

“Sitting On A Whale, Fishing For Minnows” - The Tahitian Philosophy to Network Management

PC Fix, Inc sought one solution to fully manage customer networks and deliver superior troubleshooting capabilities. Observer delivered a comprehensive network management solution.

In summary...

About PC Fix, Inc.

Since 1995, PC Fix, Inc has been providing network troubleshooting and network management for companies worldwide. The company prides itself in being able to deliver the luxury and speed of large network resources and full functioning IT staff to small-to-medium enterprises.

Challenge

As PC Fix's business relied upon being able to effectively manage and troubleshoot corporate networks, they needed a comprehensive solution that instantly showed where network improvements could be made and offered a distributed, fully scalable architecture.

Solution

By using Network Instruments' exclusive Distributed Network Analysis (NI-DNA™) architecture found in the Observer product family, PC Fix was able to transform their company into a distributed service provider. Through Observer they can review, monitor and maintain any customer network from the PC Fix Mission Control room, ultimately resolving customer challenges quicker and reducing the need for costly travel expenses.

“Observer is the best kept secret on the market. We've tested and reviewed every network troubleshooting product there is and only Observer offers a completely holistic approach at network management.”

Chris Berry, President, PC Fix, Inc.

The control room at PC Fix, Inc has been nicknamed “Mission Control.” From here, the team monitors and maintains customer networks around the country. Since 1995, PC Fix has provided complete outsourced IT solutions for small-to-medium enterprises. From an initial consultation to full system deployment, PC Fix offers large network staff benefits to companies that can not afford an in-house IT staff. “First we assess site needs and build the network, then our success relies upon being able to monitor the entire network from a different location,” explains Chris Berry, President of PC Fix. To effectively monitor different networks an all-inclusive network management solution was needed.

Not only do the customers of PC Fix have networks of every size and shape, the network lab at PC Fix continually experiments to test new products and configurations.

“It's an experimental system using varying topologies and applications,” says John Ahearn IV, Vice President of Network Engineering. “Our customers don't always have state of the art equipment so it is our responsibility to provide solutions for every type of network. And we love to tinker with new ideas.”

The PC Fix network lab includes a high-speed, feature-rich gigabit network, high-end Cisco switches, mixed fiber and copper lines and about a dozen workstations. The network also runs a T1 line and the Cisco PIX Firewall for security.

A Scientific Approach

In choosing a network troubleshooting solution, PC Fix did an extensive and thorough market evaluation using purely scientific methods. The team spent over a month purchasing and testing different products including Sniffer® by Network Associates®, WildPackets, Tivoli®, HP OpenView, Observer® by Network Instruments® and others. “We wanted to eliminate all bias and test different products based on certain determining factors and criteria. We installed every product we could find and studied them together for over a month.”

PC Fix concluded that Observer is substantially superior. “Observer is the most feature-rich product on the market. The price is on target. And every subsequent release gets better while a lot of the other products are stagnating,” said Berry. “Network Instruments is devoted to developing products that will continue to perform for tomorrow's network configurations.”

Today PC Fix uses Observer Suite, remote Probes and Link Analyst to manage customer networks all over the world.

Using NI-DNA™

For PC Fix, the single most important benefit of the Observer product line is the ability to troubleshoot remote networks. Network Instruments designs each product with a unique Distributed Network Analysis (NI-DNA) architecture that provides local and remote scalability. Observer and Network Instruments Probes work together to allow network monitoring and maintenance for any part of a network. Probes help the network administrator perform integrated monitoring and analysis for any network site, regardless of the location.

“We manage networks all over the country which require a lot of travel time and expense,” says Berry. “The NI-DNA architecture that Network Instruments brings allows us to control multiple networks from a single location. Our customers appreciate that we can resolve challenges quickly and save key dollars in unnecessary travel expenses.”

Protocol Soup

Part of the challenge for PC Fix is proving to customers there is more efficiency to be gained out of their current network. Many network devices continuously blast the network with unnecessary traffic that causes bottlenecks, packet storms and other inefficiencies. PC Fix calls this “Protocol Soup.” PC Fix needed a device that was able to instantly review a network, perform baseline reports and show network inefficiencies.

“In about 30 seconds, we can demonstrate with Observer to customers that they are suffering from Protocol Soup,” says Ahearn. “Protocols like IPX, SPX, TCIP, OPS, AppleTalk and DEC dump unnecessary traffic and result in wasted bandwidth and junk traffic. It's an eye-opening feature for a lot of companies.”



Testing for Future Problems

Observer's capacity planning, traffic generators, trending and reporting functions allow PC Fix to push the envelope with current network configurations to spot potential problems. By testing the network to understand its thresholds, PC Fix can better serve its customers by reviewing problems before they surface.

"John's favorite Observer feature is the traffic generator," says Berry. "He loves to red-line networks to test capacities and look for fault diagnosis."

The Observer Traffic Generator allows PC Fix to produce a specified number of packets to load the network and study how the network performs under varying stress levels.

Reporting for Upper Management

As PC Fix does continued network monitoring, periodic evaluations may require customers to increase network capacity. This usually means the purchasing of additional software or hardware. But many organizations have limited IT budgets; making a case to invest in IT infrastructure can be difficult. In these situations, PC Fix uses Observer's many reporting functions, such as Web reporting, network trending and comparison analysis reports to produce supporting documentation to rationalize equipment costs.

"They just don't believe it until they see it," said Berry. "Through Observer's data collection and in-depth reporting functions, we're able to easily provide comprehensive justification for needed network devices."

The Holistic Approach

For the past two years, PC Fix has used Observer to allow for greater network control. The company believes Observer is the next-generation of network troubleshooting tools because of its myriad of features and its wide view of the network.

"It's not just a sniffing tool, it's a monitoring and a management solution together," says Berry. "It really is the product that separates the old world from the new world. What's that Tahitian saying 'Sitting on whale, fishing for minnows'? Many network-troubleshooting devices have too narrow of a view. Observer truly offers a holistic approach to network control."

About Traffic Generator

The Observer Traffic Generator simulates peak load conditions, allowing the administrator to test the stress levels for a network segment to prevent problems. Administrators can test network levels by choosing a number of configurable packets. Users can specify packet type, packet size, packets/sec, time period to generate, destination, source and number of packets to send.

About Advanced Single Probes and Advanced Multi-Probes

Through the deployment of Network Instruments' Probes network administrators can remotely monitor the entire network from one location. Network administrators can view statistics in real-time, produce long-term trending and capture packets for in-depth analysis on any remote network. Network Instruments also offers hardware-based Gigabit probes and hardware-based WAN probes that passively capture network traffic – offering no disruption to the network.

Advanced Single Probes monitor different locations on the network and offer single session and single interface support. Advanced Multi-Probes support multi-interface and multi-session monitoring. With multi-interface, one Observer console can simultaneously monitor several probes (in various locations) that use multiple NICs to view different topologies. Multi-session permits multiple administrators in different locations to monitor the same probe at the same time – allowing for problem-solving collaboration.

About Link Analyst™

Network Instruments' Link Analyst is a powerful intuitive solution for monitoring critical networks and the routes that connect them. Link Analyst provides graphical mapping of network devices, uptime monitoring of device response times, web reporting and a trigger-based active notification system to warn of network problems as they happen. Link Analyst provides both local and remote monitoring on any connected network.

About NI-DNA™

Since 1995, Network Instruments has provided fully distributed, scalable network analysis and troubleshooting solutions. The Network Instruments Distributed Network Analysis (NI-DNA) architecture allows IT organizations to monitor all aspects of the network through the deployment of local and remote probes. From one central location, network administrators can monitor and manage all sides of the network.

About Network Trending

Observer offers 'Network Trending' to help administrators understand what is normal for their network. Network Trending provides the baselining necessary to collect, store, view and analyze network traffic statistics over long periods of time. Through Network Trending, administrators can continually monitor network health and recognize signs and symptoms of network inefficiencies.

About Network Instruments, LLC

Network Instruments is the industry leading developer of superior, user-friendly, and affordable network management, analysis and troubleshooting solutions. The award-winning Observer family of products combines a comprehensive management and analysis console with high-performance Probes to provide integrated monitoring and management for the entire network (Ethernet, Gigabit, Wireless, and WAN). All Network Instruments products are designed utilizing Distributed Network Analysis (NI-DNA™) architecture. With NI-DNA, the Observer solution set simplifies network troubleshooting and management, optimizes network and application performance and scales to meet the needs of any organization. Founded in 1994, Network Instruments is headquartered in Minneapolis, Minnesota with offices in London, Paris, throughout the USA and distributors in 48 countries. More information about the company, products, innovation, technology, NI-DNA, becoming a partner and NI University can be found at www.networkinstruments.com.

About PC Fix, Inc.

PC Fix, Inc. provides complete outsourced IT solutions for small-to medium size corporations. PC Fix offers large network staff benefits and support to companies that do not keep an IT staff in-house. PC Fix, Inc employs a world-class staff of technologically advanced people. Lead by Chris Berry, the company's president, CEO and founder. PC Fix, Inc was founded in 1999, and has been providing companies with quality technical troubleshooting ever since. PC Fix, Inc has partnered and worked with leaders in the industry and is a certified partner, reseller and trainer of Network Instruments products and services. For more information about PC Fix, Inc. visit www.networktroubleshooters.com.



Corporate Headquarters
Network Instruments, LLC
8800 West Highway Seven
Fourth Floor
Minneapolis, MN 55426

toll-free: (800) 526-7919
phone: (952) 932-9899
fax: (952) 932-9545

European Office
Network Instruments, Ltd.
Brewery House
Black Eagle Close
Westerham TN 16 1RG
UK

phone: +44 (0) 1959-569880
fax: +44 (0) 1959-569881

info@networkinstruments.com
www.networkinstruments.com