



TOFINO™ ENFORCER REVOLUTIONIZES MODBUS TCP/IP SECURITY

New Modbus-IDA Certified Security Solution Addresses Government Security Concerns for SCADA

Oct 14, 2008 – ISA Expo, Houston, Texas. For the first time in the history of industrial automation, a security module designed specifically for managing the leading SCADA protocol, Modbus TCP, is commercially available. Byres Security Inc. and MTL Instruments, a division of Cooper Crouse-Hinds, today are introducing the Tofino™ Modbus TCP Enforcer Loadable Security Module (LSM), which performs detailed analysis and filtering of all Modbus TCP messages, and is certified by Modbus-IDA. It allows owners of control and SCADA systems to regulate Modbus network traffic to a level of detail that has never before been possible, thereby increasing network security, reliability and performance of critical systems.

“Deep packet” or “content” inspection for web email or traffic has been offered in IT firewalls for several years, but nothing has been available for the process control or SCADA world. Modbus traffic could either be allowed or blocked by a standard firewall, but fine-grained control was impossible. And since the smooth flow of Modbus TCP traffic is critical to the average industrial facility, engineers usually opted to let everything pass and take their chances with security.

Industry experts have been urgently calling for better control of SCADA protocols. This spring a major US Government agency warned major energy companies:

“A vulnerability has been identified and verified within the firmware upgrade process used in control systems deployed in Critical Infrastructure and Key Resources (CIKR)... development of a mitigation plan is required to protect the installed customer base and the CIKR of the nation. Firmware Vulnerability Mitigation Steps [includes] blocking network firmware upgrades with appropriate firewall rules.”

Two major energy companies and a major transportation company have trialed the Tofino™ MODBUS/TCP Enforcer LSM and have been very excited with how it allows them to follow the government’s guidance and enhance both the security and stability of their systems. They have been able to restrict Modbus functions in numerous ways:

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- ✎ Blocking all firmware upgrades, while allowing normal HMI traffic.
- ✎ Tailoring appropriate Modbus access permissions to PLCs for different stations, such as read-only for monitoring panels, read/write for HMIs, and full programming and diagnostics access for PLC engineering workstations
- ✎ Restricting Modbus access permissions to specific memory locations in a controller
- ✎ Providing enhanced security and protection for any Modbus TCP device, including filtering of invalid traffic that could cause denial of service or system failures
- ✎ Enforcing read-only access to Safety Instrumented Systems for enhanced isolation and safety

“The ModbusTCP Enforcer is another key step in our Tofino™ Zone Level Security™ strategy”, notes Eric Byres, CTO at Byres Security Inc. “Tofino™ provides tailored protection for groups of PLCs, DCSs RTUs and HMIs and does it in a way that is simple to implement for control engineers. Security is taken care of, and focus can be maintained on keeping processes running safely and efficiently.”

Pricing and Availability

The Tofino™ Modbus TCP Enforcer LSM is available worldwide as of Oct 14, 2008 from **MTL Instruments**. The retail price of the product is \$500 USD.

A Tofino™ Security Appliance (SA) (retail prices \$1,000), a Tofino™ Firewall LSM (retail price \$200) and Tofino™ Central Management Platform (CMP) (retail price \$3,500) are required for the complete system. One CMP can manage many SAs with LSMs.

Find out more at ISA Expo 2008, Oct 14-16, Houston, Texas

- Attend the presentation “**Modbus Security Made Easy**”, presented by Eric Byres:
 - Tues Oct 14th at 2:00pm in the Bus Station Theatre, Booth 1022
 - Wed Oct 15th at 12:00pm in the Security Exchange Theatre, Booth 1142
 - Wed Oct 15th at 3:30pm in the Bus Station Theatre, Booth 1022
- See the product demonstrated at the Modbus -IDA Booth 1128, or the MTL Instruments Group Booth, 1342

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About the Tofino™ Industrial Security Solution

The complete Tofino™ Industrial Security Solution consists of three core components:

Tofino™ Security Appliance – an industrially hardened and certified appliance that is installed in front of individual and/or zones of HMI, DCS, PLC or RTU control devices that require protection. Retail price: \$1,000 USD.

Tofino™ Loadable Security Modules (LSM) – a variety of software plug-ins providing security services such as firewall, secure asset management and VPN encryption. Each LSM is downloaded into the security appliances to allow them to offer customizable security functions, depending on the requirements of the control system. Retail price: varies by LSM, between \$200 and \$500 USD.

Tofino™ Central Management Platform (CMP) – a centralized management system and database for monitoring, supervision and configuration of each security appliance, regardless of its physical location. Retail price: \$3,500 USD. One Tofino™ Central Management Platform can manage from one to many Tofino™ Security Appliances and LSMs.

About ByresSecurity Inc.

Byres Security Inc. develops industrial security technologies for critical infrastructure companies in the oil and gas, power, chemical and manufacturing sectors. Its flagship product, the Tofino™ Industrial Security Solution, is a unique hardware and software security system that provides Zone Level Security™ (ZLS™) – tailored, protection for zones of control devices. Tofino is simple to implement, does not require downtime, and takes care of security while focus is maintained on keeping processes running safely and efficiently.

About MTL Instruments

MTL Instruments, a division of Cooper Crouse-Hinds, is a world leader in the development and supply of electronic instrumentation and protection equipment for the process control and telecommunications industries. Many of the world's most critical processes are monitored, controlled or protected by MTL equipment and the Group is distinguished by the quality and reliability of its products, its global network of sales-and-support centres and its acknowledged position as a thought-leader in this high technology marketplace. With 36 dedicated sales centres in 13 countries and a further 137 MTL representatives in 64 countries, MTL's expertise in Intrinsic Safety, Industrial Networks, Surge Protection and Operator Displays/HMI is unsurpassed.

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About Modbus-IDA

Modbus-IDA is a group of independent users and suppliers of automation devices that seeks to drive the adoption of the Modbus communication protocol suite. The organization provides the infrastructure for obtaining and sharing information about the protocols and their application. Modbus-IDA engages in a broad range of activities relating to the maintenance and proliferation of the Modbus protocol, including:

- Participation in standards activities worldwide, leading the evolution of the Modbus protocol and its variants.
- Encouraging and assisting in the use of Modbus across a broad spectrum of physical layers and transmission media.
- Maintaining and evolving a conformance testing program to ensure greater interoperability of Modbus devices.
- Providing information to users and suppliers to help them be successful in their use of Modbus.
- Engaging in educational and promotional efforts including trade shows, newsletters, a website, and other outreach activities

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