



- The Fastest Way to Root Cause

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# Agenda

- Introductions
- About Fluke Networks
- Why OptiView XG?
- Feature Overview
- Demonstration
- Trade-In Program



# About Fluke Networks



# Fluke Networks...

- Fluke Networks and Fluke are operating companies of Danaher Corporation (DHR)
  - 2010 Revenue: \$13B
- Over 500 employees worldwide
- Approximately 45% of revenue from outside the U.S.
- #1 Provider of Ethernet test sets
- Used by 98 of the Fortune™ 100
  
- Worldwide Headquarters: Everett, WA
- *Major Facilities: Colorado Springs, CO; Sunnyvale and Fremont, CA; Duluth, GA; Bridgewater, NJ; Beijing and Shanghai China*

# Key Lines of Business

## Copper and Fiber Testing

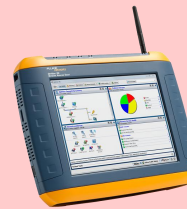


OptiFiber



DTX CableAnalyzer

## Network Analysis



OptiView XG



Network Time Machine



## Portable Network Test



EtherScope Series II  
Network Troubleshooter



LinkRunner Duo

## Wireless



AirCheck  
Wi-Fi Tester



AirMagnet Enterprise



## About Your Presenter

- Tony Fortunato is a Sr Network Performance Specialist with The Technology Firm ([www.thetechfirm.com](http://www.thetechfirm.com)) who has experience with training, design, implementation, and troubleshooting networks since 1989.
- Tony will teach or troubleshoot on your network, with your staff and tools as part of his customized onsite training service.



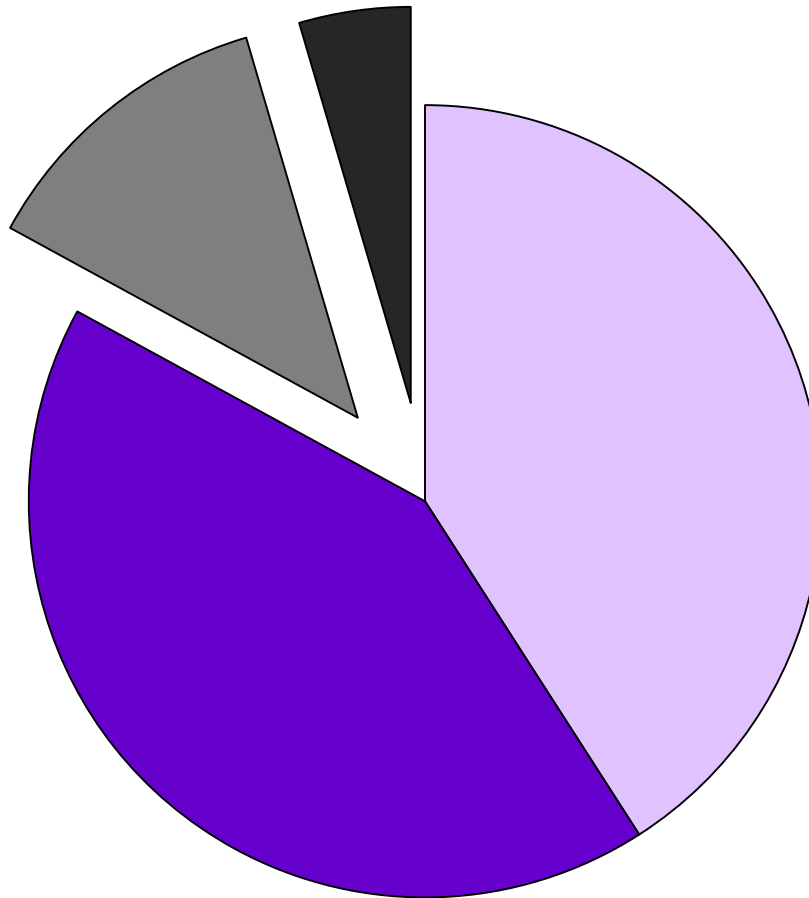
**THE TECHNOLOGY FIRM**



# Why OptiView XG?



# “Performance Problems Take Too Long to Solve”



- Critical Issue
- A Concern
- Somewhat of a Concern
- Not a Problem

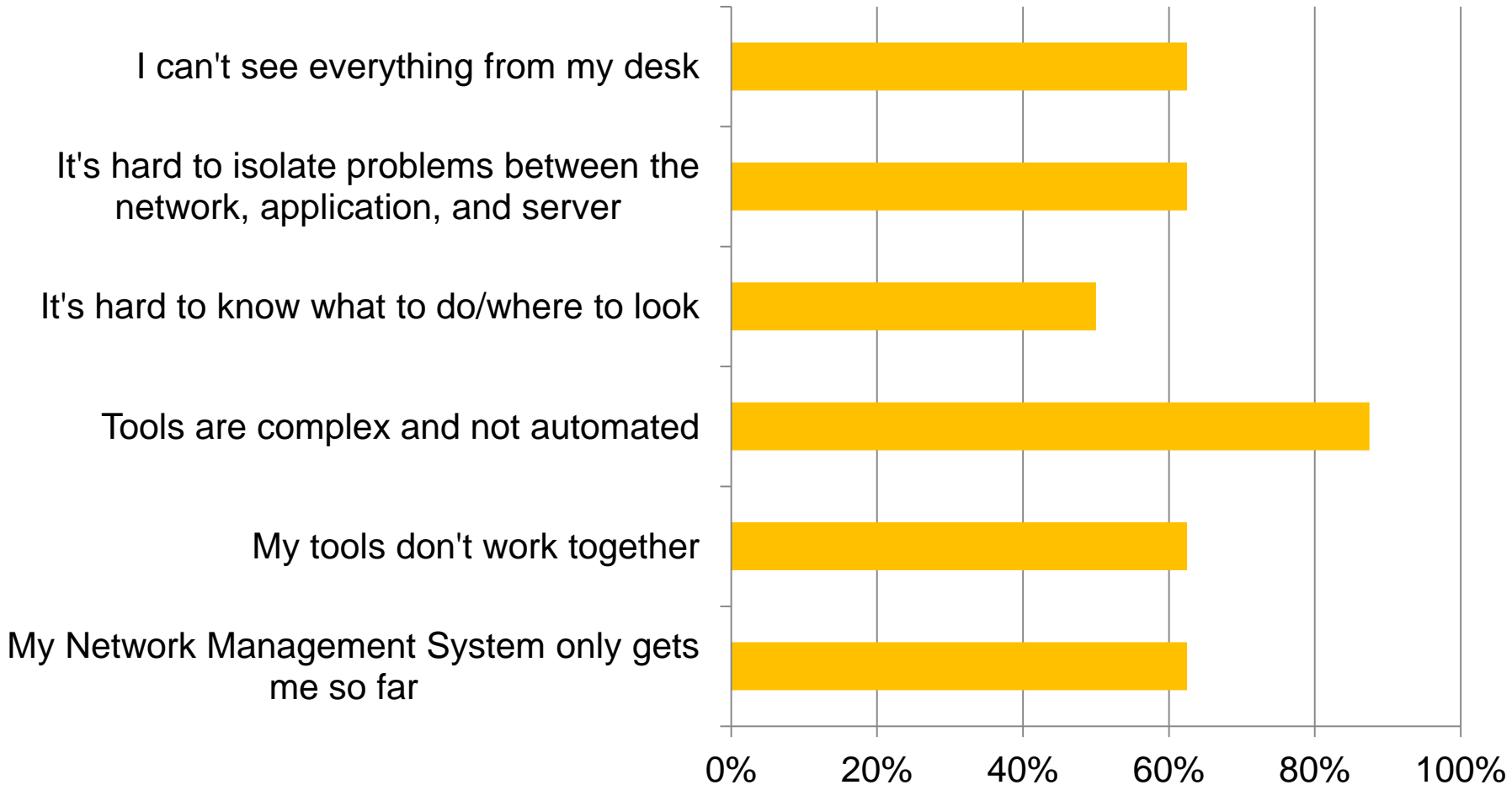
Poll of 88 Customers



# What Is A Performance Problem?

- Many books, tools and training still concentrate on **outages** and how to **fix** things, but what about when things are **up**, but **slow**
- For example; if you use Microsoft ping, they are small packets, one second apart using ICMP
- Do your applications look like that on the wire – probably not!

# “Performance Problems Take Too Long to Solve”





## “Performance Problems Take Too Long to Solve”

- I can't see everything from my desk
  - *Why? ACL's, Firewalls, Unmanaged Equipment, Carrier Networks*
- Its hard to isolate problems between the network, application and server
  - *What info do you provide the other departments*
- Its hard to know what to do/where to look
  - *What is your baseline or methodology*
- Tools are complex and not automated
  - *If you don't know what to look for any tool would look complicated*
- My tools don't work together
  - *Tool separation and integration is a major challenge*
- My network management system (NMS) only gets me so far
  - *Is your NMS portable and accessible if the network is down?*

# A NETWORK is not a pretty fluffy cloud



Client  
Tony



Patch  
Cable



Face  
Plate



Cabling



Patch  
Panel



Floor  
Switch



Fibre  
To  
Core



Core  
Switch

How do you check the various points in your network?



Cabling  
To Router



Router



Webserver



Copper  
To  
Server



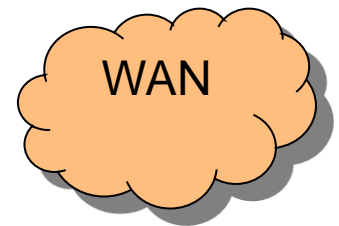
Core  
Switch



Cabling  
To Switch



Router



WAN



# My NMS only gets me so far; I can't see or solve everything from my desk

**OptiView XG picks up where your NMS leaves off**

- Proactive, granular analysis
  - *Before problems arise, you already have the information you need to solve them*
  - *Finds problems that NMS can miss*
  - *Helps develop a baseline*
  
- Tablet design with custom high performance hardware (10G / wireless)
  - *At home at the Network Engineer's desk, in the data center, or at the end user – wherever you need to get in line to solve problems*
  - *Eliminates issue of accessing your tools if the network is down*



# Tools are complex, not integrated, and don't work together

## Everything you need in one cutting-edge tablet

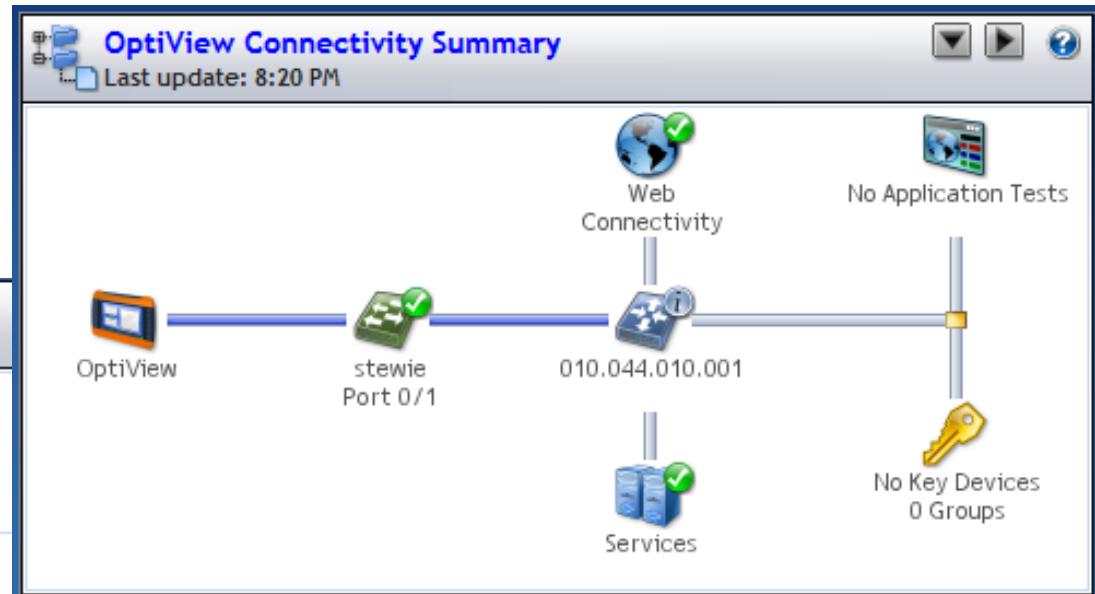
- All-in-one integrated functionality with customizable dashboard views
  - *Eliminates time wasted switching between tools and trying to correlate mentally*
  - *Instant view of anything important to you and your network*

# Can't tell where to look / start It's hard to tell whether it's the application, server, or network.

- Path and infrastructure analysis
  - *Instantly determine if the problem is in the server, application, or the network*

**Networks and Devices**  
Discovery complete: 10:33 AM

 2 IPv4 Subnets	 1 IPv6 Subnets	 0 Wireless Networks
 1 Routers	 1 Switches	 1 Servers
 2 Printers	 0 VoIP Devices	 7 Hosts
 12 Wireless Devices		





It's hard to tell whether it's the application, server, or network.

## OptiView XG offers simplified root cause analysis

- **Application-centric analysis**
  - *Gets to root cause of application problems*
- **Virtualization**
  - *Finds problems in virtualized environments*

# Hardware Notes

2 inches thin

10.25in,  
1024x768 Display

eSATA Port

Three USB 2.0 Ports

VGA Port

32 simultaneous remote connections  
with AES encryption support

Two, hot-swappable batteries;  
Over two hours of operation,  
36 hours in sleep mode  
3 hours to charge  
•Optional charging station and  
batteries available

•OPVXG-BATT-KIT

19V /4.7A Power

Under 5 pounds



# Wireless Notes

External Omni Antenna  
(Removable)  
**5 Ghz: 2.6 dBi**  
**2.4 Ghz: 2.1 dBi**  
Reverse SMA connector



External Directional  
Antenna (Removable)  
**5 Ghz: 7.0 dBi**  
**2.4 Ghz: 5.0 dBi**  
*Only for Rx, no Tx*  
Reverse SMA connector



Wireless port may be used  
as a management port

Seven Internal antennas  
Analysis, performance,  
spectrum  
**5 Ghz: 3.2 dBi**  
**2.4 Ghz: 1.1 dBi**

# Wired Notes

10G SFP+ Port  
10GBASE-LR - 1310 nm  
10GBASE-LRM - 1310 nm  
10GBASE-SR - 850 nm

4GB Capture Buffer

10/100/1000M  
RJ-45  
Management Port



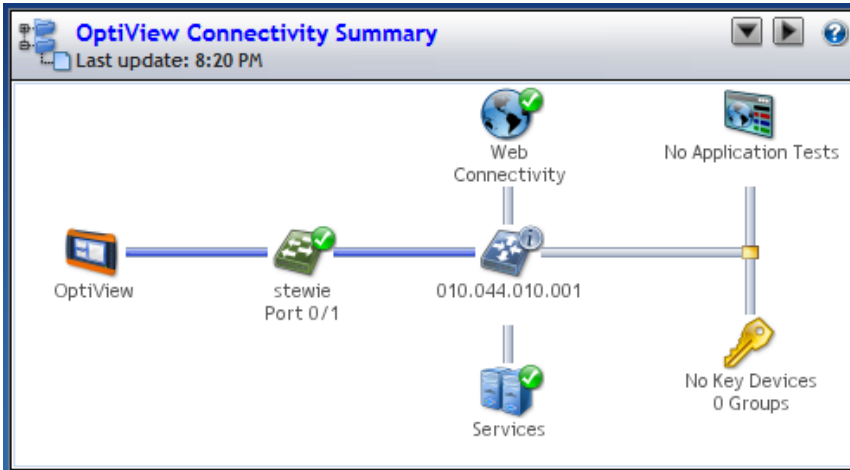
100/1000M SFP Port  
100BASE-FX - 1300 nm  
1000BASE-SX - 850 nm  
1000BASE-LX - 1310 nm  
1000BASE-ZX - 1550 nm

Dual 10/100/1000M  
RJ-45 Ports

Two, hot-swappable batteries;  
Over two hours of operation,  
36 hours in sleep mode  
3 hours to charge

- Optional charging station and batteries available

• OPVXG-BATT-KIT



The Tablet for Network Engineers

# OptiView XG Features



# OptiView<sup>®</sup> XG Capture Key Features

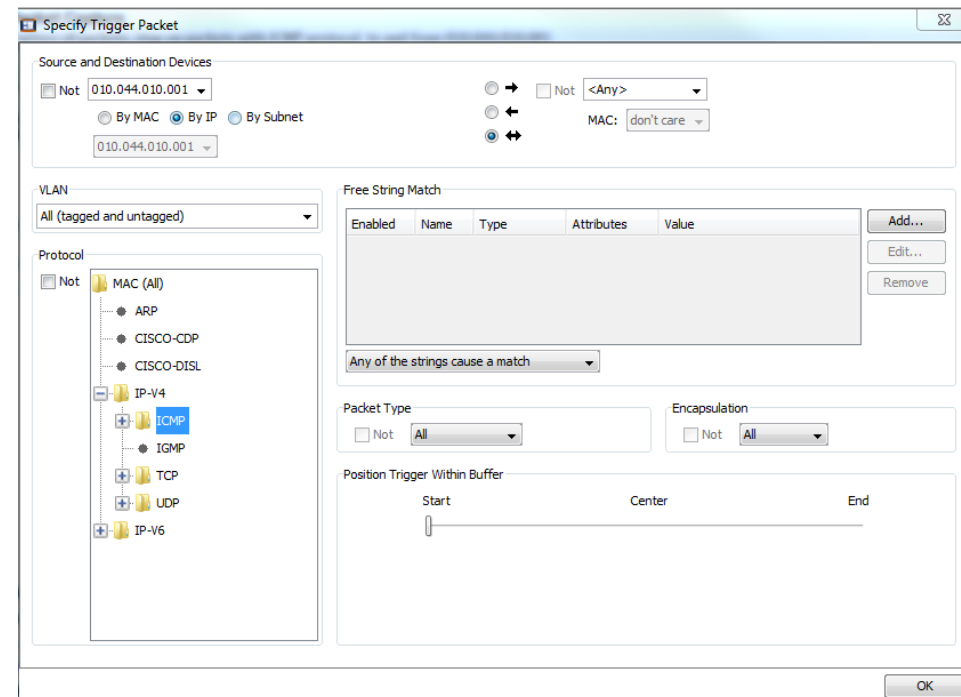
## 10 Gigabit Analysis

Analyze and capture traffic at 10 Gigabit full line-rate

Use “Trigger Packet” to stop capture

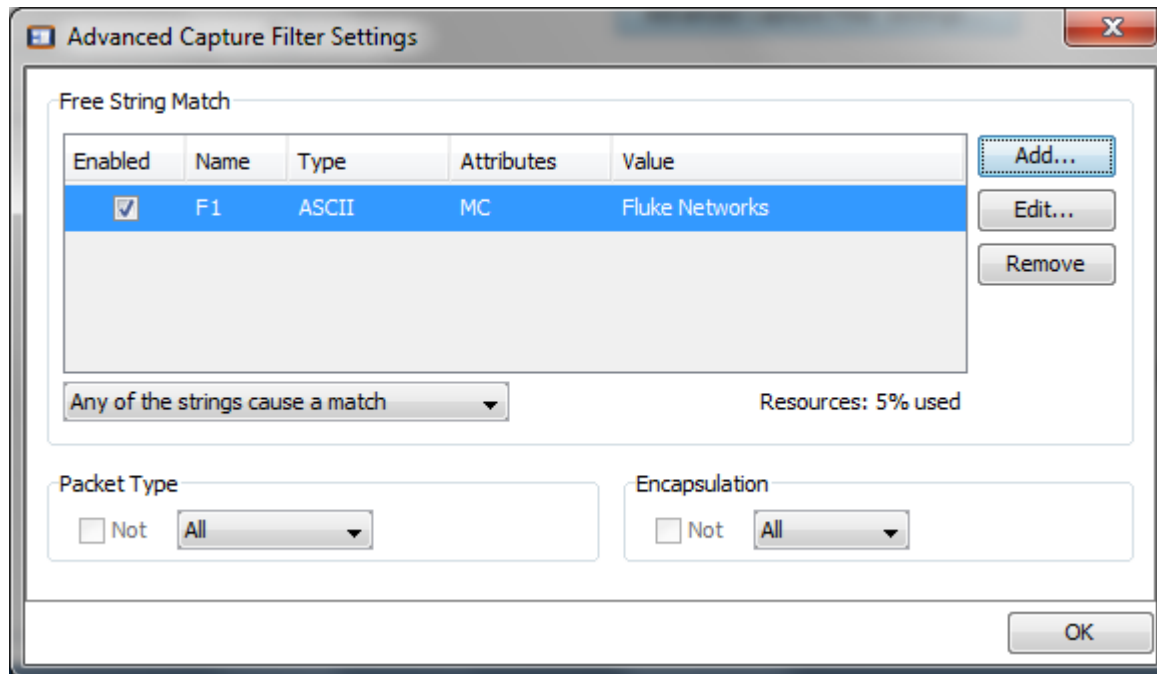
4GB Capture Buffer

VLAN Analysis on trunk ports



# Capturing Packets Gets A Little Easier

- Free String Match is helpful when trying to capture packets, especially with multi-tiered applications



# OptiView<sup>®</sup> XG Key Features

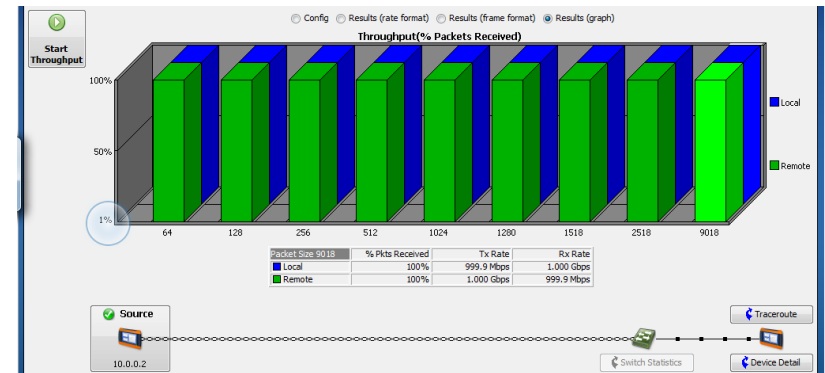
## Performance Testing

Ensure you're getting the bandwidth you're paying for.

Generate up to 10GBps full duplex using two OptiView XG's

Generate up to 1GBps full duplex using the low cost LinkRunner<sup>™</sup> Reflector

Size	Remote Results [Local ---> Remote]		
	Local Tx	Remote Rx	% Remote Rx
	1000 <sub>MB</sub> ↔		
64	2,976,190	2,976,190	100%
128	1,689,188	1,689,188	100%
256	905,796	905,796	100%
512	469,924	469,924	100%
1024	239,462	239,462	100%
1280	192,306	192,306	100%
1518	162,548	162,548	100%
2518	98,502	98,502	100%
9018	27,658	27,658	100%



# OptiView<sup>®</sup> XG

## Key Features

### Integrated Wired and Wireless

Analyze and troubleshoot your wired and wireless network as one with XG

Three Wi-Fi radios allow simultaneous discovery, analysis, and spectrum analysis

**Power Control**  
OptiView

Wireline Ports : On

Wi-Fi 1 (general) : On

Wi-Fi 2 (AirMagnet) : On

Spectrum Analyzer : On

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Wireline Ports A, B, C, D

On

Off

---

Wi-Fi 1 (general use)

On

Off

---

Wi-Fi 2 (AirMagnet use only)

On

Off

---

Spectrum Analyzer

On

Off

The screenshot displays the OptiView XG software interface. The top section shows a spectrum analyzer graph with three traces: Max-Hold (yellow), Max (red), and Avg (green). The x-axis is labeled 'Frequency (GHz)' and ranges from 2.42 to 2.492. Below the graph is a heatmap showing signal intensity across a frequency range, with a color scale from 4.35% (blue) to 39.88% (red). The bottom section shows a navigation menu with options like Reports, About OptiView, Find an OptiView, OptiView on the Web, AirMagnet WiFi Analysis, and Close OptiView. The right side of the interface features a 'Start AirMagnet WiFi Analysis' panel with sub-options: WiFi Analyzer PRO, Spectrum XT, and Survey PRO/Planner. The bottom of the window includes buttons for 'OptiView Settings', 'Help', and 'Exit'.

# OptiView<sup>®</sup> XG Key Features

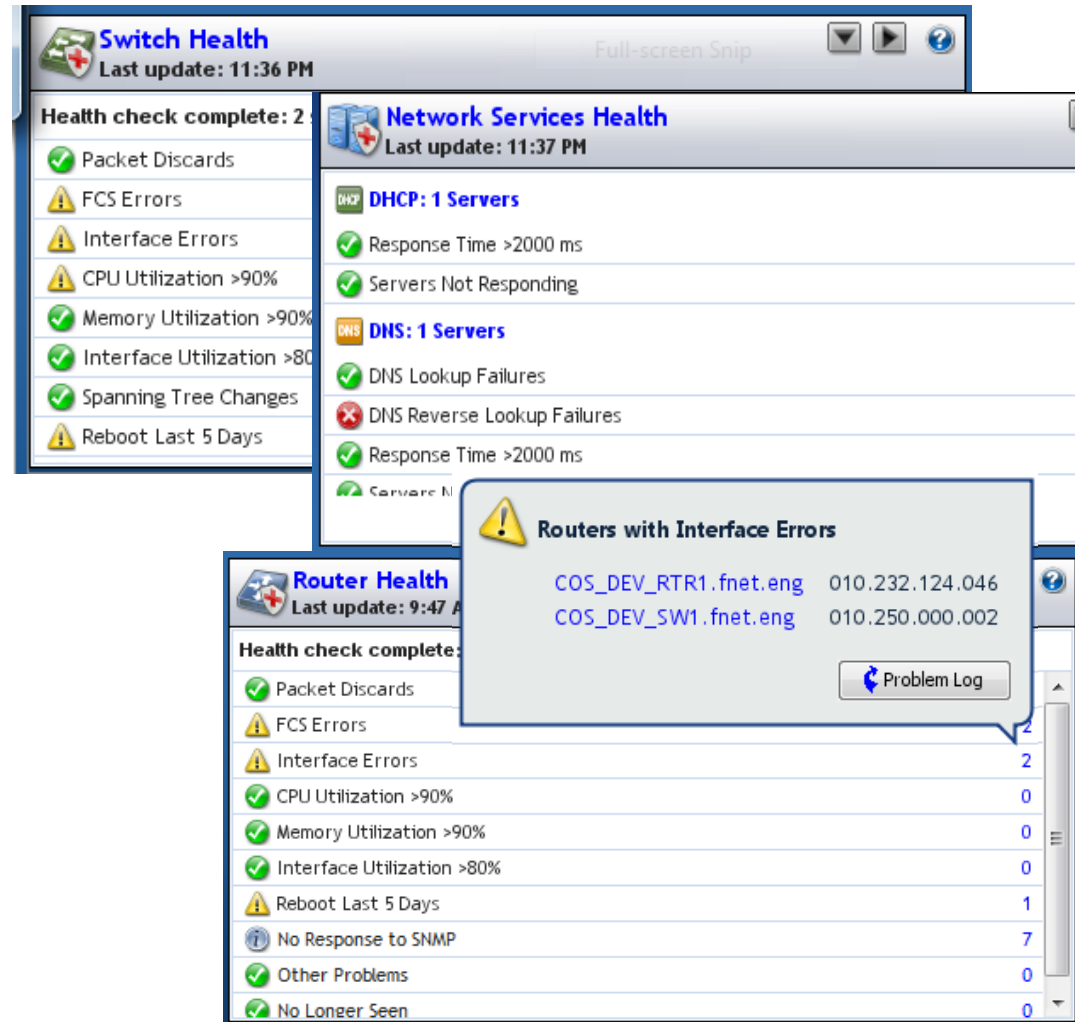
## Health Scans

Find problems with key network infrastructure or services with one quick look

Automatic or user-set thresholds

Quick, automatic discovery

One touch brings up detail on problem devices



The screenshot displays the OptiView XG health monitoring interface. It features three main panels: 'Switch Health', 'Network Services Health', and 'Router Health'. Each panel shows a list of health checks with status indicators (green checkmarks for good, yellow triangles for warnings, and red crosses for errors). A pop-up window titled 'Routers with Interface Errors' is also visible, listing specific devices and their IP addresses.

**Switch Health**  
Last update: 11:36 PM

- Health check complete: 2
- Packet Discards
- FCS Errors
- Interface Errors
- CPU Utilization >90%
- Memory Utilization >90%
- Interface Utilization >80%
- Spanning Tree Changes
- Reboot Last 5 Days

**Network Services Health**  
Last update: 11:37 PM

- DHCP: 1 Servers
  - Response Time >2000 ms
  - Servers Not Responding
- DNS: 1 Servers
  - DNS Lookup Failures
  - DNS Reverse Lookup Failures
  - Response Time >2000 ms

**Router Health**  
Last update: 9:47 AM

- Health check complete: 2
- Packet Discards
- FCS Errors
- Interface Errors
- CPU Utilization >90%
- Memory Utilization >90%
- Interface Utilization >80%
- Reboot Last 5 Days
- No Response to SNMP
- Other Problems
- No Longer Seen

**Routers with Interface Errors**

COS_DEV_RTR1.fnet.eng	010.232.124.046
COS_DEV_SW1.fnet.eng	010.250.000.002

[Problem Log](#)

# OptiView® XG Key Features

## Customizable Dashboards

Dashboards provide the ability to see data the way you want to which helps you make decisions quickly .

Create customized dashboards and layouts for sites, business groups or even applications.

Choose a Dashboard Panel

**Available Panels:**

- Application Panels**
  - Folder Overview
  - Application Overview
  - Results
  - History
  - Analysis
- Virtualization Panels**
  - Hypervisor Health
  - Hypervisors with Problems
  - Virtual Machines with Problems
  - Key Hypervisor Overview
- Traffic Analysis Panels**
  - Local Utilization
  - Top Protocols
  - Top Hosts
  - Top VLANs

**Panel Description:**  
Click a panel to view description.

**Site Health**  
Last update: 11:12 AM

Key Device Groups	Devices with Problems
✓ Colorado Springs	0 of 1
✓ Everett	0 of 1
✓ Phoenix	0 of 1
✓ Sunnyvale	0 of 1

The screenshot shows a comprehensive dashboard with the following sections:

- Web Connectivity:** Shows connectivity for fukenetworks.com/ with metrics for DNS Lookup (78ms), TCP Handshake Port 80 (47ms), and HTTP GET (46ms).
- Wireless Port:** Disconnected status with a list of services including WLAN Controller, Default Router, DHCP Server, and Primary DNS.
- Top MAC (All) Hosts:** Cumulative data for the last 5 seconds, showing % of Bandwidth Sent and % of Bandwidth Received.
- Network Overview:** A network diagram showing connections between Internet, Services, 12 Routers, and 0 Switches.
- Hypervisor Health:** Health check complete: 0 hypervisors. Lists metrics like Packet Discards, FCS Errors, Interface Errors, Interface Utilization (>75%), Reboot Last 5 Days, and Other Problems.
- Problems Overview:** A pie chart and summary of Errors (3), Warnings (4), Info (12), Resolved (0), and Total (19).
- Related Tasks:** A list of actions such as 'Create a new dashboard', 'Export dashboard to a file', and 'Delete selected dashboard'.

# OptiView<sup>®</sup> XG

## Key Features

### Path and Application Infrastructure Analysis

Easily find the path between two points in the network and collect performance along that link to immediately identify problems along that path

Quickly identify and analyze the underlying network infrastructure required to deliver mission critical application

COS_DEV_WEB1 Application: Oracle Web Server   Analysis	
Path Analysis	
✓ Packet Discards	0
⚠ FCS Errors	2
⚠ Interface Errors	2
⚠ CPU Utilization >90%	2
✓ Memory Utilization >90%	0
✓ Interface Utilization >80%	0
✓ Spanning Tree Changes	0
⚠ Reboot Last 5 Days	1
✓ No Response to SNMP	0
⚠ Other Problems	3
✓ No Longer Seen	0


✖ Oracle Web Server	4 devices; 7 of 12 tests with problems
✖ COS_DEV_WEB1	3 of 5 tests with problems
✖ ICMPv4 Ping	Test failed: Timeout occurred.
⚠ TCP Connectivity	Reset received attempting to open port: HTTP (80)
⚠ Device Resources	Memory Utilization >90%
✓ Interface Monitor	Monitoring 1 interfaces
✓ Path Analysis	3 of 3 devices in path with problems
✖ sr-cos-1_dhrtm.net	1 of 2 tests with problems
✖ ICMPv4 Ping	Test failed: Timeout occurred.
✓ Interface Monitor	Monitoring 2 interfaces
✖ COS_DEV_RTR1.fnet.eng	2 of 3 tests with problems
✖ ICMPv4 Ping	Test failed: Timeout occurred.
⚠ Interface Monitor	Monitoring 2 interfaces; problems found
✓ NetFlow Monitor	Monitoring top conversations
⚠ COS_DEV_SW1.fnet.eng	1 of 2 tests with problems
✓ ICMPv4 Ping	Sent 3 / Rcvd 3 (0.0% loss)
⚠ Interface Monitor	Monitoring 2 interfaces; problems found


# OptiView<sup>®</sup> XG

## Key Features


### Path Analysis

Easily find the path between two points in the network and collect performance along that link to immediately identify problems along that path

 **Path Analysis**
Last update: August 23, 10:48:06 AM




Destination Device:  

Interface:

Source Device:  

Packet Type:  UDP  ICMP  TCP port:

Path Analysis from Churchill to 2200 using TCP port 80

Hop	Name	IP Address	Response Times	Port In	Port Out
0	 Churchill	010.044.010.106		----	ASIX AX88772 USB2.0 to Fast Et... 100 Mb
0.1	 stewie			FastEthernet0/5 VLAN 1 Port 5 100 Mb	FastEthernet0/8 VLAN 1 Port 8 100 Mb
1	 2200	010.044.010.010	3 ms   3 ms   3 ms	----	----

# OptiView<sup>®</sup> XG

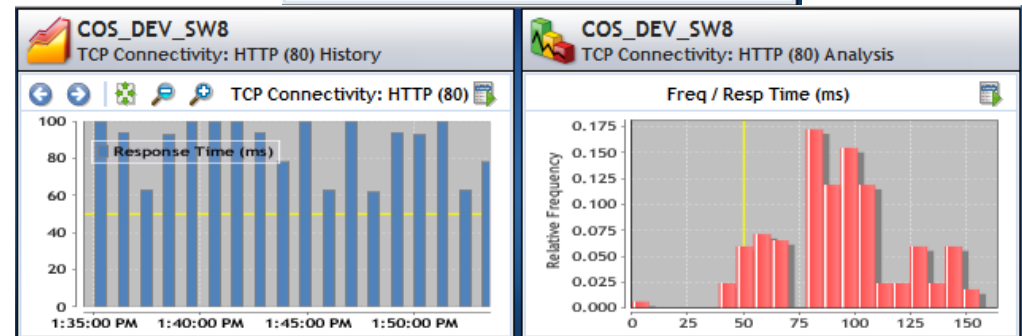
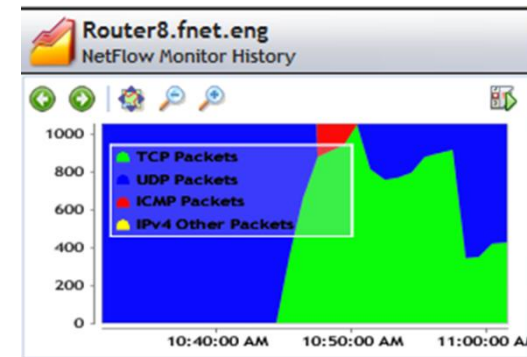
## Key Features

### Granular Data

Some monitoring systems collect data at intervals (5 minutes). A lot can happen in that time to disrupt the network.

This feature collects network data at much shorter intervals (30 seconds) for real-time troubleshooting

Collects NetFlow data for more detailed usage information.



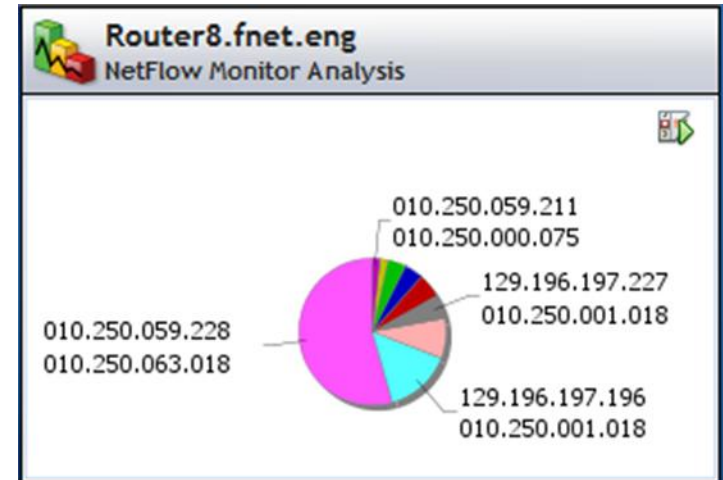
# OptiView<sup>®</sup> XG

## Key Features

### Proactive Troubleshooting

Leave OptiView XG running on your desk to collect performance information.

Get a 'head start' on solving a problem by using the granular data collected for the last 24 hours and the built in automated analysis.



Application Health  
Last update: 11:28 AM

Key Device Groups	Devices with Problems
✘ Oracle	1 of 2
✔ PeopleSoft	0 of 1
✔ Onyx	0 of 1
✔ Sybase	0 of 1
✔ Exchange 2007	0 of 1

# OptiView<sup>®</sup> XG Key Features

## Guided Troubleshooting

Quickly solve problems using the guided troubleshooting built-in to the XG.

The XG suggests possible solutions for problems that are found on the network.

The screenshot shows the OptiView XG software interface. The main window displays a 'Problem Log' with the following table:

Severity	Device	Problem	Detection Time	Resolution Time	IP Address
Error	COS_LAB	Key device port open failure on 0.10.250.001.205 port 8...	2/7/11 1:10 PM		0.10.250.001.20
Error	DTMEVTPC4277	Duplicate IP: 192.168.000.177 MAC: 0024d6936b9e	2/7/11 1:25 PM		192.168.000.17
Error	hydra.tc.fluke.com	Bad subnet mask 255.255.255.000	2/7/11 1:12 PM		129.196.180.09
Error	www.flukenetworks.com	Key device port open failure on 129.196.231.098 port 8...	2/7/11 1:10 PM		129.196.231.09
Error	www.flukenetworks.com	Key device port open failure on 129.196.231.098 port 8...	2/7/11 1:10 PM		129.196.231.09
Warning	COS_DEV_SW 11.finet....	Interface errors exceeded 0 on one or more interfaces	2/7/11 2:01 PM		0.10.250.000.03

The selected problem, 'Duplicate IP address', is expanded to show the following details:

**Dup. IP**  
**Duplicate IP address**  
 Two devices on your network are using the same source IP address simultaneously. Change the IP address of one of the devices to fix the problem.  
**Note:** If two devices use the same IP address at different times (e.g., DHCP reissuing expired leases), no problem will be reported. A valid IP address should be obtained from your LAN administrator.  
**Action**  
 To search for unused IP addresses:  
 1. Select **Discovery**.  
 2. Select the IP Address column to sort by IP address.  
 3. Find and use an unused IP address in the subnet.  
 4. Ping the address to make sure it is not being used.  
**Note:** When this error is resolved, the analyzer changes the reported "error" to "resolved" in the Problems Log screen.

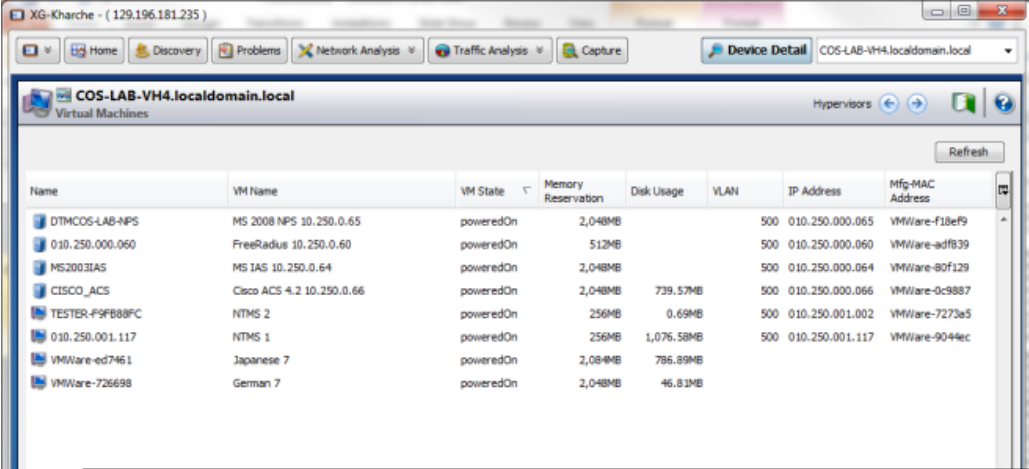
At the bottom of the interface, there is a 'Related Tasks' section and a status bar showing '100Mb', 'Active VLAN: Native', and 'Status'.

# OptiView<sup>®</sup> XG Key Features

## Virtualization Support

Built-in capability to analyze Virtual Machines and their host VMware ESX servers.

Quickly track virtual server health at-a-glance and ensure your mission critical applications never fail.



Name	VM Name	VM State	Memory Reservation	Disk Usage	VLAN	IP Address	Mfg-MAC Address
DTMCOG-LAB-NPS	MS 2008 NPS 10.250.0.65	poweredOn	2,048MB		500	010.250.000.065	VMWare-f18eF9
010.250.000.060	FreeRadius 10.250.0.60	poweredOn	512MB		500	010.250.000.060	VMWare-adf839
MS2003IAS	MS IAS 10.250.0.64	poweredOn	2,048MB		500	010.250.000.064	VMWare-80f129
CTISCO_ACS	Cisco ACS 4.2 10.250.0.66	poweredOn	2,048MB	739.57MB	500	010.250.000.066	VMWare-0c9887
TESTER-F9F88FC	NTMS 2	poweredOn	256MB	0.69MB	500	010.250.001.002	VMWare-7273a5
010.250.001.117	NTMS 1	poweredOn	256MB	1,076.58MB	500	010.250.001.117	VMWare-9044ec
VMWare-ed7461	Japanese 7	poweredOn	2,084MB	786.89MB			
VMWare-726698	German 7	poweredOn	2,048MB	46.81MB			

VM Name	VM State	Memory Reservation	Disk Usage
MS 2008 NPS 10.250.0.65	poweredOn	2,048MB	
FreeRadius 10.250.0.60	poweredOn	512MB	
MS IAS 10.250.0.64	poweredOn	2,048MB	
Cisco ACS 4.2 10.250.0.66	poweredOn	2,048MB	739.57MB
NTMS 2	poweredOn	256MB	0.69MB
NTMS 1	poweredOn	256MB	1,076.58MB
Japanese 7	poweredOn	2,084MB	786.89MB
German 7	poweredOn	2,048MB	46.81MB

# OptiView<sup>®</sup> XG

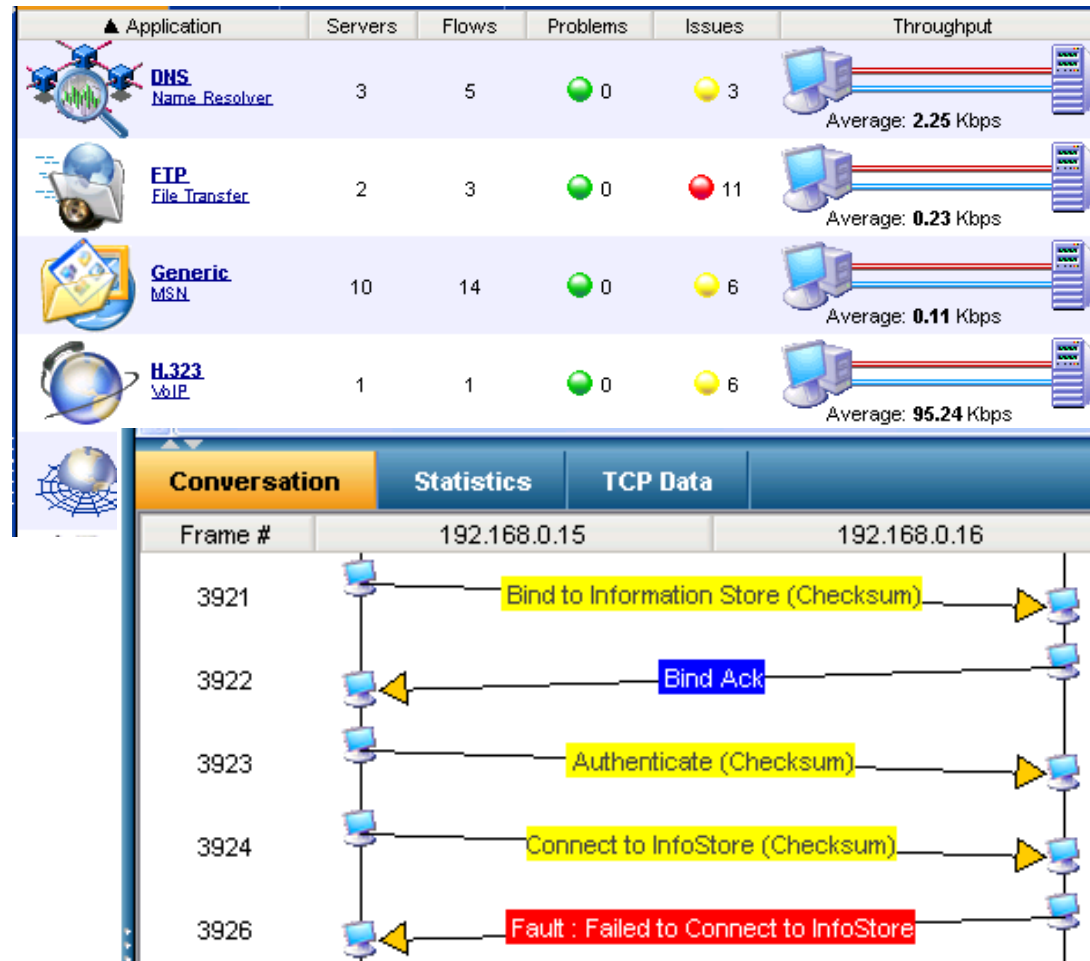
## Key Features

### ClearSight™ Analyzer: Application Centric Analysis

Find application problems without looking at packets

Quickly get a high-level overview of the health of applications on your network with the ability to drill down to gain access to more detailed information

Built-in statistical analysis of capture files speeds problem identification



# OptiView<sup>®</sup> XG

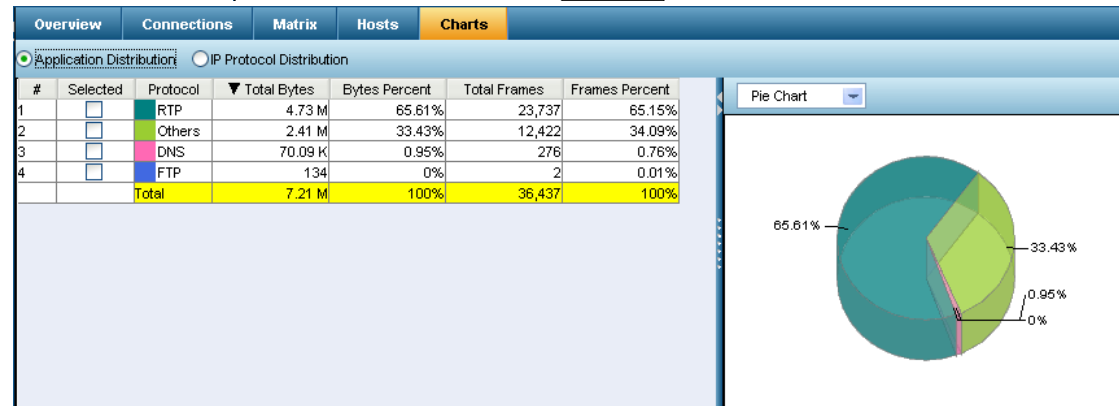
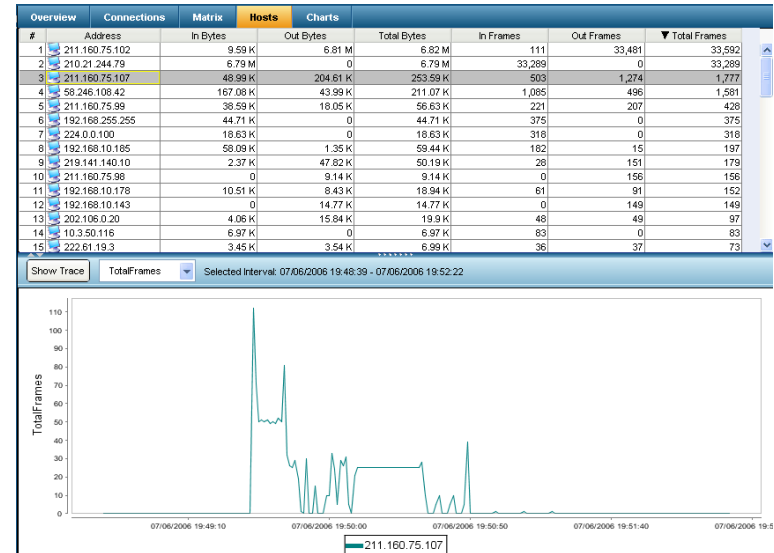
## Key Features

### ClearSight Analyzer: ATLAS

Provides post-capture analysis of large capture files

- Connections
- Applications
- Top Hosts
- Conversation Matrix
- Time Periods

Quickly identify and extract segments of interest for further analysis





# Demonstrations



Quickly Diagnose Issues  
For all the Routers and  
Switches Discovered



Verify the network  
health at a specific  
location



Check Web  
Connectivity



Monitor key assets to analyze  
and troubleshoot network and  
application problems



Track virtual server  
health

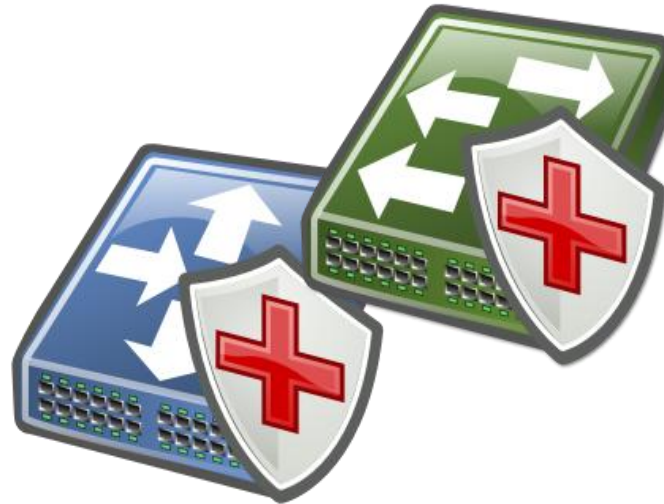
# Demonstrations



Reduce time required to  
solve problems



Monitor network  
infrastructure along the path  
of an Application



# Quickly Diagnose Issues For all the Routers and Switches Discovered

# Quickly Diagnose Issues for all switches and routers discovered

So, how is this useful ?

- *One of the first things a network engineer does everyday when at work is check if there were any issues and check the general health of the network*
- *These health dashboards provide the network engineer with an 'at-a-glance' summary of the issues and health of the network*



# Check Web Connectivity

# Check Web connectivity

So, how is this useful?

- *Instantly find out how fast or slow your web connection is with the dashboard.*
- *Additionally since you can switch from wired and wireless you can get web performance from wired or wireless perspective. Very useful when a wireless user complains of web performance.*



# Verify the network health at a specific location

# Verify the network health at a specific location

So, how is this useful?

- *Very useful for “in-the-field” troubleshooting if you immediately need to know about how and exactly where you are connected.*
- *Answers the questions what is the bandwidth utilization % and % of packets with errors on the monitored port; instantly*



**Monitor key assets to analyze and troubleshoot network and application problems**



## Monitor key assets to analyze and troubleshoot network and application problems

So, how is this useful?

- *Keep a close eye on critical infrastructure and proactively monitor key assets for the purpose of analyzing and troubleshooting network and application performance*
- *Offers short-term trending of test results– ‘rolling’ 24 hours which means that the UI keeps the last 24 hours worth of data in the graph. This gives a head start on performance problem analysis*
- *Device Resources test provides analysis oversubscribed resources that impact performance by causing an application to become sluggish or stop responding altogether.*
- *Isolate the problem to the network, the server or the application.*



## Monitor network infrastructure along the path of an Application



## Monitor network infrastructure along the path of an Application

So, how is this useful?

- *Monitor remotely from the desk with focus on a path and supporting devices along the path between two end devices*
- *Remote troubleshooting along path to an application server*
- *Monitor multi-tiered applications using the hierarchy structure*
- *Speed up troubleshooting and identify issues impacting application responsiveness by Remotely analyzing the bandwidth utilization of routers to determine the top conversations (flows) and the applications they are running*



# Track virtual server health



## Track virtual server health

So, how is this useful?

- *Eliminate Blind spots resulting from virtualization.*
- *Gives visibility into the VMware environment enabling analysis of hypervisor availability, interface utilization, and resource usage levels.*



# Reduce time required to solve problems



## Reduce time required to solve problems

So, how is this useful?

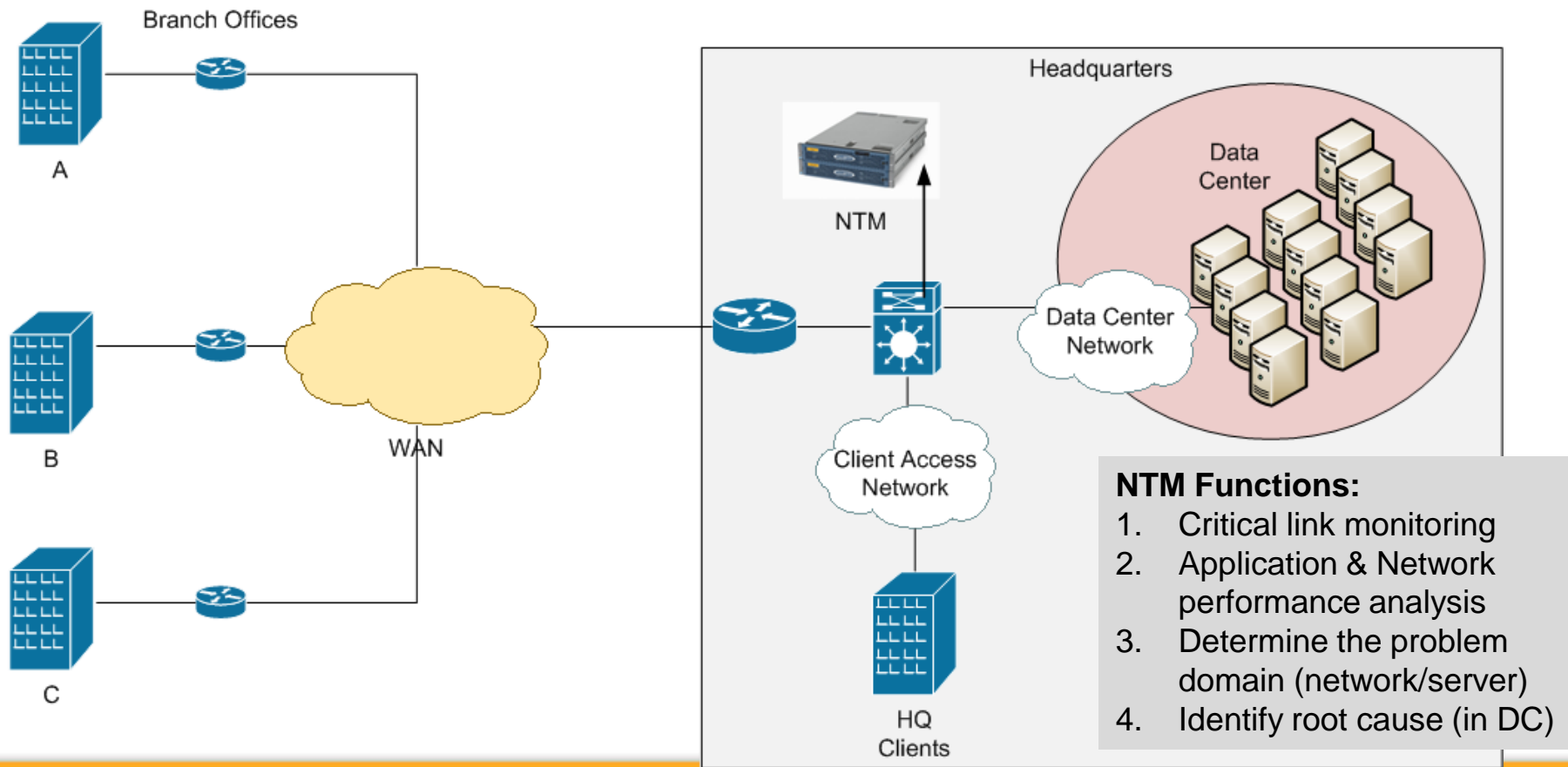
- *Provides solutions for problems detected eliminating the need to remember all the solutions or lookup the solution to a problem elsewhere.*
- *Makes the network professional more efficient.*



# OptiView XG and the Network Time Machine

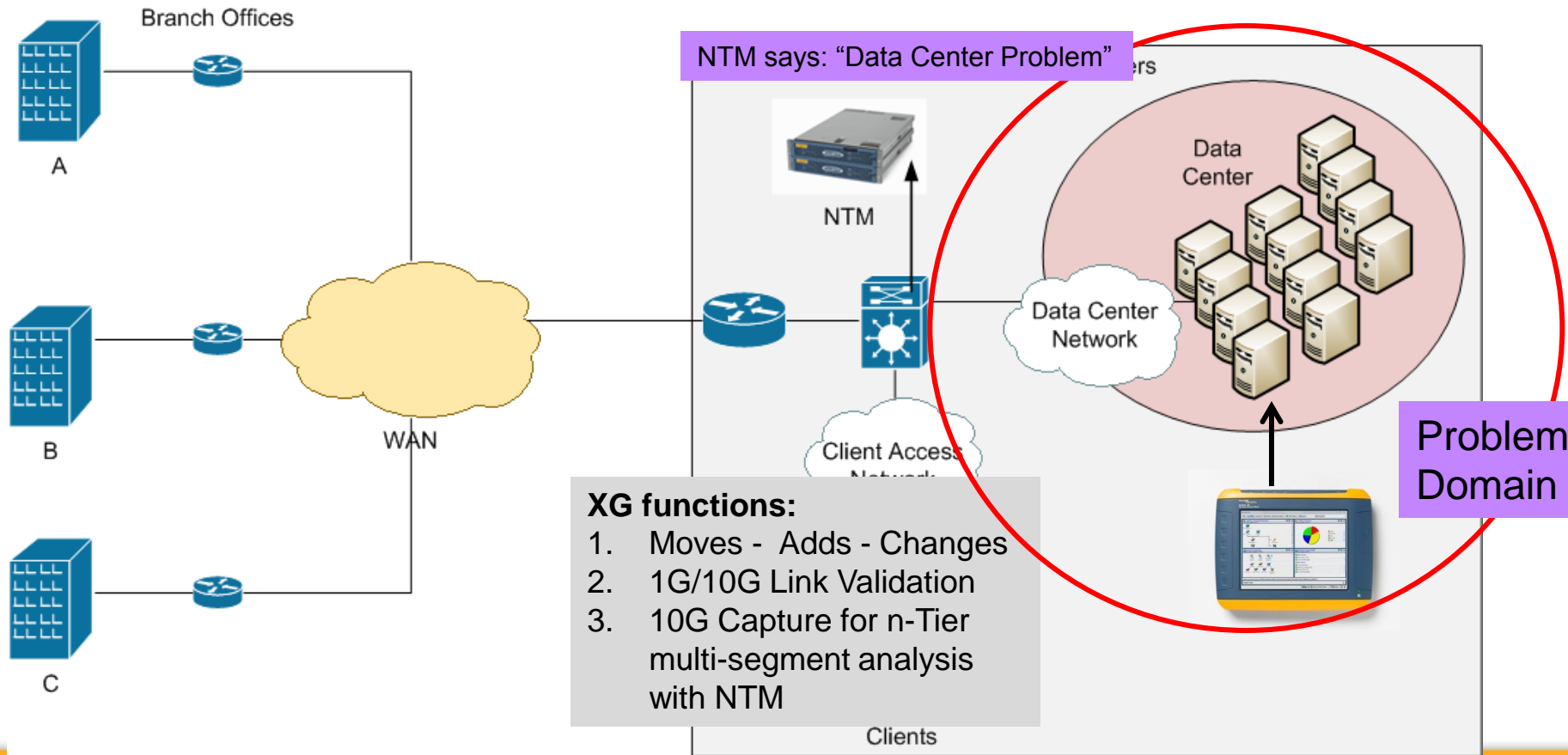
# NTM + XG / NFT Positioning

## NTM in Data Center



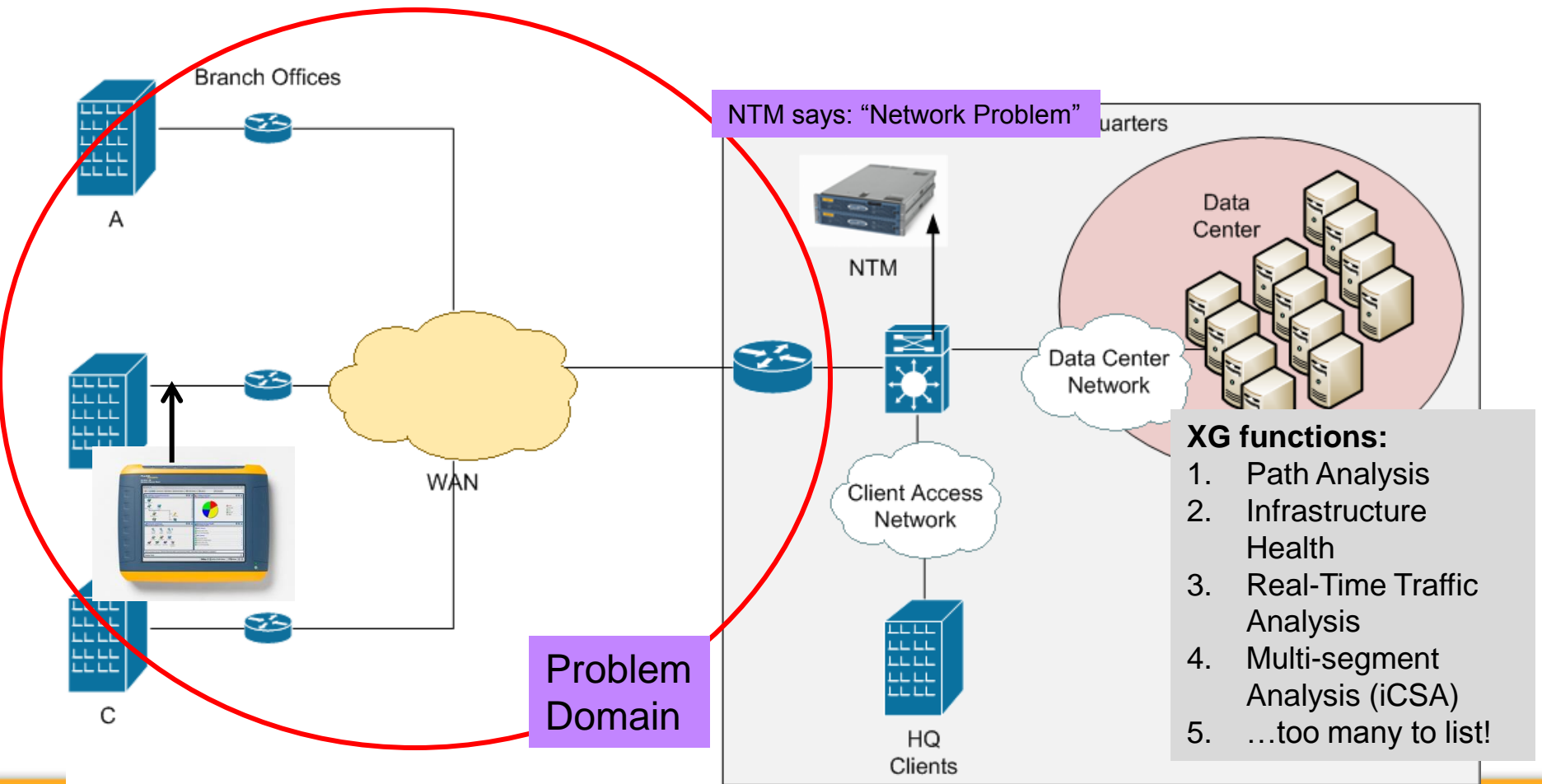
# NTM + XG / NFT Positioning

## XG in Data Center



# NTM + XG / NFT Positioning

## XG or NTM Express in the Network/Remote sites





**Boost staff productivity. Reduce MTTR. Increase line-of-business satisfaction.**

# OptiView XG Value



# Customers Report

- 20% improvement in staff productivity
- 25% reduction in mean time to repair (MTTR)
- 33% reduction in remote site support costs
- 20% decrease in project deployment time

*OptiView Series III customer survey.*

# Solve User Issues Faster

- Instant Analysis – No Set Up
  - *Fast Network Discovery*
  - *Real-time, Granular Data Find intermittent problems NMS's miss*
- Automated Problem Detection
  - *Suggests Solutions*
- Application-Centric Analysis
  - *Solve Application Problems Without Looking at Packets*
- Complete Wi-Fi Support
  - *Solve Security, Coverage, and Interference problems*



***“The network operations team cut the time it takes to isolate and repair problems from an average of 35 minutes to under 5 minutes.”***

*Manager of Network Operations,  
Auction House*

# Cut Remote Site Support Costs

- “Bottleneck Analysis”  
Determines Server or Network Problems
- “Path Analysis” Pinpoints  
Network Performance Problems
- Supports Remote  
Troubleshooting and  
Collaboration

*By eliminating the hundreds of dollars a day that we used to spend on a remote consultant fixing problems, we realized the return on the investment in OptiView pretty quickly.”*

*IT Director, Housing Authority*



## Deliver Projects On Time and Under Budget

- Extensive Reporting
- Automated Discovery of Existing Network Infrastructure
- Health Audits Pinpoint Network Problems that Affect Applications



*We were going to have a third-party run an analysis on our infrastructure to find problems on our network. We could have spent \$80,000 for a week. Instead, we spent far less than half that on the OptiView and now we can do that kind of analysis 365 days a year.”*

*IT Director, Medical Device Manufacturer*

# Maximize Project ROI

## New Application Rollouts

- Debug Issues with Application Centric Analysis
- Analyze Application Paths Across the Network

## Data Center Upgrades

- Verify Link Performance to 10G
- Understand Traffic Flows on Trunk Ports
- Check Virtualized Servers

## Unified Communications

- Path Analysis identifies potential bottlenecks
- Real-time granular NetFlow data help diagnose intermittent quality problems that network management systems miss.
- Measure and troubleshoot VoIP / video performance

## Wireless Network Deployments

- Detect and solve security, coverage, interference, and performance problems on 802.11 a/b/g/n wireless networks.



*“During our VoIP rollout, we were able to show that the existing T-1 line was using less than 10% of its capacity and the additional line the phone company recommended wasn’t required.”*

*Manager of Network Services,  
Wine and Spirits Distributor*



# OptiView XG vs. OptiView Series 3

1. **Customizable Dashboards** - Create screens with the tests you need, organized in a way that reflects your network and applications
2. **Granular Data** – Collect network data in granular detail (30 second intervals) for real-time troubleshooting.
3. **Proactive Troubleshooting** – XG stores all the granular data for 24 hours. This enables you to get a ‘head start’ on the analysis to solve the problem
4. **Path and Application Infrastructure Analysis** – Define a path between two end points, collect performance along that link and immediately identify problems along that path.
5. **10 Gigabit connectivity** – 10 GB Full line rate capture and analysis with a 4 GB capture buffer. Extensive filters and the capability for free-string-match
6. **Guided Troubleshooting** – Get suggestions to solve discovered problems
7. **Integrated Wired and Wireless** – Analyze your Wired and Wireless network as one. The XG also has the capability for spectrum analysis and surveying.
8. **Virtualization Support** – Discover virtual machines and query hypervisors for health information



# Upgrade Programs



# OptiView<sup>®</sup> XG Upgrade Programs

INA Model	INA Purchase Date	Valid GOLD	Upgrade path to XG
Series 3	After Jan 1 <sup>st</sup> 2011	Yes	Customer pays fixed price to upgrade to XG
Series 3	After Jan 1 <sup>st</sup> 2011	No	Customer pays fixed price to upgrade to XG
Series 3	Before Jan 1 <sup>st</sup> 2011	Yes	25% discount on base unit
Series 3	Before Jan 1 <sup>st</sup> 2011	No	15% discount on base unit
Series 2	-	Yes	Fixed discount off any XG mainframe bundle (approximately 25%)
Series 2	-	No	Fixed discount off any XG mainframe bundle (approximately 10%)
Classic	-	Yes	Fixed discount off any XG mainframe bundle (approximately 10%)
Classic	-	No	Fixed discount off any XG mainframe bundle (approximately 10%)

Order 10GbE at time of upgrade and receive a 50% discount  
 OptiView AirMagnet Options may be migrated to XG at no charge



- The Fastest Way to Root Cause