distributor (www.prosoft-technology.com). The material in this document was obtained from the latest ProSoft documentation. For more information please contact ProSoft at (661)716-5100.

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