Product Description

Many security tools need to be connected inline on production networks to realize their full value. This means that all traffic must flow from the network segment through the tool and then back onto the production network. This introduces various operational risks and challenges including the impact of a failure of the inline device and the potential performance degradation as the volume of traffic and speed of the network increases. A 10Gb stream of traffic will quickly render a 1Gb inline device over-subscribed and potentially obsolete. Gigamon developed the G-SECURE-0216 inline traffic distribution node as part of the Visibility Fabric™ to specifically address these three challenges: availability, performance, and protection of security tools.

Traffic enters the G-SECURE-0216 10Gb ingress port and then, with powerful distribution logic and intelligence, the traffic is distributed to up to eight 1Gb inline devices such as an IPS or firewall. The integration of both session-based and application-based intelligence allows security teams to distribute loads based upon IP or MAC addresses as well as by application port number. The G-SECURE-0216 inline fabric node is available in both singlemode and multimode fiber configurations, and the ingress supports both 1Gb as well as 10Gb connections.

The G-SECURE-0216 offers both active and passive bypass protection for inline tools, so that in the event of a failure or power outage, the network connectivity is maintained resulting in no downtime. Customizable heartbeat packets can be sent to attached inline security tools to monitor availability.

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Table 1 : Features & Benefits

Features	Benefits
Oversubscription Protection	Empower low-bandwidth tools to keep up with 10Gb network upgrades.
Failover	Protect against inline tool failures and enable 24X7X265 network availability
Maximize Tool Performance	Context aware distribution of Inline 10Gb or 1Gb feeds across multiple inline tools based on packet content. Facilitate forwarding of traffic of interest to inline security monitoring tools for analysis and inspection
Traffic Flexibility	Send specific traffic to specific tools, i.e. web traffic to web tools, VOIP traffic to VOIP tools, etc., and leave trust traffic alone.
Availability	The G-SECURE-0216 offers both physical and logical bypass protection for inline tools.
Intuitive Web Interface	The G-SECURE-0216 includes G-VUE, a web-based interface for the G Series of GigaVUE® nodes. G-VUE lets you manage your device from a familiar web browser instead of the CLI, using intuitive drag-and-drop techniques.
Remote Management	Configure the G-SECURE-0216 node from a web-based or command-line interface: • Local access over the serial Console port on Control Card • Remote network access using Telnet or SSH2 over the 10/100/1000 Ethernet Management port • Secure access to the CLI, either through local authentication or optional RADIUS/TACACS+/LDAP support • Powerful and flexible logging, including event notification via syslog, email, and SNMP traps
Modularized Design	Install once and never touch any links again. You can move, add, and reconfigure tools at will without affecting production networks.
SNMP Support	Rely on secure SNMPv3 access to the onboard SNMP agent as well as v1/v2 SNMP traps.

Product Specifications

Table 2 : G-SECURE-0216 Ports

Ports	Description
Management	Use the management port for remote configuration of the G-SECURE-0216 node over a 10/100/1000 Ethernet network, either in the CLI or G-VUE.
Console	Use the Console port for local configuration of the G-SECURE-0216 node over a serial connection.
Inline Tool Port Pairs g1a/g1b..g8	The G-SECURE-0216 provides eight pairs of inline tool ports (g1..g8). Each tool pair port has an a side and a b side (for example, g1a/g1b, g2a/g2b, and so on). By convention, the a side is used for the external (unprotected) side of the link and the b side is used for the internal (protected) side. You connect inline tools to a tool pair port so that traffic arriving on the inline network ports flows through the tool and then back onto the production network. • Ports g1..g4 provide 10/100/1000 copper RJ-45 connectors. • Ports g5..g8 use 1Gb optical SFP transceivers and support 1Gb speeds only. NOTE: 850nm multi-mode or 1310nm single-mode SFP transceivers are available as standard options. Zx 1550nm single-mode SFP transceivers are available as a special order.
Ports x1a/x1b Inline Network (10G)	Use the x1a/x1b inline network ports when operating in 10Gb mode. You can either connect x1a/x1b directly to the tapped link or take advantage of physical bypass protection by connecting x1a/x1b to the A/B monitor ports on the Optical Protection switch using the jumper cables provided with your product shipment. The x1a/x1b ports accept 10Gb SFP+ transceivers: • 10Gb SFP+ transceivers are available for optical (SR/LR/ER/LRM) media (1Gb Inline is also available.)
Optical Protection Switch	The G-SECURE-0216 includes an optical protection switch that operates with the physical bypass either on or off. • The unit starts out with the physical bypass on, with the optical protection switch coupling the fibers between the Network A and B ports. This is the "protected" mode of the unit–during a physical failover situation, the unit will engage the physical bypass so that traffic flows only between the Network A/B ports and not to the A/B output ports. • When you turn the physical bypass off with the config physical-bypass off command, the optical protection switch decouples the fibers between the Network A/B ports and connects them to the A/B output ports. This allows traffic to flow on to the G-SECURE-0216 switching fabric via jumper cable connections from the A/B output ports to the x1a/x1b (10Gb) or g8a/g8b (1Gb) input ports. The optical protection switch accepts standard 850nm multi-mode or 1310 nm single-mode fiber cables depending on the model. The silkscreen on the front of the unit indicates the model (MM or SM). The Mode LED indicates the status of the physical bypass: • Off – The physical bypass is on. Traffic is flowing through the Network A/B ports only. • On – The physical bypass is off. Traffic is flowing to the A/B output ports.

Table 3 : Physical Dimensions & Weight

Product	Height	Width	Depth	Weight (Fully Populated)	Weight (Shipping)
G-SECURE-0216 with mounting brackets	1.74in (1RU) (4.42cm)	19in (48.26 cm)	11.81in (30cm)	16lbs (7.26kg)	25.2lbs (11.43kg)
G-SECURE-0216	1.74in (1RU) (4.42cm)	17.32in (44cm)	11.81in (30cm)	16lbs (7.26kg)	25.2 lbs (11.43kg)

The G-SECURE-0216 appliance is powered by dual redundant, load-sharing, hot-swappable power supplies. Both AC and DC power supplies are available. The table below summarizes the electrical characteristics for the G-SECURE-0216 node:

Table 4 : Power Requirements

Type	Specification
Heat/Power Dissipation	For a fully populated system with all ports at 100% traffic load: nominally 100Watts; 340 BTU/hr
AC Power Supplies	100-240V AC Nominal current requirement: .95A @ 110V AC Frequency: 50/60Hz
DC Power Supply	-36 to -72V DC Optional external fuse rating: 7A slow-blow Nominal current requirement: 1.7A @-48V DC

Table 5 : Environmental Specifications

Specification	G-SECURE-0216
Operating Temperature	32°F to 104°F (0°C to 40°C)
Operating Relative Humidity	20% to 80%, non-condensing
Recommended Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Recommended Storage Relative Humidity	15% to 85%, non-condensing
Altitude	Up to 15,000ft. (4.6km)

Table 6: Standards & Protocols

Standards & Protocols	Description
Standards & Protocols	IEEE 802.1Q VLAN, IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T, IEEE802.3z 1000BASE-X, RFC 783 TFTP, RFC 791 IP, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet, RFC 768 UDP, RFC 792 ICMP, SNMP v1/v2c, RFC 2131 DHCP client, RFC 1492 TACACS+, support for IPV4 and IPV6.

Table 7 : Regulatory Compliance & Safety

Type	Description
Compliance & Safety	UL 60950-1; CSCAC22.2; EN 60950-1; IEC-60950-1; China Compulsory Certification (CCC) Mark
RoHS Compliance	RoHS 6, EU directive 2002/95/EC
Emissions	FCC Part 15, Class A; VCCI Class A; EN55022/CISPR-22 Class A; Australian/New Zealand AS/NZS CISPR-22 Class A; CE Mark 55022 Class A
Immunity	ETSI EN 300 386 V1.3.2, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-3-2

Table 8 : Warranty & Support

Warranty	Description
Hardware	Gigamon 5-Year Limited Warranty included with purchase
Software	1-Year Software Limited Warranty included with purchase
Support	1-Year Standard Support included with purchase

Gigamon offers a range of premium support and extended services. For details regarding warranty and support, visit: http://www.gigamon.com/Gigamon-techincal-support

Ordering Information

Table 9: Ordering Information

Part Number	Description
GSC-GSM01	G-SECURE-0216 In-line distribution node, singlemode, AC power
GSC-GSM02	G-SECURE-0216 In-line distribution node, singlemode, DC power
GSC-GMM01	G-SECURE-0216 In-line distribution node, multimode, AC power
GSC-GMM02	G-SECURE-0216 In-line distribution node, multimode, DC power
SFP-501	1Gb SFP, Copper, UTP with RJ-45 interface for GigaVUE-212 or GigaVUE-2404
SFP-502	1Gb SFP, Multimode 850nm
SFP-503	1Gb SFP, Singlemode 1310nm
SFP-504	1Gb SFP, Singlemode 1550nm
SFP-532	10Gb SFP+, Multimode 850nm SR
SFP-533	10Gb SFP+, Singlemode 1310nm LR
SFP-534	10Gb SFP+, Singlemode 1550nm ER (special order)
SFP-535	10Gb SFP+, Multimode 1310nm LRM (special order)
TRN-002	Add-on per day Gigamon Product Training at Customer site in North America
TRN-003	First day Gigamon Product Training at Customer site outside North America (Up to 8 students)
TRN-004	Add-on per day Gigamon Product Training at Customer site outside North America
SVC-000	2nd year Premium hardware and software maintenance
SVC-001	1st year Premium maintenace upgrade (24x7)
SVC-002	2nd year Premium hardware and software maintenance (24x7)

For More Information

For more information about the Gigamon Visibility Fabric architecture or to contact your local representative, please visit:

www.gigamon.com