

PHANTOM HD™



Limitless Network Access Solution

Data centers are virtualizing at breakneck speed, but the monitoring infrastructure often struggles to match that pace. Now, Net Optics' Phantom Solution™ uses the Phantom HD™ appliance to ease the virtualization transition by converging the physical and virtual monitoring infrastructures.

Phantom for Virtual Visibility

The Phantom Solution for monitoring in a virtualized computing environment consists of four key components:

The **Phantom™ Virtual Tap** installs in the hypervisor of each physical server to provide access to all traffic in the server, including previously invisible inter-VM traffic.

The **Phantom HD™** is a high-throughput tunneling appliance that decapsulates traffic from numerous Phantom Virtual Taps, aggregates the resulting raw traffic, and sends it at 10 Gbps for inspection by instrumentation layer tools. Phantom HD also encapsulates raw traffic from virtual or physical devices and sends it to remote locations for processing at 10 Gbps.

The **Director™** data monitoring switch is an optional component that can manage the Phantom HD, aggregate raw traffic from the Phantom HD with traffic from physically monitored sources, and filter and switch it to monitoring tools.

Physical monitoring tools are the final component of the Phantom Solution for performance, security, and compliance monitoring in the virtualized environment.

High-Throughput Decapsulation

The Phantom HD terminates tunnelled traffic from Phantom Virtual Taps or other sources. It decapsulates the traffic and defragments those packets that occasionally become fragmented during tunnel encapsulation. The Phantom HD then lays out the resulting raw traffic stream on a monitoring port that is connected to a switch such as Net Optics Director, or to another monitoring tool of choice.

Raw Traffic Encapsulation

The Phantom HD receives raw traffic from either virtual or physical devices, encapsulates it, and tunnels it over to the remote instrumentation layer for inspection.

The Phantom HD supports 10 Gbps continuous throughput. This is ample for handling traffic of interest from many virtual servers on multiple hypervisors and many ESXs. Fiber SR 10 Gigabit ports provide the input for the tunneled traffic and the output for the raw traffic.

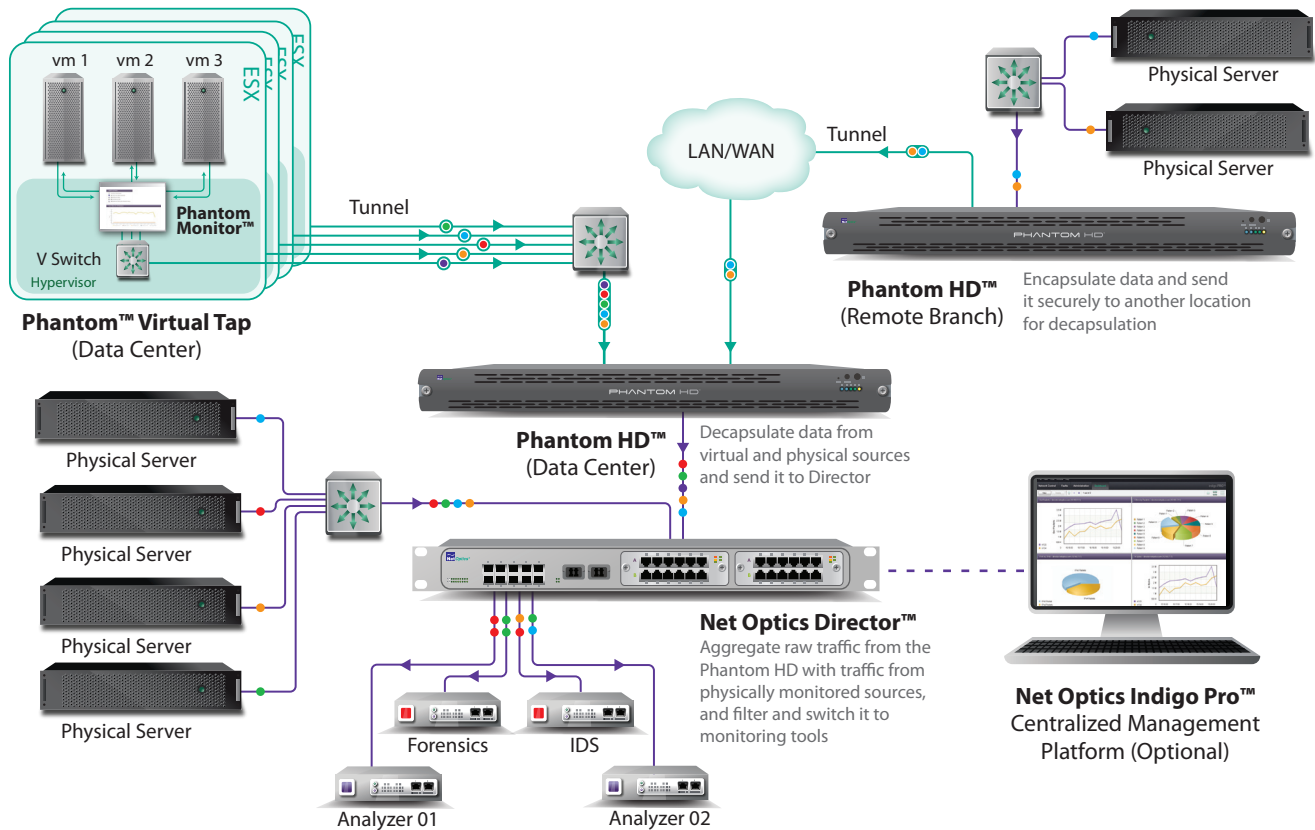
Easy Deployment

The compact, 1U Phantom HD is easy to add to your data center and simple to deploy. It can be conveniently managed by a Director CLI or by Phantom HD's own CLI. Just plug it in, configure the IP addresses, and decapsulation begins.

At a Glance

- Supports monitoring of all virtualized data center traffic with Net Optics Phantom Virtual Tap at high throughput
- Delivers overall capacity of 20 Gbps in 1U rack-mount appliance
- Encapsulates or decapsulates tunneled traffic at 10 Gbps
- Initiates and terminates encapsulation tunnels
- Encapsulates and tunnels raw traffic to remote monitoring switch or tool at 10 Gbps
- Handles fragmentation and defragmentation of tunneled packets
- Managed either directly or through Net Optics Director family appliances
- Optimized for use with Net Optics Phantom Virtual Tap
- Enables monitoring of virtual network traffic in a virtualized computing infrastructure with physical tools
- Improves network visibility and security threat management in virtualized computing environments
- Deploys quickly and simply

PHANTOM HD™ High-Throughput Tunneling Appliance



The Phantom HD turns virtual traffic into physical packets and works with Net Optics Network Access and Management Solutions. It aggregates traffic from remote facilities to your destination of choice.

Specifications, chassis

Functional

Purpose: Decapsulates tunneled traffic and sends raw traffic to monitoring switch or tool

Tunneling protocol: GRE

Fragmentation: Automatic defragmentation

Throughput: 10 Gbps

Device management: Direct (SSH), or through Net Optics Director (requires software version 5.x)

Operating

Operating Temperature: 0°C to 35°C

Storage Temperature: -10°C to 70°C

Relative Humidity: 10% min, 95% max, non-condensing

Mechanical

Dimensions: 1.75" high x 23.5" deep x 19" wide

Mounting: 19" rack mount (1U)

Weight: 26 lbs (11.8kg)

Ports

Tunnel in: (1) 10 Gbps SFP+

Data out: (1) 10 Gbps SFP+

Management: 100 Mbps RJ-45

Console: RS-232 serial DB9

Electrical Specifications

Power: 100-240VAC, 47-63Hz 650W PFC

Redundancy: Dual modules

Maintenance: Power supplies are hot-swappable

Indicators

Power, disk activity, network 1 activity, network 2 activity, over-temperature warning

Certifications

FCC, CE, VCCI, and C-Tick certified

Fully RoHS and WEEE compliant

System Requirements

Net Optics Director, software 5.x

Net Optics Phantom Virtual Tap or other source of tunneled traffic

Warranty

All products require an advanced replacement service plan. Service plans with 1 to 5 years coverage are available.

Part Numbers

PT-HD-10-E Phantom HD Appliance, 10G Throughput, Encapsulation

PT-HD-10-D Phantom HD Appliance, 10G Throughput, Decapsulation

PT-HD-20-EE Phantom HD Appliance, 20G Throughput, Encapsulation

PT-HD-20-DE Phantom HD Appliance, 10G Throughput, Encapsulation, 10G Throughput, Decapsulation

PT-HD-20-DD Phantom HD Appliance, 20G Throughput, Decapsulation

SFP Transceiver Module Kits*:

SFP+KT-50SR Module Kit, 10G, Multimode, Fiber, 50µm, w/Cable

SFP+KT-SR Module Kit, 10G, Multimode, Fiber, w/Cable

SFP+KT-LR Module Kit, 10G, Singlemode, Fiber, w/Cable

* One SFP+ transceiver module is required in Director to connect to Phantom HD



5303 Betsy Ross Drive
Santa Clara, CA 95054
Tel: +1 (408) 737-7777
www.netoptics.com