



Terafence
IoT Cyber Security



Email Relay for Air Gapped Networks

Where Every IoT Counts

Email is still considered as valid, useful communication method especially when the receiver is a human. Sending messages, errors, warning and as such is an operational requirement in OT environments, yet the traditional all safe keeping Air-Gap must be converged in order to deliver electronic messages from OT to external world.

Terafence secure email relay Solution keeps a Military grade network separation at the physical network layer and denies any attempt to reach the secured side. Unlike other data-diodes relying on optic fibers, Terafence have designed hardware chip to attain military grade protection.

Terafence Email-Relay Solution enables safely sending emails without any risk or exposure to outside Cyber threats, within an All-In-One compact desktop unit connected to both networks. The unit maintains the galvanic Air-Gap while forwarding data at 1Gbps from the secure side to the less secured side. No human intervention, no surprises.

Key Features:

- Total galvanic network separation
- Terafence proprietary hardware chip (FPGA)
- SMTP Email-Relay functionality (TLS)
- HTTP/S Simple GUI for unit 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 for configuration

Technical Specification:

- 1Gbps data throughput
- Power – 2x12-48VDC @60 Watt
- Network Ports - 2xRJ-45 CAT5E ports
- No moving mechanical parts
- Measurements: 95 x 160 x 200 (mm)
- Desktop or DYN Rail mounting
- Operating temperature – (-40) ~ (+80)°C
- In-door use only

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
- Email-Relay, SMTP (over SSL/TLS)
- Simple, easy unit 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
- No moving mechanical parts

Terafence TFG121 technical specification:

- Processor - Intel® ATOM x5-E3940 CPU
- Memory - Slim Bootloader 16 MiB Bios Memory LPDDR4 Dual Channel 1600MHz 8GB Storage
- Network - 2 x Intel® I210-IT 10/100/1000 Mbps
- Ports - 2 x USB 3.0 (external), 2 x USB 2.0 (PL2303)
- Approx 95 x 200 x 160 mm Dimensions
- Approx 2 KG Weight Aluminum and Steel Construction
- Desktop, Din Rail, Wall-Mount Mounting
- -40 ~ 80°C Operating Temperature
- 95% @ 40°C non-condensing Relative Humidity
- CE & FCC Class B
- IEC62443-4-2 – SL2
- MIL-STD-810F Method 516.5

