



| Bi-directional Gateway |

Technology Overview

Terafence is proud to offer a unique, secure, and innovative network security appliance – **Terafence Bi-directional Gateway**.

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

Terafence **BSG** is designed to provide a better-than-ever security by filtering LAN traffic via Terafence's propriety FPGA.

Terafence **BSG** allows network architects to define traffic patterns through the device with total assurance that any hacking attempts fail due to galvanic separation and super strong appliance architecture.

Terafence **BSG** utilizes 2 proprietary FPGA data diodes by Terafence to create an appliance that is protocol agnostic and yet extremely safe and secure.

Only pre-defined traffic can pass through without allowing direct TCP/IP sessions between client and server filtered by hardware-based traffic filters. Optional Firewalls may add solution hardening

Why choose BSG ?

Key Features:

- Total galvanic network separation
- Terafence proprietary hardware chip (FPGA)
- Totally transparent to network
- TCP/IP Protocol agnostic
- Full TCP/IP bi-directional protocols support
- Total control over passthrough LAN traffic
- Hardware-based Packet filtering and optional
- Firewalls at each device end
- Ability to determine session initiation direction (Client – Server)

Security Features:

- Hardened Linux Operating System on the integrated CPUs
- Core security hardware has no OS, no MAC/IP
- Secure unit access (HTTPS) to GUI with the encryption keys

Technical Specifications:

- **Data Throughput:** 1 Gbps
- **Power Supply:** 12VDC/18Amp MAX 230 Watt
- **Network Ports -** 2xRG-45 CAT5E ports
- **Desktop or Rackmount**
- **Operating temperature –** (0) ~ (+ 60 °C)
- **In-door use only**



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Solution Highlights :

- Total Galvanic, physical network separation, hardware based on Terafence's proprietary chip.
- Solution includes O2 integral CPUs (Linux).
- Invisible to network, simple-to-use, easy configuration using HTTPS GUI.
- 1 Gbps backplane ; Small footprint; No hidden costs.
- All-in-One solution, no additional HW/SW required.
- Stand-alone unit, not interacting with external entities.
- Simple configuration via secure HTTPS internal webservice GUI.
- Hardware Packet filtering and optional Firewalls at each device end.

Technical Specifications

- **Processor** - Intel® i3/i5/i7/i9 CPU
- **Memory** – 8 to 32GB
- **Network** - 2 x Intel® 10/100/1000 Mbps
- **Measurements:** (1U) 44 x 430 x 353 mm
- **Desktop, Rack Mounting**
- **Operating Temperature :** 0 ~ 60 °C (- 40 ~ 185 °F)
- **Storage Temperature :** -20 ~ 80 °C (- 40 ~ 185 °F)
- **Non-condensing Relative Humidity :** 10 %-95 %, 40 °C
- **CE & FCC Class B**

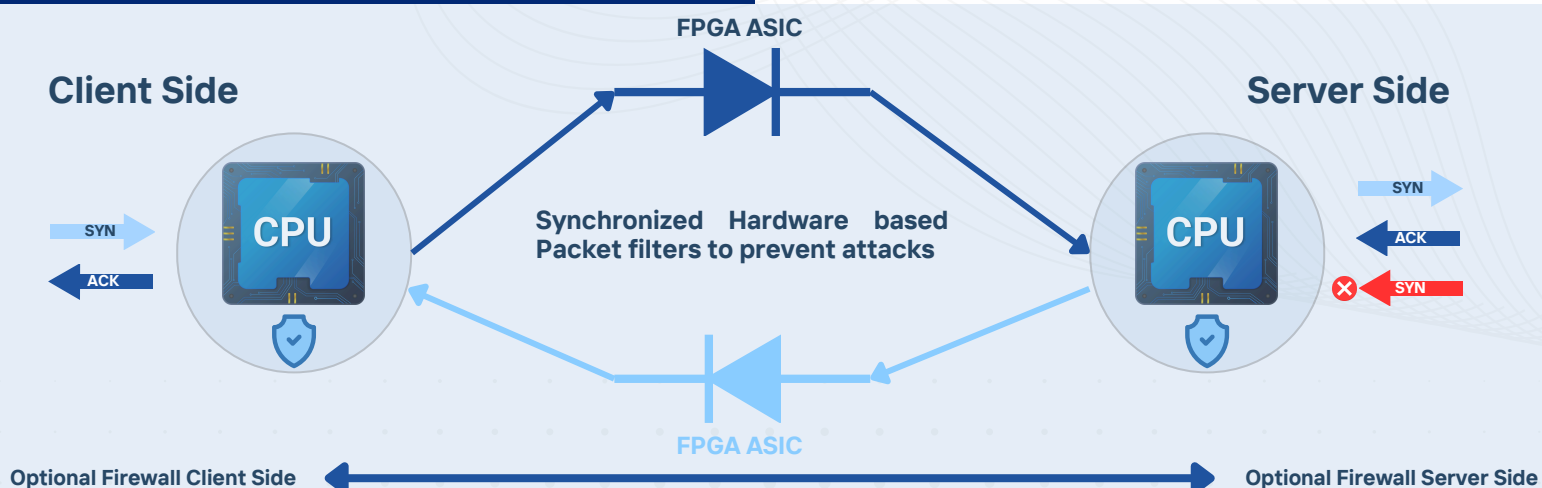


Figure. BSG Architecture