

## Fort Wayne Cardiology improves network performance while reducing IT costs with OptiView® Series III Integrated Network Analyzer

### At a Glance

**Customer:**

Fort Wayne Cardiology

**Industry:**

Health Care

**Location:**

United States of America

**Challenge:**

To improve network performance through diagnosis and ongoing monitoring, and to ensure that investments in new infrastructure will get the desired results.

**Results:**

Fort Wayne Cardiology was able to diagnose and fix major network issues without the one-time extreme expense of a third-party consulting service. In addition, IT staff can now monitor the network to optimize performance, while reducing the time and labor required for ongoing network management.

**Products:**

Fluke Networks OptiView® Series III Integrated Network Analyzer

### Healthcare company saves \$80K in third-party consulting fees, gains 24/7 monitoring

Fort Wayne Cardiology cares for patients at two local offices, 11 regional clinics and 2 area hospitals in the Fort Wayne, Indiana area. Annually, they average nearly 60,000 office and hospital visits and consultations, and approximately 70,000 tests and procedures, including electrocardiograms, stress tests, non-invasive cardiac and vascular imaging, angiograms and interventional procedures and pacemaker/defibrillator device implants. As a busy and growing healthcare provider, Fort Wayne Cardiology relies heavily on technology ... and on its IT department to keep that technology and the network behind it running smoothly. Yet network performance hadn't kept up with Fort Wayne Cardiology's growth. Something had to be done to figure out and fix the problems, to get – and keep – the network healthy.

Upon the hiring of a new IT Director, Fort Wayne Cardiology chose the OptiView Series III Integrated Network Analyzer as a diagnostic and monitoring tool. The OptiView Analyzer offers complete network vision in seconds, displays all seven layers of the network, and combines protocol analysis, active discovery, SNMP device analysis and RMON2 traffic analysis.

With the OptiView Analyzer, the IT staff at Fort Wayne Cardiology are able to monitor traffic, diagnose problems, spot rogue access points, and optimize network speed and performance. The tool would have paid for itself in time and labor costs within a year, but in fact the investment saved the clinic more than double the cost of the OptiView by eliminating the expense of a third-party analysis check. Fort Wayne Cardiology also reduced the time spent on network issues by 5.25 hours of IT staff time per week. That's over 262 hours per year that can be committed to other IT initiatives.

***“We could have spent \$80,000 for a week, versus \$30,000 on the OptiView. And now we can do that kind of analysis 365 days a year.”***

– Brad Landis  
IT Director, Fort Wayne Cardiology



Objective	Benefits achieved
Improve network performance	Problems were identified and fixed, resulting in an overall improvement in the network infrastructure and performance. This included modifying employee behavior that was negatively impacting the network.
Monitor the network	Problems are spotted and dealt with right away, from rogue access points to improper bandwidth usage.
Reduce costs	The company avoided spending \$80,000 on a third-party service, investing less than half that amount in the OptiView Series III Integrated Network Analyzer instead. Now they have a tool on hand for their own use 24/7.



### The challenge: improve and continually monitor the network

When Brad Landis was hired as IT Director at Fort Wayne Cardiology, he started looking for a solution that would allow him to determine the big problems right away and justify the need for IT expenditures for fixing them. With the company rapidly growing, and two main sites plus 11 remote clinics, Brad also wanted to be able to monitor the network on an ongoing basis.

- **Improve network performance.** Brad knew walking into the job that the network had issues. The switches were 10/100, and the uplinks to the core did not have adequate bandwidth. He had to prove to management that there was a problem requiring an upgrade to their infrastructure.
- **Monitor the network to spot problems early.** A huge concern for Brad was monitoring Internet traffic. When employees browse the Internet, they're not just wasting time. They're also using up valuable bandwidth, especially when on a site like YouTube. Brad couldn't monitor all traffic all day, and he was looking at spending at least \$30,000 for software to just block sites. Rogue access points were another recurring problem, putting the network at risk.
- **Reduce costs.** The company had several options for analyzing and monitoring the network, all of which were costly and either one-time or limited solutions. Fort Wayne Cardiology needed a solution that could be used internally and on an ongoing basis, to find problems, prove the need for new equipment, and regularly monitor network usage.

### Fort Wayne Cardiology solves multiple issues with the OptiView Analyzer

Already familiar with the OptiView, Brad knew immediately that was the tool he needed in his new job. He wanted the OptiView for insight into the network's problems so he could fix them and a view of the network's performance over time so he'd be immediately aware of new problems. Although he was concerned with non-business use of the Internet and its impact on employee productivity, he was more concerned with the bandwidth impact on the network caused by viewing streaming media sites. In addition, Brad needed to be able to find and track down rogue access points that put the network at risk. The OptiView Series III Integrated Network Analyzer was the only solution that gave Brad all this functionality. It was an easy decision for him. He only had to justify the costs to the CFO and Medical Director.

When Brad joined Fort Wayne Cardiology, the biggest problem was around the switches. Brad detected that on day one. “Since we had no ability to log any of the traffic, we couldn’t get someone to sign off on a project for switches that may come out to \$30,000 or \$40,000 for equipment,” says Brad. “We had to have facts to prove we needed to invest in the equipment.”

The company could have invested in proprietary vendor switch management software to determine the same thing, but that software would have cost them \$7,000, and then would only diagnose the switch problem. It wouldn’t help Brad monitor traffic. Although the price seemed low, the benefit was limited.

The company also considered outsourcing the analysis. “We were going to have a third-party run an analysis on our current infrastructure to find where we have problems on our network,” Brad says. The company looked into having a consulting firm come in and monitor traffic for a week, and then come back with their findings. “If you’re going to have an actual engineer sitting in your office for a week, he won’t be cheap,” Brad points out. One company quoted him \$80,000 just to do the analysis.

Then, after Fort Wayne Cardiology resolved any issues brought to its attention, the company would have had to pay the consulting firm to come back out and check again to validate the fix. Fort Wayne invested in the OptiView Analyzer instead. “The OptiView gives us the ability to do this ourselves anytime we want. We could have spent \$80,000 for a week, versus \$30,000 on the OptiView. And now we can do that kind of analysis 365 days a year,” says Brad.

Although Brad has used Wireshark on a laptop to do packet capture before, he knew it could turn into a full-time job. With 300 devices on the network, he’d be wading through 65,000 lines of packets to find a problem. Not to mention he knew he’d only get 60% of the packets because of the limitations of using that software on a PC. But the OptiView combined with Fluke Networks’ Protocol Expert software gave Brad the ability to monitor 100% of the traffic and still filter down to the one conversation he wants to watch. Plus easy-to-configure capture triggers means he doesn’t even have to be there when it captures packets. Protocol Expert tracks the communications from server to server or client to server and automatically summarizes the transaction details in an easy-to-understand graphical format, so Brad can spend his time looking over results instead of decodes. “At that point you might as well be a preschooler. You’re going to figure everything out because it [Protocol Expert] narrows everything down even more” says Brad.

Using the OptiView to monitor the network, Brad can drill down to know when traffic isn’t company-related, and then determine which computer is generating the traffic and which web sites that computer is going to. The next step is confronting the employee. Although Fort Wayne Cardiology has a three strikes policy, it only takes getting caught once for an employee to realize the risk and stop the behavior.

The OptiView offered additional features that impressed Brad and made his job easier too. When he saw a demonstration of the OptiView Analyzer, he witnessed the power of OptiView Reporter in moments. Reporter is an optional reporting and documenting package. During the demo, he and the Fluke Networks representative right away found a rogue access point by looking at the network discovery report. Brad says, “I knew right then which add-in I was going to get with the OptiView!”

When there is a rogue access point, Brad can use Reporter to figure out the IP address of the device, and even the port it's plugged into so he knows which floor of the building to go to. If he didn't have Reporter, he says, he could just run a discovery and scroll down the list, but it's nicer to have the report format.

Brad considers operating the OptiView Analyzer common sense. It's easy to use and intuitive. Although he knew factory training was available, he didn't think he needed it because "everything clicked" as he used the tool. "It made a quick learning curve for me to get started," he says.

### The bottom line for Fort Wayne Cardiology

With the OptiView Analyzer, Brad can see the traffic being generated and gather information in real time. He and his IT colleague can see where they need improvement, and they can see where everything is working great.

Brad says the company really had no way of monitoring traffic before. The software in use was Web-based, offering a blue bar for each port that refreshed every five seconds but didn't average. So Brad had only real-time data, and lacked any facts about the long-term average of what the company was using. Brad knew there was a problem, but had nothing to present to make his case. With the OptiView Analyzer, he can now run the analysis all day long for the trending and generate a report. Brad can trend an entire switch and all ports for a week collecting data, then show the CFO where they're having problems. He can gather the facts to make the case, showing which floors and switch needed to be replaced.

Brad used to run reports weekly while trying to track everything down. Now it's monthly. "I may do it every two weeks if something caught my attention," he says.

Brad says the OptiView Analyzer saved the company significant money on employee productivity and bandwidth. Word got around right away and people stopped viewing non-business related streaming media sites. And he doesn't really mind being called the IT Dictator, a title bestowed on him by fellow employees as a result of this crackdown.

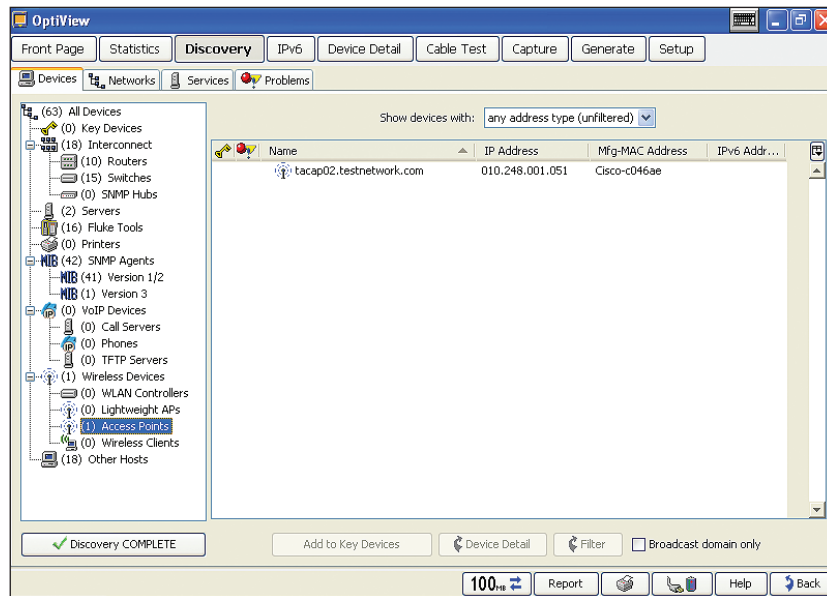
Brad has only praise for the OptiView: "With the OptiView Analyzer, I now am able to see what traffic my network is generating and where it is going in real-time. I am able to gather statistical data with the OptiView Reporter that allows me to show proof on where we need to see improvements and where everything is working great. I love the ability to detect and track a rogue access point. The Protocol Expert gives me the ability to diagnose problems without going through every packet captured."

The OptiView Series Analyzer has become indispensable in Fort Wayne Cardiology's IT department. Brad uses it in monitoring mode 24x7: "It's my left hand, sitting next to me all the time," he says.

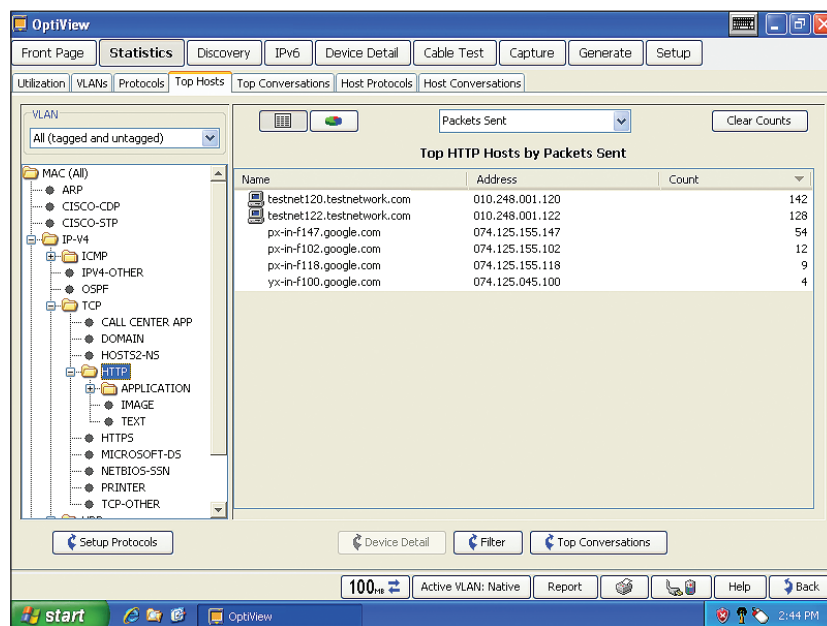
### Summary

The OptiView Analyzer paid for itself right away by eliminating the need for a high-cost external consultant. And the tool continues to add value by giving Brad visibility into the network. He's the first to know about a problem at another location via alerts to his cell phone sent as text messages. Expert packet analysis provides answers without spending days sorting through packets. And Brad can police network usage and find rogue APs. All for less than half the cost of a one-time third-party analysis.

**An inside look at the OptiView Series III Integrated Network Analyzer**



**Figure 1:** Using the OptiView Network Discovery feature makes it fast and easy to identify and locate rogue access points.



**Figure 2:** With the OptiView, you can drill down and differentiate between specific audio, video, image and data applications, and show the level of bandwidth usage of each.



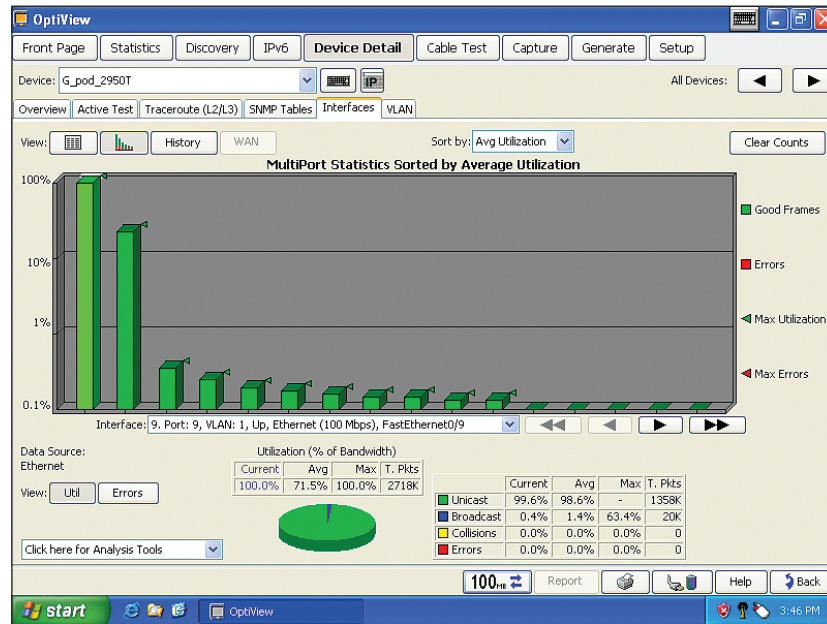


Figure 3: Multi-port switch statistics provide a graphical view of utilization and error rates on each switch port to show oversubscribed or errored ports at a glance.

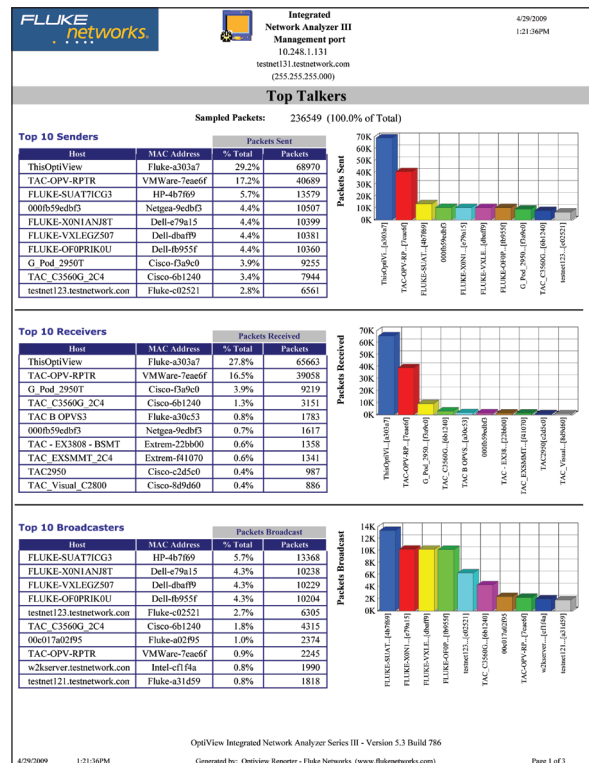


Figure 4: The OptiView can generate HTML reports on Protocols, Top Hosts, Top Conversations, Devices, Networks, Problems and more.

NETWORK SUPERVISION

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Fluke Networks operates in more than 50 countries worldwide. To find your local office contact details, go to [www.flukenetworks.com/contact](http://www.flukenetworks.com/contact).

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