



## Terafence MBsecure+

### Where Every IoT Counts

Terafence is proud to present a unique and secure solution for distributing SCADA information between networks of different security classifications.

Supervisory Controls and Data Acquisition (SCADA) protocols are communication protocols designed for the exchange of control messages on industrial networks. Over the past three decades, several hundreds of these protocols have been developed for serial, LAN, and WAN-based communications in a wide variety of industries including petrochemical, automotive, transportation, and electrical generation/distribution.

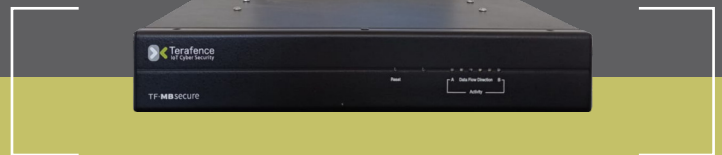
SCADA Protocols (i.e. Modbus, Syslog, OPC etc) are the most widely used SCADA Protocol.

Terafence MBsecure+ allows network architects to interconnect network segments of unequal security classification without exposing the secure network to hacking attacks. The secure network (or segment) is physically ISOLATED (at OSI Layer 1/2) from the lesser secure segment. Data is transmitted downstream untouched.

Terafence MBsecure+ gateway acquires The required protocols data from sensors and PLCs over TCP/IP and responds to the HMI with the acquired data. At no time network access is available to the PLC from any device on the HMI network side.

The ISOLATION of the PLC / Sensor is done at Osi layers 1/2, the physical layer by a physical device.

ISOLATION is hardware based and has no CPU, no software, no IP address or MAC address



#### Basic Features:

- Up to 247 Modbus devices supported per unit
- Full Modbus RTU support
- Syslog Support
- MQTT Support
- SMTP Support
- OPC DA/UA Support\*
- DNP3 Support\*
- BACnet Support\*
- Multiple HMI units support
- Hardware Reset to factory defaults
- High Availability (unit redundancy)

\* Future release

#### Security Features:

- Physical ISOLATION at OSI Layer-1/2
- Secure unit access (HTTPS) with encryption keys
- Configurable HMI list to provide access restriction

#### Managment:

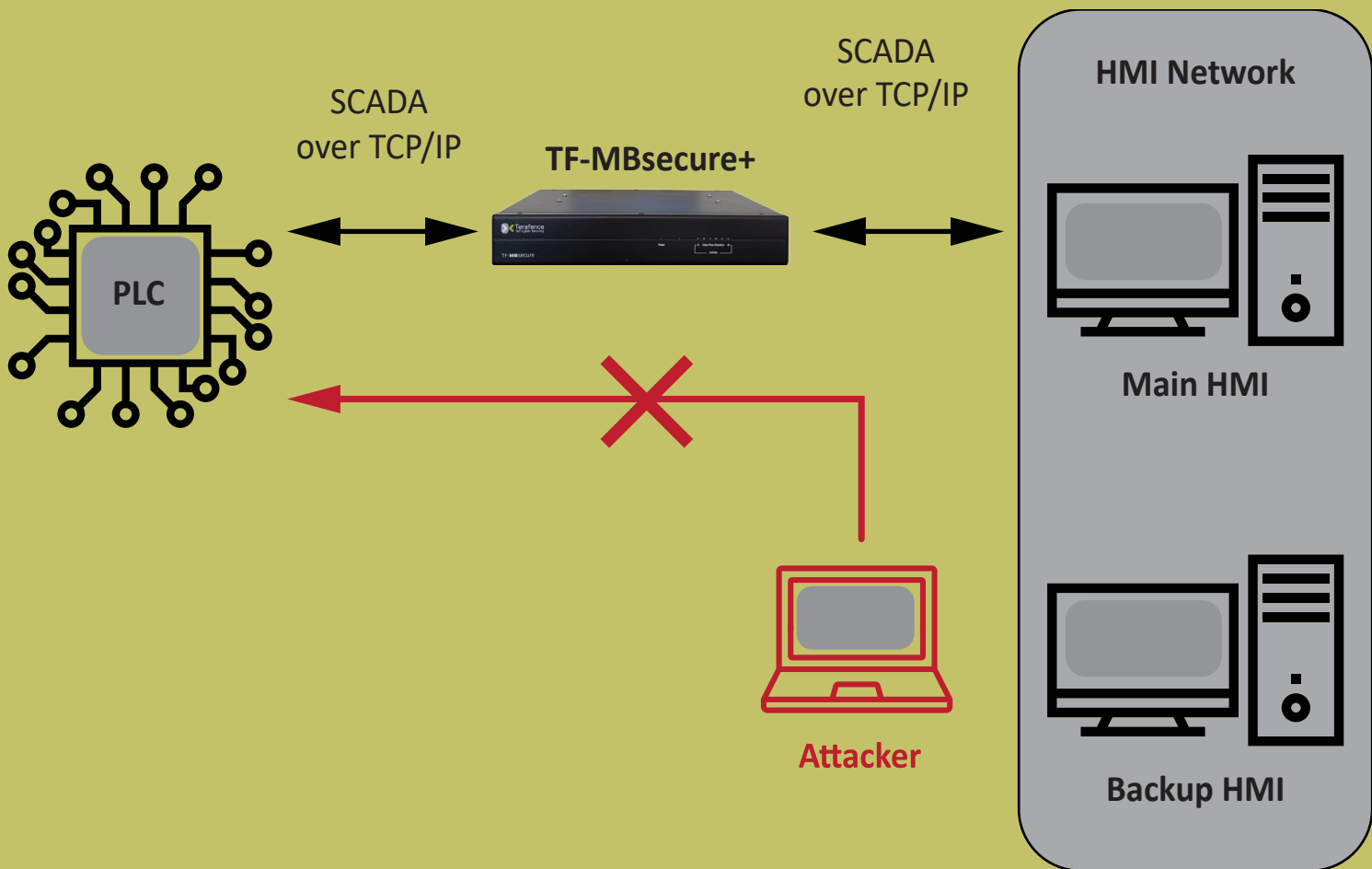
- Unit configuration via Web based GUI

#### Hardware Specifications:

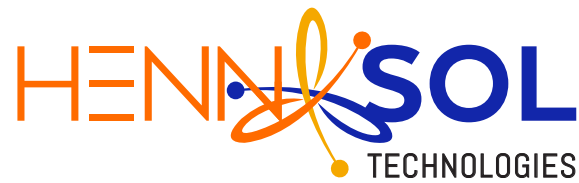
- Data bandwidth = 1 Gbps
- Power – 1x5VDC / 8AMP
- No FANs, no disk drives
- 2xRJ-45 CAT6 connectors STP/UTP
- Physical ports – 2x1Gbps LAN ports
- Measurements: Wx290 , Hx50 , Dx230 (mm)
- Power consumption: max-40W
- Mounting options:
  - Desktop / 19" Rack Shelf
  - 35mm DIN Rail

**Solution Highlights:**

- PLC is secure from attacks at OSI Layer-1, physical link.
- SCADA data is collected from PLC and is made available to the HMI for collecting.
- PLC read/poll command interval is configurable for maximum accuracy.
- Near Zero (30μs on average) latency through the unit.
- HMI restriction, only configured HMI units may request data.
- Unit is a network device / bridge, not a service or an application server.
- Unit configuration is available only via the PLC side (WEB GUI).
- No access to the unit from the HMI SIDE due to security hazards.



# Terafence's Partner Details:



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TERAFENCE COMPRISES  
PROFESSIONALS TO MAKE IoT & NoT  
SECURE FROM MALICIOUS ATTACKS

Terafence Ltd. specialises in the development of advanced firmware/microchip solution for cyber security connectivity and additional mechanical waves based solution to control medical implants and wearable devices. Established in 2015, Their patent pending TFence™ technology uniquely offers total protection from tampering or hacking IoT devices by completely blocking data entry – while maintaining data outflow and control. And relevant patent describing secure way to control implants and wearable based on ultra sound waves. Their pioneering company comprises seasoned professionals sharing a common goal – to make IoT and NoT safe and secure from malicious attacks.

[www.terafence.com](http://www.terafence.com)