CASE STUDY

Zscaler™ Advances Agilent's Transition to the Cloud and SD-WAN

Agilent is a leader in life sciences, diagnostics, and applied chemistry. The company provides laboratories around the world with instruments, services, consumables, applications, and expertise, enabling Agilent customers to gain the insights they seek in food sciences, pharmaceuticals, chemistry, and other essential markets.

Agilent Technologies

Santa Clara, CA
www.agilent.com

Industry: Healthcare equipment and services

User Count: 12,500

Locations: 120 across more than 30 countries

Zscaler Product: Zscaler Internet Access, Bandwidth Control, and Cloud Firewall

Agilent @ A Glance

Challenge

Like many forward-thinking organizations with widely distributed operations, Agilent was looking to take advantage of cloud applications and services to enhance flexibility and user productivity. As the global healthcare equipment and services leader prepared for this step, it was also experiencing massive network growth.

Initially, 90 of Agilent's 120 locations relied on Multiprotocol Label Switching (MPLS) for wide-area network (WAN) connectivity — a single global provider interconnected its remote offices to one another. Traffic from remote offices was fed to data centers in one of six regional Internet gateways where it was inspected by a full suite of security tools.

Agilent found that over 60 percent of its traffic was destined for the Internet, but due to the problems with MPLS — performance issues, cumbersome management, and high costs — Agilent was forced to bypass the standard methods and develop custom solutions for its larger offices to keep up with the ever-increasing demand for bandwidth. This practice was expensive, and it gave Agilent's network administration team little or no visibility into Internet traffic. The company needed a more cost-effective way to secure Internet-bound traffic consistently across all its global locations.

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> Jon Loehndorf, Network Operations/Security Design, Agilent

Agilent Adopts Zscaler for Branch Office Network Security

Agilent initially turned to Zscaler in early 2015 to resolve bandwidth and security issues at its regional offices. Zscaler was the logical choice for Agilent because it includes a central management framework that supports a distributed environment, allowing for Internet traffic to undergo URL filtering and scanning for malicious content. And it enables bandwidth controls to be put in place to prioritize mission-critical traffic over lower-priority web browsing.

Jon Loehndorf, Agilent Network Operations/Security Design, explains, "We looked to Zscaler to handle URL filtering requirements and apply bandwidth controls — without the need to have a bandwidth management appliance inline at each office."

With Zscaler, Agilent could break out its regional Internet gateways — each with a complete security portfolio — without incurring the enormous cost or management complexity of deploying appliances in all six locations. "We'd never be able to do that with on-premises security solutions. In addition, Zscaler gives us huge flexibility in optimizing how and where Internet-destined traffic is being routed," points out Loehndorf.

For Agilent, another key Zscaler advantage is its graphical administrative interface and reporting tool. It provides detailed visibility into network activity and threats from any device, from anywhere, and at any time. "Our management is thrilled with Zscaler's monthly threat reports, which present the threats that have attempted to infiltrate our network," says Loehndorf. "The graphical reports break information down in a way that makes it easy to share with management. They help us show how successful we are in fending off threats and improving the company's overall security posture."

Cloud Adoption Leads to Branch Transformation

Agilent's adoption of Zscaler had proven to be a success in its regional offices by reducing costs, improving visibility, control, and performance, and increasing security without increasing complexity. Later that same year, Zscaler would prove its value once again, as it enabled Agilent to securely transition to SD-WAN.

Agilent's long-term goal had been to become transport agnostic and increase reliability, performance, and redundancy for the branch. It sought to move eventually into an SD-WAN architecture that would allow it to break away from the single WAN provider lock-in and add transports that were higher-performing or lowered the overall cost using an inexpensive Internet transport to carry Internet-destined as well as inter-company traffic between offices. It found a perfect solution with the Viptela SD-WAN combined with the Zscaler Cloud Security Platform.

Benefits

- Security for Internet-connected regional and branch offices
- Seamless integration with Viptela SD-WAN network
- Rapid response to changing business requirements
- Greater network flexibility and security
- 80 percent improvement in network provisioning time
- Faster onboarding of acquired companies and partners

An Integrated and Secure SD-WAN Solution: Viptela and Zscaler

Pascal Heger, Agilent's Global Network Architect, and his team researched several SD-WAN vendors. "We found Viptela to be the most mature in terms of dynamic routing," notes Heger "It also enabled Agilent to easily point Internet-bound traffic to Zscaler for inspection. Part of our selection criteria was to support IPSec or GRE tunneling to get to Zscaler. We started down the path with Zscaler and discovered that it fit perfectly with our new SD-WAN deployments. It's a good marriage between two best-in-class vendors."

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> Pascal Heger, Global Network Architect, Agilent

The cloud-based Zscaler security solution now safeguards local Internet breakouts and Viptela provides the framework that allows Agilent to securely transport its internal WAN traffic between sites. All Internet browsing is done through Zscaler, which inspects every byte, detecting stealthy, evasive threats before they can penetrate the network and compromise users and systems.

The implementation of Viptela and Zscaler has been extremely successful and is having a positive impact on performance. Viptela routers at Agilent continuously monitor and measure how each circuit is doing compared to other circuits on all sites. "The Internet transport is performing as well — or better — than MPLS transport. For the past year, all mission-critical applications and traffic have been engineered to prefer Internet transport — and we haven't had a single complaint from users."

Cloud-Delivered Efficiency, Flexibility, and Performance

Building on the original Zscaler implementation, which focused on bandwidth control and URL filtering, Agilent expanded its deployment to include advanced Cloud Firewall with Nanolog™ Streaming Service (NSS), which provides global, consolidated, real-time logs.

With Zscaler and Viptela SD-WAN, the Agilent IT team has found that it is now able to respond more rapidly to changing business requirements. Agilent enjoys a level of flexibility it hasn't experienced before. Heger estimates that there has been an 80 percent improvement in turnaround time when new capabilities are added, along with a notable increase in application reliability and performance. When it comes to mergers and acquisitions and business partner enablement, Agilent can get these organizations up to speed more quickly. With MPLS, it could take up to six months for provisioning, but today, the IT team simply ships a router, and the partner organization plugs it into its Internet connection.

"Viptela and Zscaler demonstrated their leadership and ability to deliver the enterprise SD-WAN and cloud-based security we were after," remarks Heger. "This has fundamentally transformed our cost structure and enabled us to confidently realize the benefits of operational efficiency and scalability around the globe."

Next on the agenda for Heger, Loehndorf, and their teams is exploring ways to use Viptela and Zscaler to enable secure communications with partners and businesses within Agilent using network segmentation.

About Zscaler

Zscaler enables organizations to securely transform from the old world of IT, which focused on securing the internal corporate network, to the world of cloud and mobility, where the Internet is the new corporate network. Zscaler delivers the inbound and outbound gateway stacks as a service, providing secure access to the Internet and applications in the data center or cloud. Each day, the Zscaler cloud processes more than 30 billion requests, blocking 125 million threats for 5,000 organizations in 185 countries, and the groundbreaking research of the ThreatLabZ team safeguards Zscaler customers from new and evolving threats. Visit **zscaler.com**.

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