

Ixia Phantom HD™

Network Packet Optimization Appliance for Converged Networks

Data centers are quickly adopting virtualization as a key strategic initiative, but monitoring infrastructures often lack the flexibility to secure traffic from both physical and virtual sources. Now, the Ixia Phantom™ Solution uses the Ixia Phantom HD™ appliance to ease the virtualization transition by converging the physical and virtual monitoring infrastructures. The Phantom HD performs packet management, tunnel decapsulation and network traffic management, all on a single device.

Phantom Solutions for Virtual Visibility

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

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

The **Ixia Phantom HD** is a high-throughput tunneling appliance that performs traffic deduplication to ensure that tools inspect only a single copy of each relevant session. It decapsulates traffic from numerous Phantom vTaps, aggregates the resulting raw traffic, and sends it at 10 Gbps for inspection by instrumentation layer tools. The Phantom HD also strips multiple protocols to allow optimal tool utilization, both physical and virtual.

Highlights

- Support monitoring of all virtualized data center traffic
- Deliver overall capacity of 20 Gbps in 1U rack-mount
- Deduplicate redundant traffic and send traffic of interest to tools
- Initiate and terminate encapsulation tunnels
- Encapsulate or decapsulate tunneled traffic at 10 Gbps
- Handle fragmentation and defragmentation of tunneled packets



The **Ixia Director™** network packet broker 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 Ixia Phantom Solution for performance, security, and compliance monitoring in the virtualized environment.

Ixia Phantom HD Core Capabilities

High Throughput Decapsulation

The Phantom HD terminates tunneled traffic from Ixia Phantom vTaps or other sources. It aggregates inter-VM traffic that has been tunneled out of virtual hosts and encapsulated in new protocols that often make traffic invisible to monitoring tools. The Ixia Phantom HD appliance decapsulates and defragments that traffic, laying out the resulting raw traffic stream on a monitoring port connected to a switch such as the Ixia 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 and is capable of handling traffic of interest from many virtual servers on multiple hypervisors. Fiber SR 10 Gigabit ports provide the input for the tunneled traffic and the output for the raw traffic.

Deduplication and Filtering

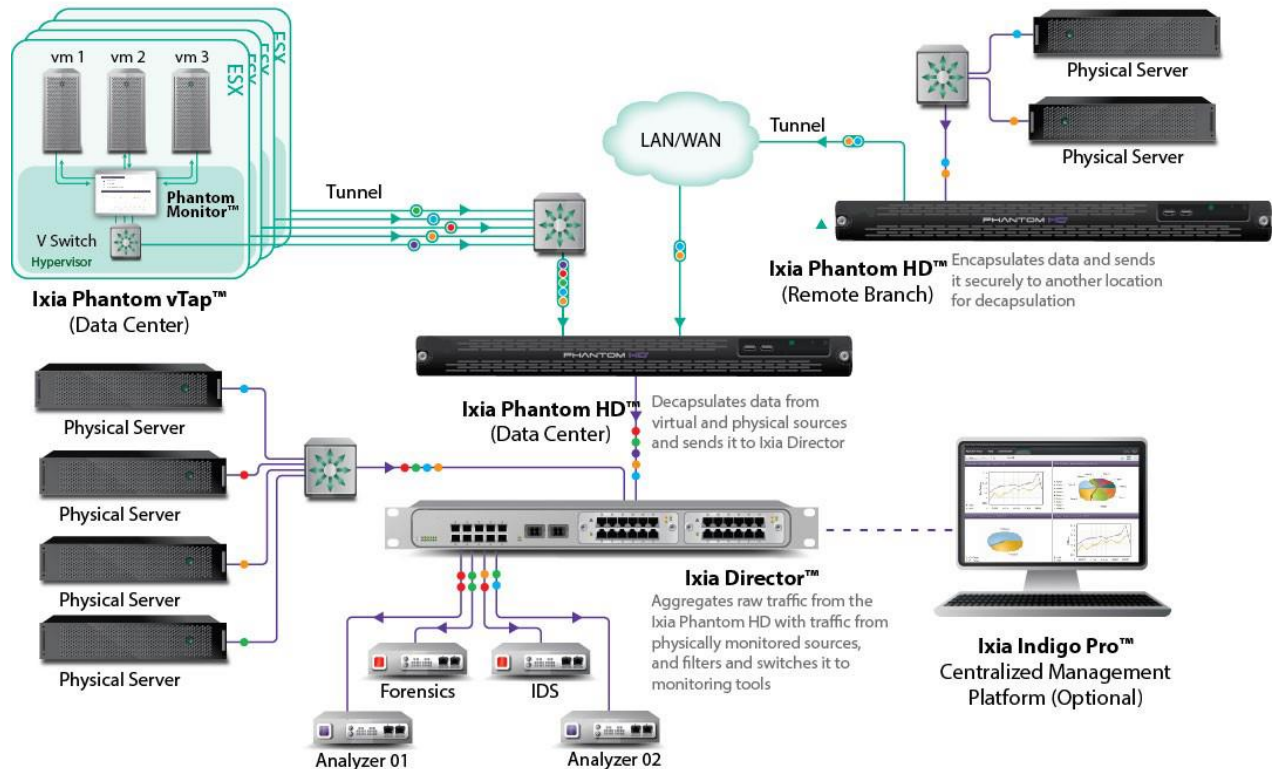
The Ixia Phantom HD deduplicates redundant traffic from all areas of the network, eliminating tool overprovisioning with duplicate traffic, supporting tool lifespan and efficiency, and avoiding imprecise error reporting. The Phantom HD also performs sophisticated filtering, including BGP-based IP filters, and supports up to 5000 egress filters.

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 an Ixia Director CLI or by Phantom HD's own CLI. Just plug it in, configure the IP addresses, and decapsulation begins.

Key Features

- Supports monitoring of all virtualized data center traffic with Ixia Phantom vTap at high throughput
- Delivers overall capacity of 20 Gbps in 1U rack-mount appliance
- Deduplicates redundant traffic captured from various other areas of the network and sends tools unique traffic of interest
- Initiates and terminates encapsulation tunnels
- Encapsulates or decapsulates tunneled traffic at 10 Gbps, including routing traffic to remote, centralized monitoring switch or tool
- Handles fragmentation and defragmentation of tunneled packets
- Manages either directly or through the Ixia Director family of appliances
- Optimized for use with Ixia Phantom vTap



The Ixia Phantom HD turns virtual traffic into physical packets and works with Ixia's network access and management solutions. It aggregates traffic from remote facilities to your destination of choice.

Specifications

Functional	
Purpose	Decapsulates tunneled traffic and sends raw traffic to monitoring switch or tool. Device management: Direct (SSH), or through
Tunneling Protocol	GRE
Fragmentation	Automatic defragmentation
Throughput	10 Gbps
Device Management	Direct (SSH), or through Ixia Director (requires software version 5.x)
Operating	
Operating Temperature	0°C to 35°C Relative Humidity: 10% min, 95% max, non-condensing
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	Console: RS-232 serial DB9
Electrical	
Power	100-240VAC, 47-63Hz 650W PFC Maintenance: Power supplies are hot-swappable
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
Ixia Director, software 5.x Ixia Phantom vTap or other source of tunneled traffic

Ordering Information

PT-HD-10-E

Ixia Phantom HD Appliance, 10G Throughput, Encapsulation

PT-HD-10-D

Ixia Phantom HD Appliance, 10G Throughput, Decapsulation

PT-HD-20-EE

Ixia Phantom HD Appliance 20G Throughput, Encapsulation

PT-HD-20-DE

Ixia Phantom HD Appliance, 10G Throughput, Encapsulation 10G Throughput, Decapsulation

PT-HD-20-DD

Ixia Phantom HD Appliance, 20G Throughput, Decapsulation

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

Learn more at: www.keysight.com

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