Technical data
MTL industrial security

February 2017
EPS EIP-LSM rev3

CROUSE-HINDS
SERIES

MTL Tofino™ ethernet/IP enforcer LSM
Content inspection for ethernet/IP

Ethernet/IP client

Ethernet/IP server

Ethernet/IP enforcer
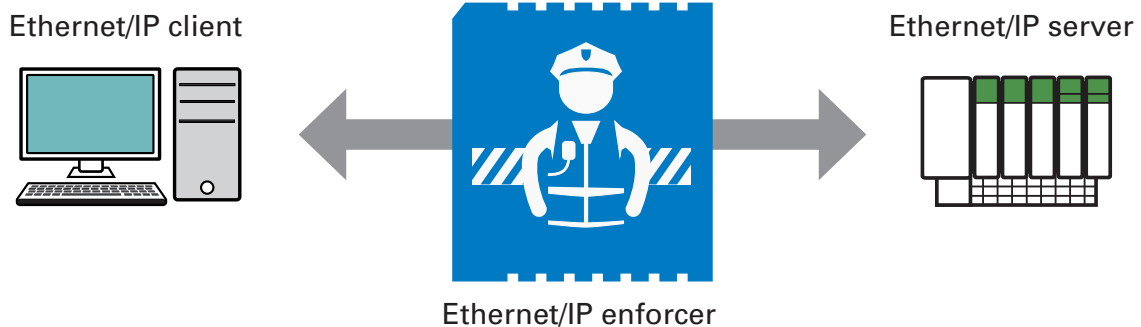
Advanced cyber threat and safety protection for your EtherNet/IP devices

EtherNet/IP and CIP are excellent protocols for managing Industrial Control Systems (ICS). Unfortunately, they were never designed with security in mind. If an individual is allowed to read data from a controller, then chances are they can also shut down or reprogram the controller.

The MTL Tofino EtherNet/IP Enforcer Loadable security Module (LSM) is a content inspector for EtherNet/IP communications, checking every message against a list of 'allowed' objects and services. You can choose from pre-defined lists of common actions, such as Read-Only, or you can build your own custom list of objects and services. Any service that is not on the 'allowed' list, or any attempt to access an object that is not approved, is blocked and reported.

The MTL Tofino EtherNet/IP Enforcer LSM makes sure that the only messages 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:

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

Unique capabilities:

- Simple configuration using the MTL Tofino configurator's graphical user interface.
- One-click setup for secure 'read-only' communications to controllers.
- Protocol 'Sanity Check' blocks any traffic not conforming to the ODVA standards.
- Supports multiple EtherNet/IP clients and servers.
- Control specialists can optionally define lists of allowed CIP objects and services.
- Automatically blocks and reports any traffic that does not match the rules.
- Secures all EtherNet/IP CIP Class 3 Explicit messaging.

Typical applications

- Mission critical automation systems.
- Protecting safety instrumentation systems.
- Managing PLC programming stations.
- Display-only HMI panels.
- Secure remote access to PLC data.

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MTL Tofino™ ethernet/IP enforcer LSM

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FEATURES & SPECIFICATIONS

Supports multiple connections	Multiple client and server EtherNet/IP devices are supported with a unique set of inspection rules and options for each client/server connection.
Default filter policy	Deny by default: any CIP object or service that is not on the 'allowed' list is automatically blocked and reported.
User-settable options	The following options may be set on a per-connection basis: • Permitted message type (Read-Only Data, Read/Write Data, Any, Advanced). • Permitted CIP object class. • Permitted CIP service for each class. • Custom or vendor-specific objects and services. • Sanity check enable/disable. • TCP Reset on blocked traffic. • EtherNet/IP debug reply on blocked traffic.
Supported message types	All CIP class 3 explicit messages.
Configuration method	Simple configuration using the MTL Tofino configurator.
Throughput	1000 packets per second with full content inspection.
Operating modes	All standard MTL Tofino modes supported: • 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.
Tested equipment	Tested for use with all Rockwell ControlLogix and Schneider PLCs.
System requirements	• MTL Tofino Security Appliance. • MTL Tofino Firewall/Event Logger LSM. • MTL Tofino Configurator.
Ordering information	Part number: **9522-EIP** Name: **MTL Tofino™ EtherNet/IP Enforcer LSM** For additional information visit: **www.mtl-inst.com/tofino for ordering info for all products**

The **MTL Tofino™ EtherNet/IP Enforcer LSM** is a component of the **MTL Tofino™ Industrial Security Solution**

Tofino Security Appliance

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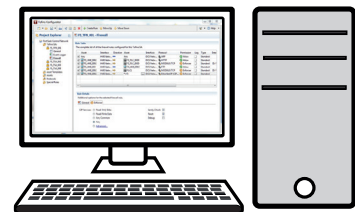

Loadable Security Modules

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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