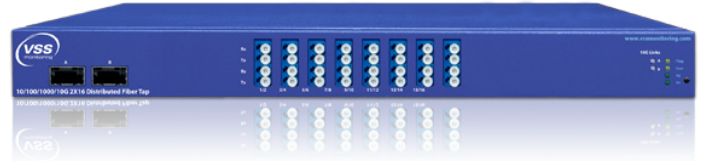




Optimizer™ LTE Traffic Capture Systems

Optimizer 2016 LTE



Benefits

- Bridges the gap between Gigabit and 10 GigE networks
- Maintains network reliability
- Aggregation reduces required ports on monitoring devices
- Input filters eliminate packet loss
- Easy plug and play installation
- Remote management via Browser and command line interface
- Shields monitoring device from intruders

Features

- Full line-rate traffic capture
- vAssure™ and LinkSafe™ enabled for copper network
- Configurable input /output ports
- Selective aggregation
- Hardware-Based Filtering on OSI layers 2-7 (including custom offset filter)
- Full 4G/LTE IP protocol support, e.g. SIP, RTP, GTP v1/v2, GRE
- Session-Aware Load Balancing
 - including GTP support
- vStack™ Intelligent stacking
- Graphical user interface via HTTP/HTTPS, and CLI via Telnet/SSH
- SNMPv3 with RMON1
- RADIUS / TACACS+ Support (AAA)
- In-field upgradable

Distributed Traffic Capture Systems for 4G/LTE

VSS Monitoring is at the forefront of selective aggregation technology to help end-users manage and monitor their networks during and after transition to 4G/LTE technology. Hardware-based Filtering and session-aware load balancing, of monitor traffic, are crucial to the success of 4G/LTE networks. A fully distributed, meshed, self-healing network monitoring system architecture, with thousands of filtering permutations, means that monitoring tools do not need to process packets that are not of interest. This allows the tools to perform only their intended purpose and eliminate the overhead of unwanted packets.

The need for this has become apparent with the number and variety of tools built upon commercial, off-the-shelf platforms whereby the monitoring tool vendor has utilized standard chassis with no hardware acceleration. Furthermore, the need for accessing all traffic at all necessary points in the network at all times, and bringing it back to a NOC or SOC, has made intelligent stacking an imperative.

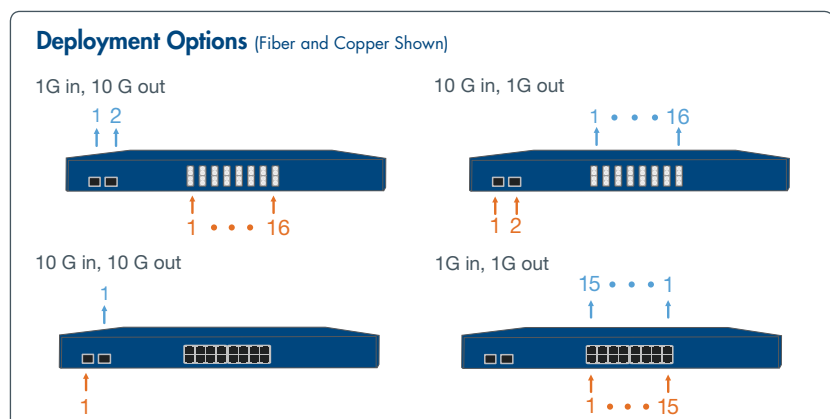
Product Description

The Optimizer 2016 LTE Distributed Filter Tap is a highly flexible, intelligent traffic capture device targeted specifically for 4G/LTE networks ranging from 10Mbps to 10 GigE.

The device features two XFP ports, and 16 dedicated copper UTP 10/100/1000 or Fiber Gigabit ports. Each of the 18 ports is independently controllable and flexible, allowing the user to forward any group of network ports to any monitoring device.

All ports are configurable as Inline tap (bidirectional) or SPAN (unidirectional) inputs or monitor outputs.

This device can be locally managed via a serial console and remotely managed via HTTP, HTTPS, SNMPv3, SSH, and Telnet.



Hardware-based Filtering allows traffic to be distinguished according to source and destination MAC/IP address as well as by specific protocols, such as GTP, HTTP, MPLS, RTP, SIP, etc. A custom filter offers more granular specification of a filter, specifically within the payload of a packet.

Session-aware Load Balancing increases user control of traffic distribution to monitoring tools, increasing output capacity while maintaining session integrity. For example, a 10 GigE network can be captured and automatically balanced across multiple Gigabit monitor tools based on user-defined session criteria. Session-Aware

Load Balancing can operate in tandem with Hardware-based Filtering or independently.

All VSS Distributed Taps also support VSS' proprietary intelligent stacking technology, vStack™, which enables traffic capture devices to be deployed in a redundant, low-latency mesh for total, dynamic, fault-tolerant visibility. Redundant power supplies allow seamless transitions between power systems and ensure uptime. All VSS managed devices support field firmware updates for additional features and performance enhancements.

Technical Specifications

Mechanical												
Unit Type:	Optimizer 2016 LTE Copper					Optimizer 2016 LTE Fiber						
Total Weight:	15 lb. / 6.8 kg.											
Size:	17.3" (w) x 22.5" (d) x 1.75" (h) / (441 mm x 572 mm x 44.5mm) 1RU High, Fits standard 19" Rack, 21" Deep											
Copper Network Ports:	(x16)					N/A						
Fiber Network Ports:	N/A					(x16)						
Input/Output Ports:	(x18)					(x18)						
XFP 10 GigE Ports:	(x2)					(x2)						
Optical Splitter Loss												
Split Ratio:			90:10		80:20		70:30		60:40		50:50	
Wavelength:	Insertion Loss (dB)	Net	Mon	Net	Mon	Net	Mon	Net	Mon	Net	Mon	
	850nm SR	< 1.6	< 10.8	< 2.0	< 8.0	< 2.7	< 6.3	< 3.3	< 4.9	< 4.1	< 4.0	
	1300nm SR	< 1.3	< 10.8	< 1.9	< 8.0	< 2.5	< 6.3	< 3.2	< 4.9	< 4.0	< 4.0	
	1310/1550nm LX/ZX	< 0.7	< 11.4	< 1.4	< 7.9	< 1.9	< 6.0	< 2.7	< 4.7	< 3.6	< 3.6	
Performance												
Full line rate:	36 Gbps											
Environmental												
Temperature:	0 – 55 degrees C (operating); -20 – 100 degrees C (storage)											
Humidity:	5% – 95%, non-condensing											
Data												
Rates:	10 Mbps - 10 Gbps											
Types:	Ethernet, 10Base-T, 100Base-Tx, 1000 Base-T, 1000 Base-SX, 1000 Base-LX, 1000 Base-ZX, 10 GigE Base-LR, 10 GigE Base-ER, 10 GigE Base-ZR, 10 GigE Base-SR, 10 GigE Base-CX4, 10 GigE Base-T											
Propagation Delay												
Network Cable Distance:	100M											
Network to Network:	10M < 6µs, 100M < 615ns, 1G < 340ns					340ns						
Network to Monitor:	To: 10M < 1.3ms, 100M < 130µs, 1G < 13.2µs, 10G < 13.2µs											
Power												
AC Voltage: 90-264V	95.8 W					76.7 W						
DC Voltage: 40-72V	75.0 W					65.0 W						



Network Visibility. Optimized.

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VSS Monitoring, Inc. is the world's leading innovator of Distributed Traffic Capture Systems™ and network taps, focused on meeting the rapidly evolving requirements of security and performance conscious network professionals. Distributed Traffic Capture Systems herald a new architecture of network monitoring, one which fundamentally improves its capability and price-performance.

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