



# DIRECTOR PRO™

# NetOptics®



## Features

- Dynamic load balancing, tap, link aggregation, stream regeneration, matrix switching, and smart filtering in a single device
- Deep Packet Inspection (DPI) with pattern matching Layer 4 through Layer 7
- Three 10-Gigabit XFP ports and 34 1-Gigabit ports
- In-line and SPAN network modules
- 10 SFP monitor port interfaces
- Daisy-chain with Director devices up to 10 chassis (Director Pro can occupy end positions only)
- TapFlow™ multi-layer filtering engine
- Multiple filter elements per chassis
- RMON statistics (packet count, utilization, etc.)
- Indigo™ management software

## Benefits

- Leverages existing monitoring tool investments
- Improves network visibility and security threat management
- Zero packet loss
- Relieves oversubscribed tools by filtering
- Compatible with monitoring tools and intrusion detection and prevention systems from all major manufacturers

## The World's Most Advanced Network Controller Switch

### A New Way to Access and Monitor Data

Volumes of multi-protocol network traffic continue to skyrocket, with increased security threats, tighter regulatory compliance requirements, and upgrades to 10 Gigabit links further complicating network operations. Maintaining network security, guaranteeing quality of service, and tracking billing information accurately in this environment means monitoring every critical network link for more detailed information and different types of data. As a result, monitoring tools are oversubscribed and multiple groups with various responsibilities compete for use of the tools and access points.

Director Pro answers the need for more efficient network access by enabling a pool of tools to be deployed across a large number of network links, with remote, centralized control of exactly which traffic is directed to each tool. TapFlow™ filtering technology lets you select traffic of interest for each tool based on protocols, IP addresses, ports, VLANs, and MPLS labels. Dynamic load balancing spreads the load from 10G and aggregated 1G traffic evenly over multiple tools, while retaining the integrity of flows. The simple to use DPI provides a powerful capability to look deep inside packets, at

Layer 4 through Layer 7 information, by pattern matching ASCII and hex-based data anywhere within the packet payloads. By centralizing monitoring through Director Pro, tools can be moved instantly from one link to another without unplugging cables and physically moving devices.



LOAD BALANCING

There is no need to wait for a maintenance window or get approvals for changing the network configuration because Director Pro is completely transparent to the network. With power to spare, and load sharing, dual hot swappable power supplies provide enhanced redundancy – and easy serviceability times two. Even if power is removed from both of the unit's power supplies, the fully passive design ensures that in-line network links remain open and network traffic keeps flowing.

### Monitoring Made Better. Faster. Easier.

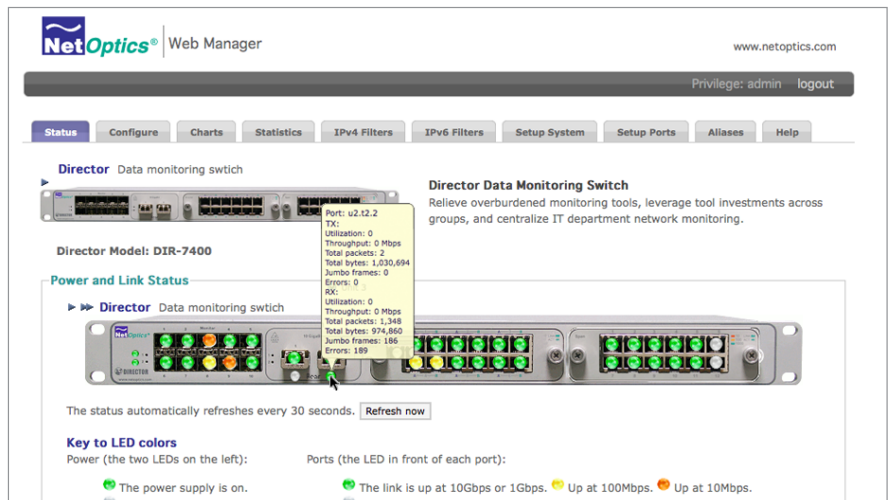
Director Pro has a rich, easy-to-use GUI management tool called Web Manager, which can be accessed from any Web browser. With Web Manager's intuitive interface, you don't need to be an expert to monitor link status, graph RMON statistics, set up filters, or configure Director Pro.

Director Pro - Network Controller Switch breakthrough technologies bring a whole new level to accessing and monitoring data. Next generation architecture offers true 24/7 high performance, failover protected Dynamic Load

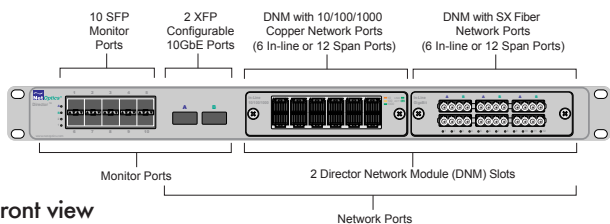


DEEP PACKET INSPECTION

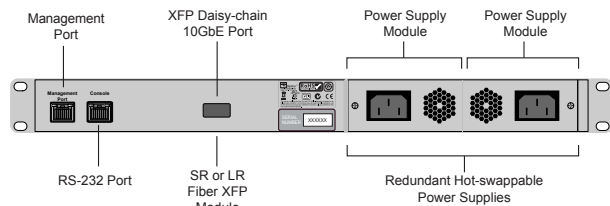
Balancing for mission-critical services. Also included is a full suite of Deep Packet Inspection (DPI) and Filtering for Layer 2-7 and beyond. Additionally, Director Pro carries forward the Director family's capabilities of aggregation, regeneration, switching, and Layer 2 through Layer 4 filtering, as well as offering the highest port density in the industry. Director Pro provides the access capabilities you need to leverage your monitoring tools across your entire network while streamlining the amount of data the tools need to process.



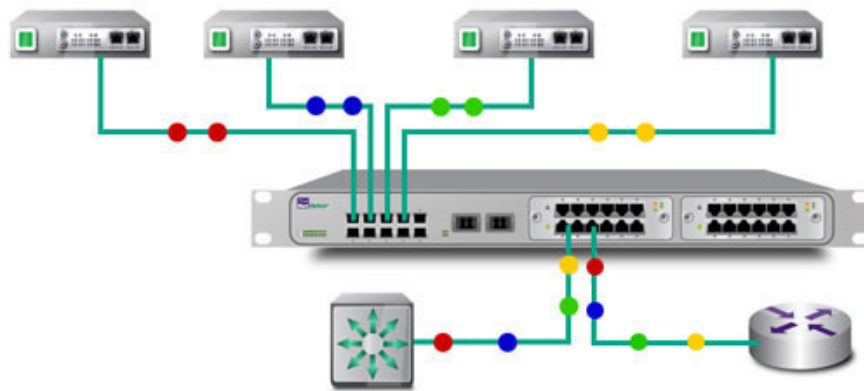
Web Manager



Front view



Rear view



Dynamic Load Balancing

# 24/7 High Performance Failover Protection

## Specifications, chassis

### 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 25" deep x 19" wide  
 Mounting: Surface or 19" rack mount (1U)  
 Weight:  
 DIR-6400P (26lbs)  
 DIR-3400P (24lbs)  
 DNM (1.5lbs)

### Connectors

Network Port Slots: (2) Director Network Module (DNM)  
 Monitor Ports: (10) SFP  
 Configurable 10Gigabit Ports: (2) XFP  
 Daisy-chain (uplink) 10Gigabit Ports: (1) XFP  
 Management Port: (1) RJ45 10/100 Copper Network  
 Configuration (CLI) Port: (1) RS-232 DB9  
 Power: (2) AC universal

### Electrical Specifications

Power: 100-240VAC, 2A, 47-63Hz (Japan: 100-125VAC, ~120 VA, 50-60Hz)  
 DC Input: -48VDC nominal, -36 to -72VDC, 6.0A  
 DC Receptacle: Terminal peak, 12-14 gauge wire  
 Maintenance: Power supplies are hot-swappable

### Indicators

(All ports) Link LEDs (with speed indication on Copper ports),  
 (All ports) Activity LEDs  
 (1) Alarm LED  
 (2) Power LEDs

### Certifications

Fully RoHS compliant

## Performance

Hardware throughput: 64Gbps and 34Gbps  
 Dynamic load balancing: 10Gbps aggregated throughput, 1 to 32 outputs, overflow mode, failover spare, four balance modes: flow (IP address pair), flow (IP source address), flow (IP destination address), packet-by-packet round-robin  
 TapFlow: More than 1,000 filter elements per chassis; 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, utilization threshold, EtherType, outer MPLS label; accurate ranges  
 DPI: Pattern matching in complete packet payload L4-L7; up to three patterns matched sequentially; 64 byte pattern length; ASCII, hex, bitwise don't cares; optional case sensitivity, anchored or unanchored search, independent offsets for each pattern and filter  
 RMON statistics: Current utilization, peak utilization, peak time, total packets, total bytes, CRC errors, collision packets, oversize packets, undersize packets  
 Alarms: Programmable utilization threshold alarm for each network and monitor port

## Indigo™ Management Software

Net Optics Web Manager—compatible with all major Web browsers  
 Net Optics System Manager—compatible with Windows XP, Windows 2000, and Windows 98  
 SNMPv3, SNMPv2, SNMPv1 support

## Part Numbers

DIR-6400P: Director Pro, Main Chassis, 2 DNM Bays, 10 SFP Ports, 3 XFP Ports  
 DIR-3400P: Director Pro, Main Chassis, 2 DNM Bays, 10 SFP Ports  
 DIR-6400P-DC: Director Pro, Main Chassis, 2 DNM Bays, 10 SFP Ports, 3 XFP Ports, -48V  
 DIR-3400P-DC: Director Pro, Main Chassis, 2 DNM Bays, 10 SFP Ports, -48V

## Specifications, DNM

### Copper Interfaces

(12) RJ45 Network Ports 10/100/1000Mbps  
 (6) In-line or (12) SPAN depending on model  
 22-24 AWG unshielded twisted pair cable, CAT5e or better recommended

### Fiber Optic Interfaces

(12) Gigabit SX Network Ports, LC type  
 (6) In-line or (12) SPAN depending on model  
 Fiber Type: Corning Multimode 50 or 62.5/125µm, 850 nm  
 Transceiver: GigaBit SX 850nm, VCSEL, supports 62.5/125µm  
 Transceiver: GigaBit LX 1310nm or 1550nm, VCSEL, supports 8.5/125µm  
 Safety: Class 1, eye-safe, laser emitter type; conforms to the applicable requirements per US 21 CFR (J) and EN 60825-1; also UL 1950 applications

## Part Numbers

10/100/1000 Copper In-Line Module: DNM-100  
 10/100/1000 Copper Span Module: DNM-110  
 GigaBit SX Fiber In-Line Module: DNM-200  
 GigaBit 50µm SX Fiber In-Line Module: DNM-220  
 GigaBit SX Fiber Span Module: DNM-210  
 GigaBit 50µm SX Fiber Span Module: DNM-230  
 GigaBit 1310nm LX Fiber In-Line Module: DNM-300  
 GigaBit 1550nm ZX Fiber In-Line Module: DNM-320  
 GigaBit 1310nm LX Fiber Span Module: DNM-310  
 GigaBit 1550nm ZX Fiber Span Module: DNM-330



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