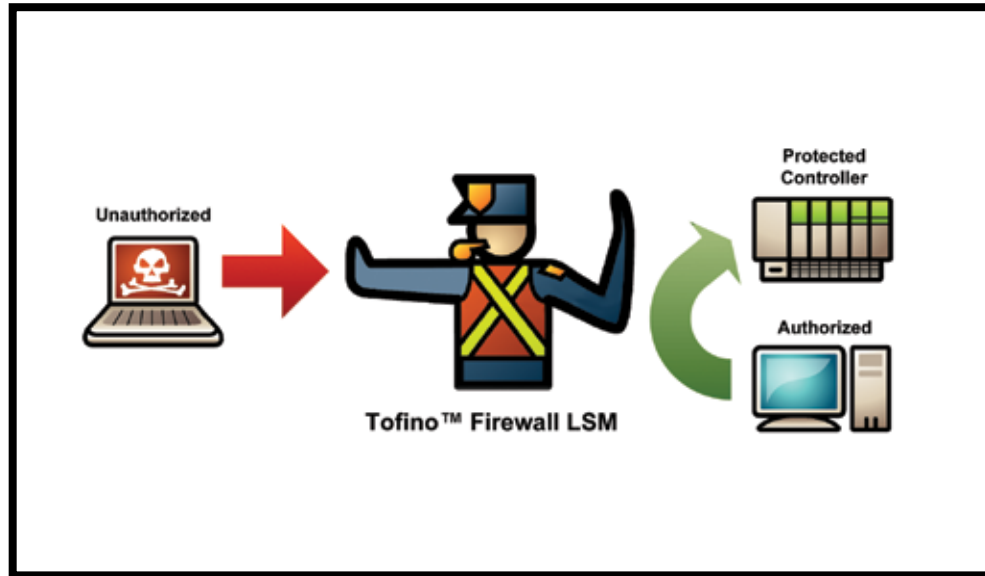# TOFINO SECURITY

A **BELDEN** BRAND

PB 1086TAG

Tofino™ Firewall Loadable Security Module (LSM)

A stateful firewall built into the Tofino Security Appliance to direct, control, and secure industrial network traffic.

The Tofino Firewall LSM is like a traffic control cop for industrial networks, checking all communications on your control network against a list of traffic "rules" defined by your control engineers.

FROST & SULLIVAN

2010 World Customer Value
Enhancement Award
tofinosecurity.com/awards

Take Control of Your Network Traffic

The vast majority of control networks have little or no isolation between different subsystems. If a device misconfiguration, hardware failure, or virus causes a problem in one part of the network, it can spread throughout the entire network in seconds and bring your whole plant down. Even redundant backup systems can fail simultaneously if their network connections are not protected.

The Tofino Firewall LSM is like a traffic control cop for industrial networks, checking all communications on your control network against a list of traffic 'rules' defined by your control engineers. Any communication that is not on the 'allowed' list will be blocked and reported by the Tofino Firewall LSM.

Traffic rules are created using terms and concepts that are already familiar to control specialists. And the unique 'test' mode of Tofino lets you test your rules without any risk to plant operation.

Saves you Money Through:

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

Unique Capabilities:

- Traffic rules are defined by your control team, specifying which devices may communicate using what protocols
- Simple configuration using the Tofino Configurator's graphical user interface
- Traffic that does not match the rules is automatically blocked and reported
- Over 125 pre-defined IT and industrial communication protocols
- Over 180 pre-defined security templates for common controllers, drives, HMIs and network products
- Pre-defined 'special rules' for advanced traffic filtering and vulnerability protection

Applications

- Isolate critical devices from threat sources
- Separate control networks into security 'zones', restricting communications between zones
- Protect controllers with known vulnerabilities

Be certain.

Tofino Firewall LSM

Features and Specifications

Type	Description
Protects multiple devices	Hundreds of different device types are supported with unique rate control, direction, and permission settings for each allowed connection
Filter policy	Deny by default: any network traffic that is not on the 'allowed' list is automatically blocked and reported
State tracking	Stateful Packet Inspection (SPI)
User-settable options	IP-based protocols: • *Source device*: specific IP address, network, or 'any' • *Destination device*: specific IP address, network, broadcast, multicast, or 'any' • *Application protocol*: any combination of single, list, and/or range of port numbers • *Direction*: incoming, outgoing, bidirectional Both IP-based and non-IP protocols: • *Permission*: allow, deny, allow/log, deny/no log • *Logging*: allow, deny, allow/log, deny/no log • *Rate limit controls*
Transport protocols	TCP, UDP and non-IP protocols supported
Configuration method	Simple configuration using the Tofino Configurator
Operating modes	All standard 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 blocked traffic to a syslog server and to non-volatile memory on a Tofino Security Appliance
Certifications	• MUSIC 2009-1 security certified (Foundation level) • Certified Modbus compliant by Modbus-IDA
System requirements	• Tofino Security Appliance • Tofino Configurator
Ordering information	Part number: **942 016-110** Name: Tofino™ Firewall LSM For additional information, visit **www.belden.com/resourcecenter**

Tofino™ Firewall LSM is a component of the Tofino 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 Tofino SA:

- **Firewall**: Monitors and secures 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

Tofino Configurator

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

Tofino Firewall LSM | PB1086TAG_INET_TOF_514_A_AG