

Net Optics Takes Big Leap Forward at Interop: Total Virtual Visibility Into the Cloud

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—Glenn Evans, Lead Engineer/Architect, Interop



Phantom Virtual Tap, Director xStream Pro, HD8 Fiber Tap, Indigo Pro

Industry:
Information Technology

Objectives:
Transform the InteropNet with total, real-time virtual visibility for monitoring access. Provide network connectivity, security and manageability to 15,000+ attendees; and enable exhibitors to demo their new offerings and communicate business information reliably. Support expansion of the cloud and network virtualization.

Approach:
Net Optics taps all 10G links between its co-locations, with the Phantom Virtual Tap providing total, nonintrusive visibility. Each co-location maintains three feeds to the Internet for a total 9Gbps. Net Optics Director Pro aggregates InteropNet’s many monitoring points and redirects traffic to the various tools monitoring the network, sending data to vendors Fluke, JDSU, and NetScout. Net Optics also taps Internet feeds to and from the actual show floor in Las Vegas.

Technology Improvements:

- Gain the ability to passively monitor critical network traffic
- Implement IPv6 addressing structure
- Provide total visibility of both physical and virtual traffic
- Monitor and manage traffic both within and outside the cloud
- Ensure security and availability for all networked communications

Project Outcomes:
Interop earned improved user satisfaction, network security and availability. With total monitoring visibility into all InteropNet traffic, the NOC team can gather critical forensic data to protect network health, enhance troubleshooting and use its resources most cost-efficiently.

As one of the world’s most comprehensive IT events, Interop is an important clearinghouse for the world’s most promising innovations. The show brings together technology and business to incubate new partnerships and seed vital resources needed for growth. Interop employs thousands of people from scores of countries and attracts over 15,000 attendees—all hungry to learn about and market the latest ideas in cloud computing, virtualization, security, and more. Security and availability concerns are foremost for all attendees.

Interop’s dedicated network, known as InteropNet, is a major feature of the event—a vital conduit for communications traffic and the means for exhibiting flagship solutions developed by attendees. Interop chooses the most respected vendors and network architects, who collaborate closely to build this totally interoperable network on forefront technology. InteropNet helps publicize and speed adoption of emerging technologies—for example, the evolution of InteropNet into cloud computing gained momentum this year, with over half of the network now hosted in the cloud.

For the InteropNet, visibility is a top priority—which inspired the Network Operations Center (NOC) to turn to Net Optics: The company’s new Phantom Virtual Tap™ offers total nonintrusive visibility, making it ideal for safeguarding and helping manage attendees’ business-critical traffic.

Additionally, participation of the Net Optics Director™ family—featured in last year’s InteropNet—will now be enhanced by the addition of Director Pro™, for its ability to aggregate monitoring points and redirect data to the diverse tools monitoring the network—advanced protocol analyzers, forensic recorders, and VoIP analyzers among others.

Net Optics’ key role in InteropNet

Glen Evans, the lead engineer and architect for InteropNet said, “We’re very excited about seeing Phantom Virtual Tap and Director Pro in action this year. Net Optics always brings the best thinking to our network challenges—and with attendees showcasing their flagship products here via the InteropNet, there’s no room for compromise on integrity and availability. That’s why we chose Net Optics.”

Year after year, Interop is a locus for leading-edge technology solutions. “As this major event advances even farther into cloud computing, we at Net Optics are proud that they place their trust in us to provide monitoring access for their latest-and-greatest network,” said Bob Shaw, CEO & President of Net Optics. “Monitoring a network that spans the United States is something our customers do every day.”

“ We’re really impressed with the ability of the Phantom Virtual Tap™ and Director Pro™ to help us deliver next-generation monitoring access at Interop.”

—Glenn Evans, Lead Engineer/Architect, Interop

Creating InteropNet's state-of-the-art architecture

Each year, engineers build the Interop network in California, then ship it to Las Vegas. Equipment that is assembled and configured in the California warehouse provides local access for exhibitors' booths and all wireless access at the event. In addition, the network handles all action taking place off the show floor, such as the keynote address.

The rest of the network is hosted in three co-locations provisioned by Qwest Communications. These are located in Sunnyvale, California—the primary location—as well as in New Jersey and Denver. The Sunnyvale, California and Denver Qwest "colos" deliver Internet connectivity to the Las Vegas show.

Phantom Virtual Tap—total virtual visibility arrives

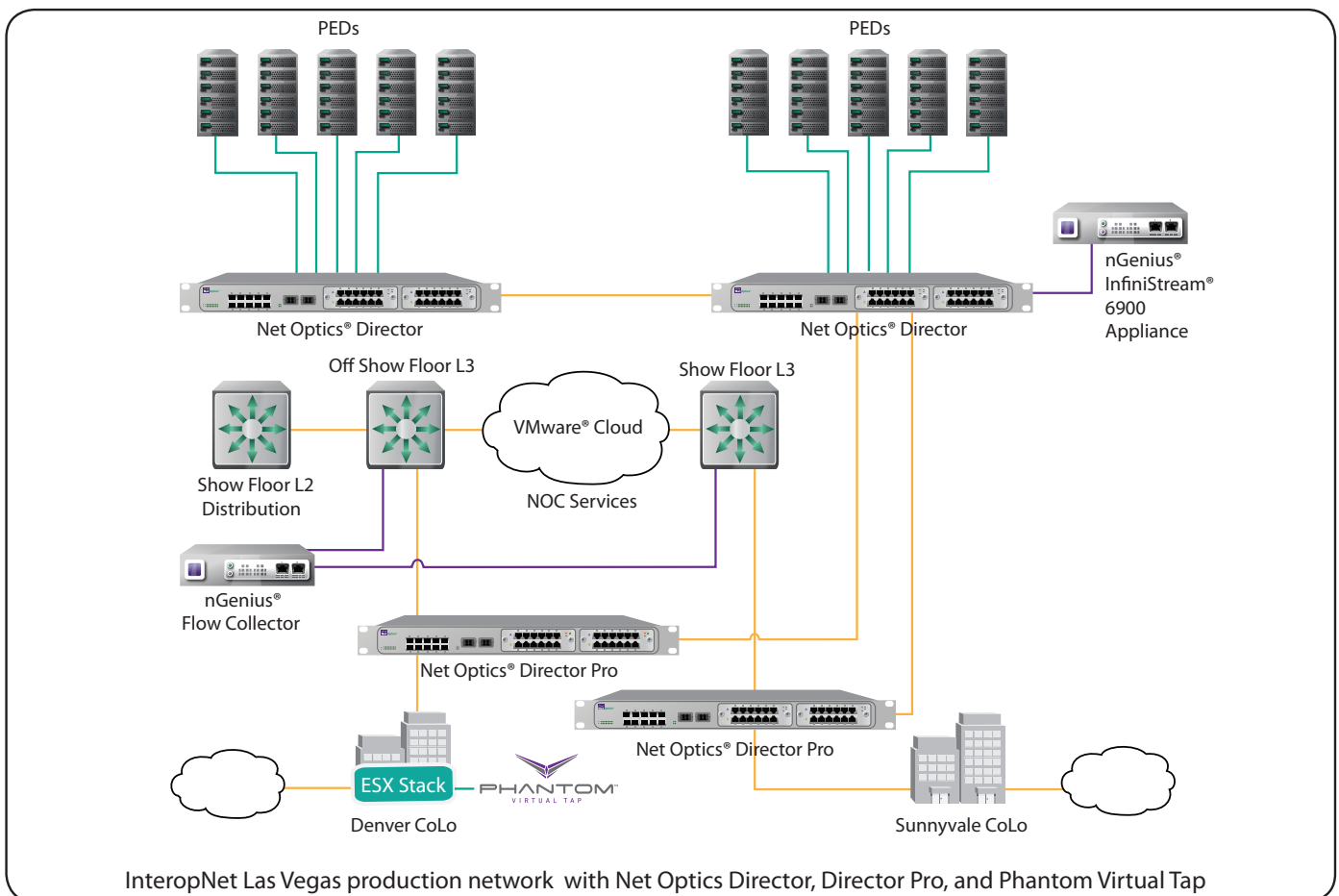
A Tap leader and innovator for 15 years, Net Optics raises the bar this year with its all-new Phantom Virtual Tap, a landmark solution that's purpose-built to deliver nonintrusive visibility and control of inter-VM communications and network traffic in VMware ESX/ESXi environments. Phantom Virtual Tap lets users protect data, deny unauthorized access, fix errors and sustain normal operations. Participation of the Phantom Virtual Tap marks the industry debut of a Tapping solution that can integrate physical and virtual networks.

In addition to delivering never-before visibility into the virtual environment, Phantom Virtual Tap is the only virtual Tap that can push traffic to either physical or virtual tools. Companies transitioning to a virtual data center get a perfect fit for their physical tools—protecting the value of a major investment. This year at Interop, traffic will be captured by NetScout's Infinistream. Phantom Virtual Tap integrates kernel-level monitoring into the heart of the hypervisor switching system and supports "bare metal" installations regardless of vendor.

Director Pro™ delivers world-class flexibility and 10G performance

The Director platform offers the NOC team unprecedented flexibility for aggregating the InteropNet's many monitoring points and redirecting traffic to the various tools monitoring the network. This year the vendors are Fluke, JDSU, and NetScout. The Director sends these different vendors the traffic that is most important to them.

Net Optics has tapped all 10G links between co-locations—each maintaining three feeds to the Internet for a total of 9Gbs. The company also taps Internet feeds to and from the actual show floor in Las Vegas, which covers all of the classes and keynotes taking place at Interop.



Net Optics 10 GigaBit Fiber Tap HD8

Notes a Net Optics team member, “We’re taking our feed from the HD Tap and putting it into the Director Pro. From that, we will be able to supply a feed to the show itself, with all Internet traffic routed through our fiber inline HD tap. We’re also providing those links to Fluke, JDSU, and NetScout from the HD Tap, running from the Director to the HD Tap and then out.”

Director Pro also adds a greater breadth of statistics capacity—including the key utilization of IPv6, a protocol that is changing the way the people access the network and fast gaining in importance. With the IPv4 addressing scheme reaching its upward limits, all networks will soon transition to the IPv6 addressing structure. How that is implemented is of great interest to everyone in networking, so the ability of Director Pro to collect those statistics is extremely important going forward. Director Pro allows monitoring of the assets between IPv4 and IPv6, which yields real-time reporting of what comes into the NOC and goes out to the show floor. In addition, Director Pro offers InteropNet its superior dynamic load balancing capability and allows filtering into Layer 7 using Deep Packet Inspection.

Indigo Pro enables robust monitoring through a single Web interface

The ability of Director Pro to deliver the Indigo Pro™ Management Platform is yet another major advantage for the InteropNet. Indigo Pro lets the NOC team monitor and manage all Net Optics devices through a Web interface. Using Indigo Pro at the various co-locations, the team receives real-time data. “If a link goes down in Denver or Sunnyvale during the Las Vegas show,” notes one NOC team member, “we will know it—even before it hits the event. We can pinpoint its location and fix it, with this broader view of what goes on in the network.”

As a sponsor of the InteropNet for the third year in a row, Net Optics is adding substantial value to the event—helping to expand its capabilities and move into total, transparent network access, with all the benefits that delivers.

To learn more, visit www.netoptics.com

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