

## Fluke Networks' LinkRunner™ AT Network Auto-Tester helps ACS, A Xerox Company, Speed Network Testing Services

### At a Glance

**Customer:**

ACS (Affiliated Computer Services), A Xerox Company

**Industry:**

IT Services

**Location:**

Dallas, Texas

**Challenge:**

As an IT services organization, ACS needs to ensure the installation and operation of critical customer networks worldwide. That requires tools to not only deliver the needed Ethernet connectivity testing features, but to improve the efficiency and responsiveness of their network engineers. Being able to quickly verify connections or identify and solve network issues is key to the company saving customers time and money.

**Results:**

ACS found, that across the board, the LinkRunner AT is the first device they've tested that's built with the network professional in mind, allowing them to quickly conduct either a standard set of connectivity tests or to customize their testing procedures to troubleshoot and maintain network connectivity. The tester saves their organization time and money, helps speed service, makes their job easier and increases customer satisfaction.

**Products:**

LinkRunner™ AT Network Auto-Tester

**Customer**

ACS (Affiliated Computer Services, Inc.), A Xerox Company, provides business process outsourcing and IT solutions to world-class commercial and government clients. ACS works with organizations across the globe to design, install and maintain wired and wireless networks, ranging from a few thousand connections to tens of thousands of nodes throughout the world.

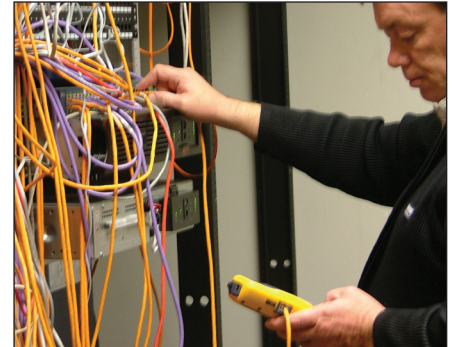
**Challenges**

As an IT services organization, ACS needs to efficiently ensure the installation and operation of mission-critical customer networks. The company's network engineers need to be able to verify network connections or identify and solve problems...fast.

"My job is all about speed and accuracy—how fast can I test or diagnose, verify and move on to the next issue. Time and again, it seems like things are slowing me down as I work," said Charles Morris, a senior engineer with ACS. "Whether it's customized testing routines, authentication issues, or checking on the work of junior engineers, there's always a steady stream of complications or challenging issues."

Because they work across a broad range of customer environments, ACS team members need to constantly adapt. One minute they might be checking connection integrity, while the next could be IPv6 readiness testing, PoE load verification, cable wiremapping or more. ACS engineers often resort to proprietary code on a laptop to test all these different functions and systems, requiring multiple utilities and applications, and high levels of expertise. Complicating matters is the fact that every customer is unique, not just in terms of network design and problems, but also in verification requirements.

"For example, every customer has its own particular testing regimen, generally 'if you can connect to this site and get an IP address and DNS resolution, then you're clear to hand off the trouble ticket... and until that's done you have to continue to verify it's not a network issue,'" Morris said. "And historically we've done this manually, getting the IP address and taking a screenshot, resolving the DNS and taking a screenshot, etc., all of which takes time."



*"I've been an engineer for more than 20 years and this device just gets me, it understands what my workflow truly is and what type of information I need to do my job. The LinkRunner AT is like having your own engineer in the palm of your hand. I love this device."*

– Charles Morris  
Senior Consultant  
at ACS, A Xerox Company

Furthermore, diagnosing more advanced issues can really cause headaches for the engineers. “I usually have to take over in person for junior engineers to get the diagnostic information I need when it comes to anything beyond basic testing,” Morris noted. “Sometimes I’ve had intermittent issues, like with PoE, that can take weeks to run to ground.”

Network authentication can be another problem for engineers and their tools. According to Morris, most testing devices “hit a wall” as soon as they reach a device requiring 802.1x authentication. “If I can’t get past that, all I’m testing is a single link and not the rest of the network connection.”

In short, the ACS team needs a testing device that’s built around the way they actually work.

## Solution

ACS tested the new LinkRunner AT Network Auto-Tester from Fluke Networks, and found a device built with the engineer in mind. From blazing fast connection integrity verification, to advanced IPv6 readiness testing, PoE load measurement, 802.1x authentication and more, the LinkRunner AT Network Auto-Tester gets the job done.

“I’ve been an engineer for more than 20 years and this device just gets me, it understands what my workflow truly is and what type of information I need to do my job,” Morris said. “The LinkRunner AT is like having your own engineer in the palm of your hand. I love this device.”

## Results

ACS found that the LinkRunner AT certainly brings blistering speed to connection testing. “I was amazed by the fact that this device was finished testing before I could even explain to one of my junior engineers what I was actually doing,” said Morris. “Normally I have to initiate separate sessions and run individual tests, but with the LinkRunner AT it was just the push of a button, with the AutoTest feature, and it was done. That probably saved 3-4 minutes for a basic test, and 15-20 minutes for a complete verification suite. I was done testing 40 connections in 20 minutes, and that previously could have taken half a day.”

Security through 802.1x is another bright spot for ACS with the LinkRunner AT. While other test devices hit a wall, Fluke Networks, with its 802.1x authentication, broke through to allow engineers to test a complete network connection. “It’s maddening when you can’t clearly view a protected wireless network because of authentication, and Fluke Networks really seems to have done its homework on what we need,” said Morris.

Advanced IPv6 testing and PoE verification are also critical as ACS’ customers get ready for new systems and the latest devices. “The intermittent PoE customer issue I mentioned before was something I was wrestling with for close to a month,” Morris commented. “With the LinkRunner AT, I was able to trace it to a bad switch within a couple of hours. Frankly, I wish I’d had that tool with me from the start.”

The LinkRunner AT Network Auto-Tester’s automated testing function allows an engineer to tailor the testing routine to meet specific requirements, including DHCP, DNS and website connectivity, allowing ACS to map to a customer’s particular testing and reporting process. “That’s huge for us, and I love this device for it. Again, it’s almost like Fluke Networks read our minds when they were designing this tool.”

From an organizational efficiency standpoint, perhaps the most important advance for ACS is the ability to use the LinkRunner AT Network Auto-Tester's automated functions and ancillary tests to improve how much its junior engineers can accomplish. Morris recalls the time he sent one of his team to test a critical, but troublesome, new connection at a hospital. "I need a device that makes my team self-sufficient. The AutoTest provides consistent results I can teach them to interpret. If they can't figure it out, they can save the information, which is comprehensive enough that I can show them what's wrong without a return visit. It's a great teaching tool," Morris noted.

In another instance, Morris gave the device to a junior team member to see how much he could accomplish with it. "Unlike other devices, the LinkRunner AT makes it seamless to run a full suite of tests so that you can see all of the information together. Because of that, this junior engineer was able to work through an employee's problems with a particular website not loading and identify a disabled proxy setting on the network. That completely solved the customer's issue, saved me time and saved ACS money."

According to Morris, the LinkRunner AT had a real impact on how efficiently ACS operates, and how well he and his engineers can do their jobs. Whether it's speeding his own tests or allowing him to hand it off to an intern without having to worry that the tests were done properly, Fluke Networks' LinkRunner AT delivers. "I've been doing this for more than 20 years and have used a lot of devices in that time, and this is the first time I've been truly impressed. I expect my tools to work. But when one not only works, but seems like it was custom built with me and my workflow in mind, that really gets my attention."

**Fluke Networks**  
P.O. Box 777, Everett, WA USA 98206-0777

**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).

©2012 Fluke Corporation.  
Printed in U.S.A. 1/2012 4147693A