Credit Union Reduces Network Congestion, Improves Productivity, and Gains More than $800,000 in Benefits with OptiView™ Series III Integrated Network Analyzer

HIGHLIGHTS

Goal: For a credit union to monitor and troubleshoot its network in order to improve the reliability and speed of connections to its branch offices, and gain total network visibility from the data center.

Solution: Fluke Networks OptiView™ Series III Integrated Network Analyzer

Results: A projected, cumulative five-year net benefit of $800,594, driven by avoiding investing in new hardware, reduced maintenance costs, and improved productivity. The project has a payback period of three months. Troubleshooting and maintenance costs and time have been reduced, and branch offices have better network and application performance. The bank is gaining more loyal customers because a faster network allows branch offices to provide improved services.

A large credit union has 17 branch offices connected to the credit union headquarters via an MPLS network. Network performance at the branches was slow, and customers sometimes had to wait ten minutes or more for clerks to help with requests. The credit union was looking for a solution that would help improve network and application performance, improve customer service, improve productivity, reduce IT costs, and reduce hardware and maintenance costs.

The credit union chose the OptiView™ Series III Integrated Network Analyzer, which 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. Although the OptiView™ Series III Integrated Network Analyzer can be used as a portable tool, the credit union instead uses it in its data center to monitor its LAN and WAN by directly connecting it to the span port of its core router. The OptiView™ Series III Integrated Network Analyzer is on at all times, and four different sessions are displayed on a 42-inch plasma screen, so that network performance is constantly tracked and visible.

As a result of the deployment, the credit union will realize a projected, cumulative five-year net benefit of $800,594 from the project, driven by avoiding investing in new hardware, reduced maintenance costs, and improved productivity. The project has a payback period of three months. Troubleshooting and maintenance costs and time have been reduced, and branch offices have gained better network and application performance. Ultimately, the bank is gaining more loyal customers because a faster network allows branch offices to provide improved services.

Benefits

OBJECTIVE	BENEFITS ACHIEVED
Improve network performance	With the OptiView™ Series III Integrated Network Analyzer, the credit union has been able to track down network congestion, and with that information, has significantly improved network and application performance at its 17 branch offices.
Reduce costs	Because of the OptiView™ Series III Integrated Network Analyzer' ease of use, the credit union will save $750,000 over five years by improving network performance and avoiding having to hire two additional full-time IT staff.
Improve customer service	Due to improved network performance and drastic reduction of application or network slowdowns, credit union staff can provide help and services to customers more quickly.

The Challenge: Improve Network Performance and Customer Service

A large credit union, founded more than 60 years ago, has 17 branch offices spread throughout the county in which it is located, and will be expanding to 25 branch offices in the coming years. The credit union's branch offices were connected to the bank headquarters via a point-to-point network, which was upgraded to an MPLS network in order to improve performance. But even after the new network was installed, network performance at the branches was slow. The credit union was looking for a solution to the problem that would accomplish the following:

- **Improve network and application performance.** Previously, the bank used a variety of terminal-based legacy applications which did not require a great deal of bandwidth. T1 lines provided adequate bandwidth for them. But the credit union has moved to client-server and Web-based applications, which require significantly more bandwidth and better network performance. The credit union was looking for a solution that would help it track down any causes of network congestion or slowdowns, to help improve application performance.
- **Improve customer service.** When customers needed services from tellers at branch offices, such as making a deposit or asking for account information, they sometimes experienced delays. The delays were as long as ten minutes, because of network problems. The credit union had no way of knowing the cause of the network congestion. It was looking for a tool that would help it diagnose network problems, so that it could improve customer service.
- **Improve productivity.** Sluggish performance at the branch offices meant that employees had to wait for applications to complete tasks before they could do their work, lowering their productivity. The credit union wanted to improve the productivity of its employees at its branch offices.
- **Reduce IT costs.** The credit union planned to expand the number of its branch offices, which would require expanding its network. It wanted to be able to manage a larger network without having to add to staff.
- **Reduce hardware and maintenance costs.** To make up for the network's slow performance, the credit union faced purchasing additional network equipment. The credit union was looking for a way to improve network performance without having to purchase and maintain additional networking hardware.

The Credit Union Solves Multiple Issues with the OptiView™ Series III Integrated Network Analyzer

In its search for a solution, the credit union first tested the tools offered by their infrastructure vendor, whose hardware is used in the credit union's local area network (LAN) and wide area network (WAN). The tools, bundled with the hardware, were difficult to implement, manage, and maintain, according to the credit union's Vice President of Network and Telecommunications Services.

"We gave the bundled solution a try," he says, "but we quickly gave up on it. It's very complicated and difficult to use. There's no simple way to create reports that you can use to analyze and troubleshoot your network."

The vice president was familiar with electrical test tools and digital multimeters from Fluke Corporation, and had been impressed with their quality, reliability, and ease of use. When he came across the OptiView™ Series III Integrated Network Analyzer from Fluke Networks, a spin-off from Fluke Corporation, he decided to test it.

"I immediately saw that Fluke Networks took the same approach to the OptiView™ Series III Integrated Network Analyzer that Fluke took with the electronic test tools products," he remembers. "It's rugged and reliable, but more important is how simple it is to use. It's ideal for a customer like me who doesn't have the staff or the time to spend with complicated configurations. You plug it in, turn it on, and it's ready; you don't have the overhead of configuring and managing it."

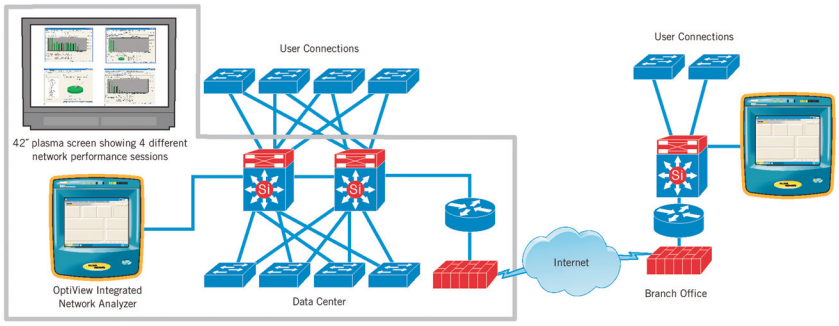
The OptiView™ Series III Integrated Network Analyzer offers complete network vision in seconds, displays all seven layers of the network, and combines protocol analysis, active discovery, SNMP device analysis, and RMON2 traffic analysis. It shows key enterprise data from multiple advanced network tests in an information-rich, easy-to-understand front page, and generates HTML reports. Remote analysis allows up to seven users to access a single unit simultaneously.

The credit union uses the OptiView™ Series III Integrated Network Analyzer as a portable tool to monitor applications, as well as centrally in its data center to monitor its LAN and WAN by directly connecting it to a span port in their core switch to monitor traffic to and from their router. Having two units—one for portable troubleshooting, and another for always-on data center monitoring—helps ensure that the network is always working properly. The OptiView™ Series III Integrated Network Analyzer in the data center is on at all times, and four different sessions are displayed on a 42-inch plasma screen, so that network performance is constantly tracked and visible.

"The tool is able to cross network boundaries, uncover any network problems, and analyze and give me a real-time view of my network," the vice president says. "It lets me diagnose and fix problems at remote sites from a central location. We use it to monitor our LAN, our WAN circuits, our servers, and our Internet traffic."

> "The OptiView™ Series III Integrated Network Analyzer is an ideal, centralized solution for monitoring and analyzing our network from the data center. We connect it directly to the span port of a switch monitoring all traffic to and from our core router, and it constantly tracks network performance. When our central management console identifies a problem, we use a second OptiView Integrated Network Analyzer for remote trouble-shooting."
>
> The credit union's Vice President of Network and Telecommunications Services

An Inside Look at the OptiView™ Series III Integrated Network Analyzer

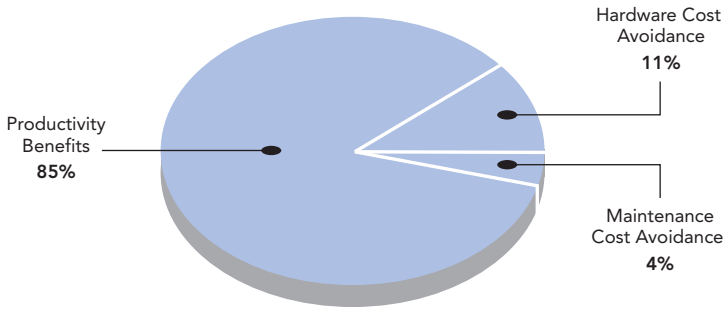


The credit union uses Fluke Networks' OptiView Integrated Network Analyzer to monitor network performance from the data center. Four different performance sessions are monitored and displayed on a large plasma screen, providing detailed visibility of critical performance metrics at a glance. When problems are detected, a second Integrated Network Analyzer is used at remote locations to pinpoint and quickly resolve the issue.

The Bottom Line for the Credit Union

A detailed analysis of the solution shows that the credit union will gain a projected, cumulative five-year net benefit of $800,594 from the project, driven by avoiding investing in new hardware, reduced maintenance costs, and improved productivity. The project has a payback period of three months. Troubleshooting and maintenance costs and time have been reduced, and branch offices have significantly improved network and application performance. Ultimately, the bank will gain more loyal customers because a faster network allows branch offices to provide improved and faster services.

- The credit union's bottom line for the project: A projected, cumulative five-year net benefit of $800,594, driven by avoiding investing in new hardware, reduced maintenance costs, and improved productivity. The project has a payback period of three months. Troubleshooting and maintenance costs and time have been reduced, and branch offices have gained better network and application performance. Ultimately, the bank is gaining more loyal customers because a faster network allows branch offices to provide improved services.

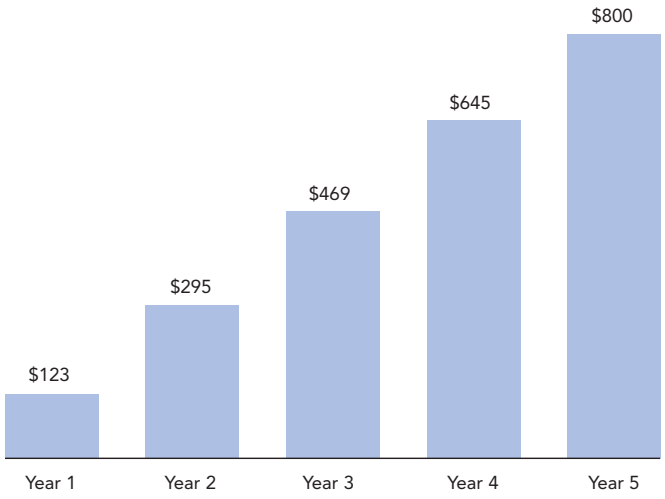


Cumulative 5 Year Net Benefit = $800,594

With the OptiView™ Series III Integrated Network Analyzer, the credit union can now easily track down network problems and application slowdowns. Previously, there was no way to find out whether problems were being caused by issues with a database, a server, an application, a desktop PC, or the network itself. With the OptiView™ Series III Integrated Network Analyzer, the credit union can now pinpoint problems and uncover network congestion.

The greatest direct financial benefit will come from IT staff productivity increases. Because of the tool's ease of use, the credit union will save $750,000 over five years by avoiding having to hire two additional full-time IT staff, which it would have had to have done if it used a competing product.

The OptiView™ Series III Integrated Network Analyzer has also helped the credit union save significant amounts of money by not investing in unneeded network hardware. Without knowing the causes of network congestion, the credit union would have had to invest in additional network equipment in order to overcompensate for network slowdowns. By pinpointing network problems, the credit union was able to fix them, and avoid buying the additional hardware. This will lead to a projected, cumulative savings of $100,000 over five years.



Cumulative 5 Year Net Benefit ($000)

In addition, the credit union will save in maintenance costs. Because it will not purchase additional switches and routing equipment, it will not have to maintain and patch that hardware. This will lead to a cumulative, projected five-year benefit of $36,000.

The credit union will gain other productivity benefits. There are no longer application slowdowns in the branch offices, so staff there will be able to work without waiting for applications or data to load. This will also improve customer service, leading to more loyal customers.

The credit union has been so pleased with the results delivered by its two OptiView™ Series III Integrated Network Analyzers that it plans on purchasing a third one, to help ensure Quality of Service (QoS) for its Voice over Internet Protocol (VoIP) telephony system.

The following chart provides a detailed, five-year analysis.

5 YEAR ANALYSIS

Project Summary							
ROI	937%						
Payback Period (in months)	3						
Cumulative Net Value	$800,594						
Project Costs	**Start Up**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**TOTAL**
Initial Investment	$45,000					$20,000	$20,000
Annual Maintenance		$3,401	$3,401	$3,401	$3,401	$6,802	$20,406
TOTAL PROJECT COSTS	$45,000	$3,401	$3,401	$3,401	$3,401	$26,802	$85,406
Benefits	**Start Up**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**TOTAL**
Hardware Cost Avoidance		$20,000	$20,000	$20,000	$20,000	$20,000	$100,000
Maintenance Cost Avoidance		$2,400	$4,800	$7,200	$9,600	$12,000	$36,000
Productivity Benefits		$150,000	$150,000	$150,000	$150,000	$150,000	$750,000
TOTAL BENEFITS	$0	$172,400	$174,800	$177,200	$179,600	$182,000	$886,000
Financial Analysis		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	
Net Value	($45,000)	$168,999	$171,399	$173,799	$176,199	$155,198	
Cumulative Net Value	($45,000)	$123,999	$295,398	$469,197	$645,396	$800,594	
Net Present Value	$614,205						
Payback Period (in months)	3						
ROI	937%						
Internal Rate of Return	377%						

Return on Investment (ROI) is the percentage return expected over a specified period of time. ROI is the total benefit divided by the total costs. This ROI metric is good for assessing the multiplier provided by the benefits relative to the total investment and costs

Net Present Value (NPV) represents the cumulative present value of the expected return of a project over a specified period of time minus the initial costs of the project. This dollar figure provides visibility on the actual value of a project, taking into consideration the time value of money—the ongoing benefit of a project in today's dollars. NPV tells you the magnitude of the project and if the project generates a profit.

Payback Period (or breakeven) is the timeframe it takes for the project to yield a positive cumulative cash flow. Payback period is a key measurement of risk but does not take into account cash flows after the payback period.

ROI, NPV and **Payback** should be used in conjunction to understand the rate, size and timing of the return.

Net Value (or Net Benefit) is the benefit delivered to the organization for the investment made in the project. Net Value is calculated by taking the total benefit minus the project costs.

Internal Rate of Return (IRR) is the implied rate of return of an investment assuming complete reinvestment of cash flows. It is the percentage rate by which you have to discount the benefits until the point that they equal all the costs. IRR is calculated as the discount rate necessary to drive the NPV to zero.

About Fluke Networks

Fluke Networks provides innovative solutions for the testing, monitoring and analysis of enterprise and telecommunications networks and the installation and certification of the fiber and copper foundation of those networks. Its comprehensive line of Network SuperVision Solutions™ provide network installers, owners, and maintainers with superior vision, combining speed, accuracy and ease of use to optimize network performance. Headquartered in Everett, Washington, Fluke Networks has over 500 employees worldwide and distributes its products in more than 50 countries and are used by 96 of the Fortune 100 companies. For more information, visit www.flukenetworks.com.

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