

DIRECTOR XSTREAM™



Features

- 10 Gigabit Aggregation, Regeneration, Matrix Switching, and Smart Filtering in a single device
- Twenty-four 10-Gigabit SFP+ ports
- Works with external taps and SPAN ports
- Any port can be used for monitor or network — 24 network plus 24 monitor connections possible with split cables (RX fiber for network, TX for tool)
- TapFlow™ multi-layer filtering engine
- More than 1,000 filter elements per chassis
- Static load balancing
- RMON statistics (packet count, utilization, etc.)
- Dual redundant hot-swappable AC or DC power supplies
- Indigo™ management software

Benefits

- Leverages 1G and 10G monitoring tool investments
- Improves 10G network visibility and security threat management
- Relieves oversubscribed tools by filtering
- Compatible with monitoring tools, firewalls, and intrusion detection and prevention systems from all major manufacturers

Efficient Monitoring Access

Today's networks deliver more services and carry greater amounts of multi-protocol traffic, mixing data, voice, and streaming video simultaneously. To handle the skyrocketing traffic load, networks are rapidly being upgraded to high-speed 10 Gigabit links. Increased security threats and tighter regulatory compliance requirements further complicate network operations.



Director™

Maintaining network security and performance in this environment means monitoring more points in the network, for more detailed information, at 10-Gigabit line speeds. As a result, monitoring tools are oversubscribed and multiple groups with various responsibilities compete for use of the tools and access points.

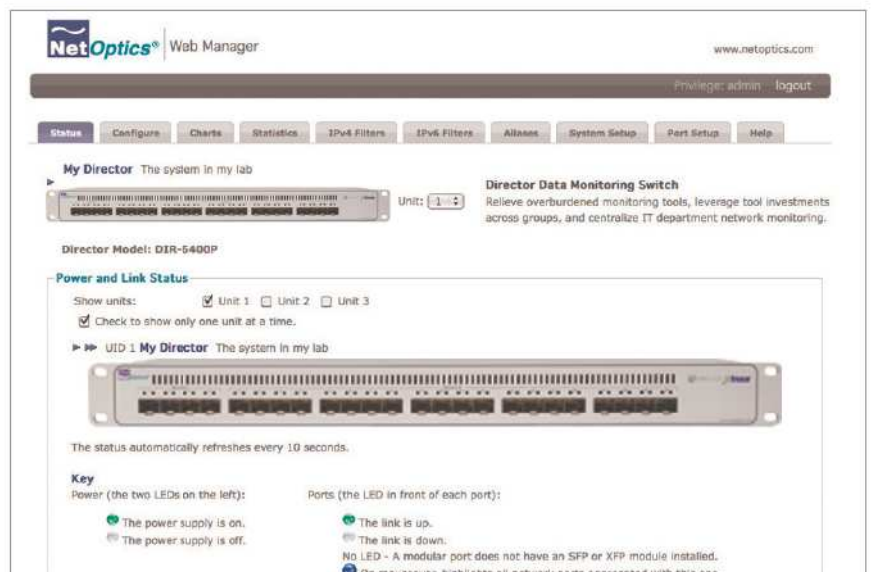
Director Xstream answers the need for more efficient 10G monitoring access by enabling a pool of 10G and 1G tools to be deployed across a large number of 10G network links, with remote, centralized control of exactly which traffic stream is directed to each tool. Using browser-based or platform-based software with friendly

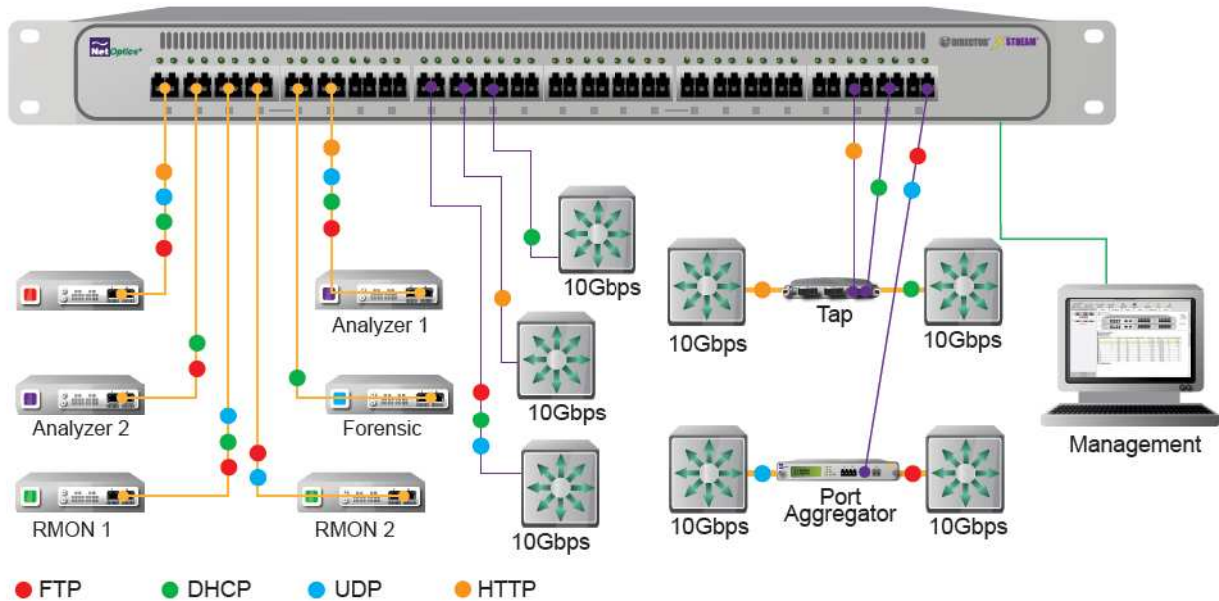
graphical user interfaces, tools are easily and instantly moved from one link or set of links to another without unplugging and plugging cables and physically moving devices. There is no need to wait for a maintenance window or get approvals for changing the network configuration, because Director Xstream is completely transparent to the network. Furthermore, its SFP+ ports accept both 10G SFP+ and 1G SFP transceivers, enabling 10G and 1G links and tools to be interconnected in any mix, with Director Xstream automatically handling the data rate conversion.

Indigo™ Management Software

Director Xstream is supported by Indigo™, the Net Optics software management suite. Indigo includes an intuitive command line interface (CLI), a Web browser based GUI, and a platform based GUI console. With Indigo, managing your Director Xstream and other Net Optics devices is easy, whether you are present in the NOC or working remotely.

Take network traffic monitoring to the Xstream! Net Optics Director Xstream™ is a 10-Gigabit focused "Smart Filtering" appliance that directs traffic of interest to monitoring tools. Monitor as many as sixteen 10G links (using external taps) or 10G Span ports with up to eight 10G monitoring tools. TapFlow™ filtering technology enables you to select traffic of interest for each tool based on protocols, IP addresses, ports, and VLANs. Director Xstream provides the access capabilities you need to leverage your 10G and 1G monitoring tools across your entire network while streamlining the amount of data the tools need to process. It is a versatile component of a monitoring access platform (MAP) for improved network visibility and security threat management across the entire network.





Application Diagram

Specifications

Operating

Operating Temperature: 0°C to 40°C
 Storage Temperature: -10°C to 70°C
 Relative Humidity: 10% min, 95% max, non-condensing

Mechanical

Dimensions: 1.75" high x 19" wide x 17.5" deep
 Mounting: Surface or 19" rack mount (1U)
 Weight: 8.2 lbs (3.7 kg)

Connectors

Network Ports: (20) SFP+
 Monitor Ports: (4) SFP+
 Management Port: (1) RJ45 10/100/100 Copper Network
 Configuration (CLI) Port: (1) RJ45 RS232
 Power: (2) AC universal or (2) -48VDC, redundant, hot-swappable modules
 DC Receptacle: Terminal peak, 12-14 gauge wire

Electrical Specifications

AC Input: 100-240VAC, 4.5A, 47-63Hz (Japan: 100-125VAC, ~300 VA, 50-60Hz)
 DC Input: -48VDC nominal, -36 to -72VDC, 4.0A

Indicators

(All ports) Link LEDs
 (All ports) Activity LEDs
 (2) Power LEDs

Performance

Hardware throughput: 240 Gbps; no packets dropped as long as monitor traffic does not exceed monitor port bandwidth
 Latency: Less than 2 microseconds, any port to any port, any amount of regeneration and filtering (excluding aggregation head-of-line blocking delays)
 Port mapping: Aggregation, any number of ports in; regeneration, any number of ports out; any-to-any, any-to-many, many-to-any, and many-to-many; any port can be used as an input, an output, or both simultaneously—monitor ports can be used as additional network ports, and network ports can be used as additional monitor ports
 TapFlow: Filter by IP source address, IP destination address, MAC source address, MAC destination address, source port, destination port, protocol, network port or port group, VLAN
 Static Load Balancing: By IP addresses, MAC addresses, ports, VLANs, or other header field (implement with filters)
 RMON statistics: Current utilization, total packets, total bytes, CRC errors
 Device management: Remote software upgrades, RADIUS and TACACS+ authentication and authorization

Indigo™ Management Software

CLI—local RS232 and remote SSH, compatible with Director CLI
 Net Optics Web Manager—compatible with all major Web browsers (availability TBD)
 Net Optics System Manager—compatible with Windows XP, Windows 2000, and Windows 98 (availability TBD)

Certifications

Safety: UL, CE EMC: FCC, VCCI, C-Tick
 Environmental: RoHS, WEEE
 Protocol: Fully IEEE 802.3 compliant

Warranty

All products include a 1 year manufacturer's warranty. A service plan with up to 7 years coverage and an advanced replacement option is available.

Part Numbers

DIR-2400X	Director Xstream 24 SFP+ Ports
DIR-2400X-DC	Director Xstream 24 SFP+ Ports, -48VDC
SFP+KT-SR	10G Fiber SR SFP+ Transceiver
SFP+KT-50SR	10G Fiber SR 50um SFP+ Transceiver
SFP+KT-LR	10G Fiber LR SFP+ Transceiver
SFPKT-SX	1G Fiber SX SFP Transceiver
SFPKT-50SX	1G Fiber SX 50um SFP Transceiver
SFPKT-LX	1G Fiber LX SFP Transceiver
SFPKT-CU3	10/100/1000 Copper SFP Transceiver

All SFP+ and SFP kits include a 3-meter cable.

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