Technical data
MTL industrial security

September 2016
EPS MBT-LSM rev6

CROUSE-HINDS
SERIES

MTL Tofino™ modbus TCP enforcer LSM
Content Inspection for Modbus

Modbus master

Modbus slave

Modbus TCP enforcer
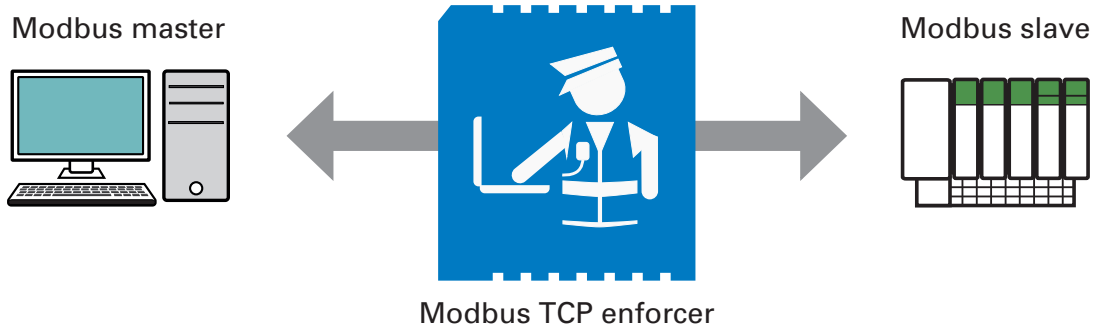
Advanced cyber threat and safety protection for your Modbus devices

Did you know that any device with a network connection to a Modbus controller can potentially CHANGE any of the controller's I/O points or register values? Many controllers can even be reset, disabled, or loaded with new logic or firmware.

The MTL Tofino Modbus TCP Enforcer is a content inspector for Modbus communications, checking every Modbus command and response against a list of 'allowed' commands defined by your control engineers. Any command that is not on the 'allowed' list, or any attempt to access a register or coil that is outside the allowed range, is blocked and reported.

The MTL Tofino Modbus TCP Enforcer makes sure that the only Modbus commands your control devices receive are approved commands from approved computers. Accidents involving remote programming are prevented and corrupted messages are blocked, making your control system safer and more reliable.

Saves you money through:

- Simplifying compliance to safety and security standards.
- Reduced down time and production losses.
- Lower maintenance costs.
- Improved system reliability and stability.

Unique capabilities:

- First-ever application of content inspection technology to industrial protocols.
- Control specialist defines list of allowed Modbus commands, registers and coils.
- Automatically blocks and reports any traffic that does not match the rules.
- Protocol 'Sanity Check' blocks any traffic not conforming to the Modbus standard.
- Supports multiple master and slave devices.
- Simple configuration and monitoring using the MTL Tofino Configurator GUI.
- Certified Modbus compliant by Modbus-IDA.

Applications

- Oil & gas custody transfer.
- Safety instrumentation systems.
- Managing PLC programming stations.
- Display-only HMI panels.
- Partner access to telemetry data.

Powering Business Worldwide

MTL Tofino™ modbus TCP enforcer LSM

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FEATURES & SPECIFICATIONS

Supports multiple connections	Multiple master and slave Modbus devices are supported, with a unique set of inspection rules and options for each master/slave connection.
Default filter policy	Deny by default: any network traffic that is not on the 'allowed' list is automatically blocked and reported.
Modbus function codes	Supports functions 1-8, 11-17, 20-24, 40, 42, 43, 48, 66, 67, 91, 100, 125, 126.
User-settable options	The following options may be set on a per-connection basis: • Permitted Modbus function codes. • Permitted register or coil address range. • Permitted Modbus Unit IDs. • Sanity check enable/disable. • State tracking enable/disable. • TCP Reset on blocked traffic (when utilizing TCP transport protocol). • Modbus exception reply on blocked traffic.
Transport protocols	Both Modbus/TCP and Modbus/UDP supported.
Configuration method	Simple configuration using the MTL Tofino Configurator (TC).
Throughput	1000 packets per second with full content inspection.
Operating modes	All standard MTL Tofino modes supported: • Passive: all traffic allowed, no alerting. • Test: all traffic allowed; alerts generated as per user rules. • Operational: traffic filtered and alerts generated as per user rules.
Security alerts	Reports security alerts to a syslog server and to non-volatile memory on a MTL Tofino Security Appliance.
Certifications	Certified Modbus compliant by Modbus-IDA.
System requirements	• MTL Tofino Security Appliance. • MTL Tofino Firewall LSM. • MTL Tofino Configurator (TC).
Ordering information	Part number: **9522-MBT** Name: **MTL Tofino™ Modbus TCP Enforcer LSM** Visit: **www.mtl-inst.com/tofino for ordering info for all products.**

The **MTL Tofino™ Firewall LSM** is a component of the **MTL Tofino™ Industrial Security Solution**

MTL Tofino Security Appliance

Hardware platform that creates Plug-n-Protect™ zones of security on control and SCADA networks.
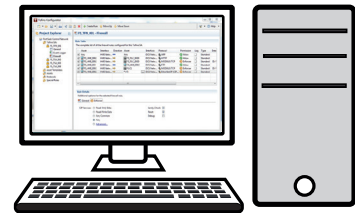

Loadable Security Modules

Firmware modules that customize the security features of each MTL Tofino SA:

- **Firewall:** Directs and controls industrial network traffic.
- **Modbus, OPC, and EtherNet/IP Enforcers:** Ensure compliance, manage connections, and restrict ICS SCADA commands.
- **NetConnect:** Provides secure remote configuration over any IP-based network.
- **Event Logger:** Reliably logs security events and alarms.

MTL Tofino Configurator

Software that provides coordinated security management of all MTL Tofino Security Appliances from one workstation or server.

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