Terafence
IoT Cyber Security

OPC for Air Gapped Networks

OPC is widely used in OT environments as an essential tool for operational data, messages, errors and warning collection and management. New Cyber threats are focused on OT resources aiming to cause damage or demand ransom. Security experts recommend segmenting OT networks wherever needed to reduce the attack surface attackers face.

Terafence manufactures Cyber Security hardware products to allow security architects the freedom in segmenting their networks as needed.

Terafence OPC Solution keeps a galvanic network separation at the physical network layer and denies any attempt to reach the secured side, just like a data-diode, by a Terafence designed hardware chip.

Terafence OPC Solution enables safely forwarding OPC data without any risk or exposure to outside Cyber threats, within an All-In-One compact desktop unit connected to both networks. The unit maintains a galvanic Air-Gap while forwarding OPC TAGs at 1Gbps from the secure side to the less secured side.

Key Features

- Total galvanic network separation
- Terafence proprietary hardware chip (FPGA)
- 350 Vendor Specific PLC protocols converted to OPC/UA TAGs.
- OPC/DA/UA forwarded as OPC/UA or HTTP/S or uploaded to the cloud using MQTT
- HTTP/S Simple GUI for configuration (from secure side only)
- Two accompanying CPUs for protocol support

Security features

- Hardened Linux operating system on accompanying CPUs
- Core security hardware has no OS, no MAC/IP
- Secure unit access (HTTPS) to GUI with encryption keys

Technical Specification

- 1Gbps data throughput
- Power - 12-48VDC @60 Watt (internal UPS)
- Network Ports - 2xRG-45 CAT5E ports
- No moving mechanical parts
- Desktop or DYN Rail mounting
- Operating temperature – (-40) ~ (+80)OC
- In-door use only

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Email Relay for Air Gaped Networks

Solution Highlights

- Total Galvanic, physical network separation, hardware based on proprietary CHIP
- Solution includes two accompanying CPUs for protocol support and termination
- OPC/UA/DA + 350 PLC converted to OPC/UA.
- Simple, easy configuration using HTTPS GUI
- 1Gbps backplane
- All-in-One solution, no need for additional HW/SW supplements
- No hidden costs
- Small footprint, desktop or DYN rail mount.
- Stand-alone unit, not interacting with external entities
- Simple configuration via secure HTTPS internal webservice GUI.

Terafence A4GATE technical specification

- Processor - Intel ® ATOM E3940 CPU
- Memory – 8GB
- Network - 2 x Intel® 10/100/1000 Mbps
- Ports - 2 x USB 3.0
- Measurements: Wx71, Hx160 Lx265 (mm)
- Desktop, Din Rail, Wall-Mount Mounting
- -40 ~ 85°C (-40 ~185°F) Operating Temperature
- -40 ~ 85°C (-40 ~185°F) Storage Temperature
- 95% @ 40°C non-condensing Relative Humidity
- CE & FCC Class B

www.terafence.com
Tel +972 4 850 0101
Info@terafence.com