Secure VoIP Gateway

Enabling secure collaboration between users on segregated networks

BAE Systems’ Cybersecurity Products offers a Field Programmable Gate Array (FPGA) enforced gateway that enables secure VoIP communications between users on networks with different classifications or trust classes, while maintaining the security and integrity, of the networks. With strict enforcement in each direction, it uses a bi-directional hardware data pipeline to inspect data, thus preventing data leakage and malicious content from getting through.

A configurable audible notification reminds users their conversation is crossing network boundaries, mitigating human-factor risks.

The Secure VoIP Gateway ensures the business benefits from information exchange across network boundaries, while minimizing the risks of compromising the confidentiality, integrity and availability of the networks concerned.

Features and benefits

- Reduces infrastructure and maintenance costs by lowering footprint and number of resources.
- Simplifies resource and voice management procedures for users on networks with different classifications or trust classes.
- Security enforcement functionality is implemented in the hardware, reducing the attack surface.
- Minimal space and power requirements as a single 1U device serves up to 512 concurrent VoIP calls.
- Simple and highly secure remote configuration and management.
- Automated logging and audit functionality for increased efficiency.
Environment and connectivity

- SFP modules (copper or fiber)
- 10/100/1000 ethernet with auto-negotiation
- Codecs G.711a
- Protocols SIP, SIP/TLS, RTP, SRTP
- 1U 19” rack-mount
- 100-240V AC
- <200W
- 0-40ºC
- 512 concurrent VoIP calls
- Integrated with Cisco and Pexip
- CE and FCC (part 15) compliant
- Active tamper protection

Solution overview

All data passes through a hardware pipeline that inspects the data. A protocol break ensures that a single vulnerability cannot propagate through multiple components within the gateway architecture, resulting in a very low attack surface. Activity is logged to ensure an accurate record of all information transfers. Log events can be transmitted via a simple network management protocol (SNMP) trap on a dedicated management network interface or stored on an internal hard disk.

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