Citrix Systems, Inc.

Reducing TCO for Strong Authentication by 60 Percent with Symantec Solutions

Citrix Systems, Inc., a leader in cloud and virtualization solutions, wanted to move two-factor authentication into the cloud to reduce costs and improve flexibility and reliability. It also needed to monitor instances of source code on its network to protect intellectual property, and ensure that logs are monitored 24×7 to detect any malicious activity. Citrix turned to strong authentication and data loss prevention solutions from Symantec, supplemented by managed security services. Results include a 60 percent reduction in total cost of owner.ship for strong authentication over three years, eightfold less administration time required, the ability to onboard new locations without waiting weeks to procure hardware, a 15 percent increase in adoption of strong authentication, enhanced compliance with PCI and Sarbanes-Oxley, and up to two full-time employee (FTE) equivalents avoided by outsourcing security monitoring.

> " **Moving to Symantec VIP will reduce our TCO for strong authentication by at least 60 percent over three years.** "

Laz Corrales
Senior Manager, Information Security and Business Continuity
Citrix Systems, Inc.

ORGANIZATION PROFILE

Site: citrix.com

Industry: Technology

Headquarters: Fort Lauderdale, Florida

Employees: 8,200

KEY CHALLENGES

- Provide easy to use yet effective and secure authentication
- Improve reliability, flexibility, and support around two-factor authentication
- Monitor movement of source code to protect intellectual property
- Prioritize and mitigate threats to keep network secure

SOLUTION

- Symantec™ Validation and ID Protection Service (VIP)
- Symantec™ Data Loss Prevention
- Symantec™ Secure Site Pro with EV
- Symantec Business Critical Services
- Symantec VIP Platinum Support
- Symantec Managed Security Services

BUSINESS BENEFITS

- 60% reduction in total cost of ownership over three years
- Less than 48 hours to deploy globally
- Eightfold less administration time required
- Able to onboard new locations without waiting weeks to procure hardware
- 15% increase in adoption of strong authentication, with 99% of users opting for soft tokens

A pioneer in cloud, mobility, and virtualization

One of the great technology leaders of the past two decades, Citrix Systems, Inc. (Citrix) revolutionized enterprise application delivery and continues to innovate with cloud solutions that enable mobile work and lifestyles. Its XenServer cloud platform and XenDesktop desktop virtualization platform are widely used, and its enterprise mobility, cloud networking, and collaboration solutions address some of today's most pressing business and IT concerns.

Citrix is a very visible and respected company with a prominent reputation to uphold. As such, it takes information security very seriously. "I don't even want to think about the impact that a major security breach would have on our company," says Laz Corrales, senior manager, information security and business continuity. "In IT, we do everything we can to make sure that doesn't happen. But our goal is to impact business processes as little as possible and give employees flexibility in how they work. After all, that's what Citrix is all about."

Protecting a global VPN with strong authentication

To protect its network, reputation, and intellectual property, Citrix employs multiple layers of security, including two-factor or "strong" authentication for access to its global virtual private network (VPN). Two-factor authentication combines something a user knows (for example, a username and password) with something the user has (a credential such as a card, token, or mobile phone). Strong authentication plays a significant role in protecting enterprise infrastructure beyond basic password-based user identity protection.

"Given the nature of our business, Citrix was an early adopter of two-factor authentication back in the day," says Corrales. "But the solution we were using required a lot of on-site infrastructure support. We also weren't getting enough buy-in from our user population, because authentication required them to take an extra step of inserting a key-fob USB token. It was painful to line up support with the vendor—and then we had an outage."

Moving authentication to the cloud

Lost productivity during the service interruption prompted Corrales to look for a new solution. "We wanted a cloud-based solution that would allow us to get up and running quickly and scale without buying and deploying new hardware," he says. "We're very familiar with the business continuity benefits of the cloud. And we needed a solution that would support Citrix XenDesktop out of the box, since we use our own technology as much as possible."

Citrix selected Symantec™ Validation and ID Protection Service (VIP), a cloud-based service that provides two-factor, strong authentication without requiring dedicated "hard" tokens. Symantec VIP Access for Mobile transforms popular smartphones, such as the iPhone, into a free one-time password credential; users can also authenticate using their PC as a credential. Symantec has verified the interoperability of Symantec VIP with Citrix XenDesktop and Citrix NetScaler technologies.

"Because Symantec VIP is cloud-based, it was very quick to deploy," says Corrales. "In 48 hours, we were ready to start registering users. Everyone was enamored with the ease of installation and registration."

Following a brief pilot with IT users, VIP was made available to the general user population. Word spread quickly that using Symantec VIP was much easier than the old solution. "We've seen a 15 percent increase in adoption of strong authentication, with 99 percent of users opting for soft tokens as opposed to key fobs," says Corrales. "People were coming out of the woodwork asking how they could use VIP."

Eightfold less administration time required

Users can activate tokens themselves via the Web, minimizing help-desk involvement. "Self-service is always a big thing for Citrix, and it was one of the main reasons we selected Symantec VIP," says Corrales. "We're all about empowering the end user. Previously, our help desk was spending a great deal of time logistically ordering tokens, distributing them, and making sure they were collected when employees left the company. Sometimes we'd run out of tokens. It was not an efficient use of staff time."

IT no longer needs to deploy and maintain servers to host authentication software locally at each location. Citrix can onboard new locations and new users the same day, using a Web-based interface, rather than waiting weeks to procure and deploy hardware. "We used to spend around 40 hours of IT staff time a month managing and scaling our previous authentication solution," says Corrales. "We're down to five hours, if that—an eightfold reduction in administration time."

Support has improved as well, with Symantec VIP Platinum Support. "I noticed right away that Symantec VIP has a very strong support offering," says Corrales. "Compared to our previous vendor, it's been night and day."

Reducing TCO by 60 percent

Both capital and operating expense reductions contribute to a substantial decrease in total cost of ownership (TCO) for two-factor authentication. "Distributing physical tokens was expensive," says Corrales. "Moving to Symantec VIP will reduce our TCO for strong authentication by at least 60 percent over three years."

There's potential to reduce TCO even further by "monetizing" VIP—that is, using the Symantec VIP application programming interface (API) to integrate strong authentication into Citrix products. "I'm investigating how we might incorporate VIP into some of our data sharing or collaboration and support solutions," says Corrales. "I have two specific use cases in mind that I think would be fantastic."

Citrix plans to expand its use of VIP to authenticate access to certain financial applications. "We're a big BYOD (bring your own device) shop, and we provide users with a virtual XenDesktop they can access from their own device," says Corrales. "Symantec VIP will help support our BYOD initiative by providing robust security and a seamless user experience."

Corrales is also looking forward to using device and behavior profiling in VIP to deliver strong authentication without requiring any hardware or software credentials. Data about user behavior patterns is collected over time, and authentication attempts that are substantially out of the norm can be flagged as a risk and denied.

"Intelligent authentication is where we're headed, and it's another major reason we selected Symantec VIP," he says. "Our goal is to provide as transparent a security model as possible while still maintaining the security integrity of the organization. Why should we require users to take an extra step in cases where we can securely determine their identity based on context? We'll be giving users time back, every day."

Citrix is also considering using Symantec™ Managed PKI for SSL to reduce the cost and complexity of managing its SSL certificates. This solution will allow Citrix to keep on top of certificate management and delegate responsibilities to separate business units. The company will benefit from cost savings associated with centralized buying, yet each department can still deploy certificates as required. "We already use Symantec Secure Site Pro SSL Certificates with Extended Validation SSL on our GoToMeeting website, so the next logical step is a product to help us manage our entire certificate portfolio," says Corrales.

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Protecting intellectual property while enhancing compliance

To monitor the flow of potentially sensitive or confidential information and strengthen security, Citrix deployed Symantec™ Data Loss Prevention. By creating an inventory of sensitive data, Symantec Data Loss Prevention helps Citrix build better controls around information and prioritize security efforts. "It had native support for XenDesktop, which is critical for us," says Corrales.

Citrix used the Network Discover module of Symantec Data Loss Prevention to detect instances of source code on its network. Vector Machine Learning (VML) capabilities were integral in "fingerprinting" source code to identify where copies were, and VML increased the accuracy of the scans. The market's first and only machine learning technology, VML is designed to simplify the detection of hard-to-find intellectual property, such as product designs and source code. It eliminates the need to create keyword-based policies, which can be time consuming and challenging for global organizations with widely dispersed data.

"VML was one of the factors that made Symantec Data Loss Prevention really stand out," says Corrales. "It allowed us to identify nuances between code and dramatically reduced our rate of false positives. Our source code is our bread and butter, and Symantec Data Loss Prevention will help us protect it."

IT has been able to partner with internal audit to strengthen controls. "It's an ongoing process, but Symantec Data Loss Prevention will enhance our compliance with PCI and Sarbanes-Oxley regulations," says Corrales. "We'll be able to scan for credit card data and personally identifiable information (PII), and mitigate risk as our volume of unstructured data continues to grow."

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Optimizing business processes for information security

Citrix is also using Symantec Data Loss Prevention to monitor outbound email, helping to ensure that source code is not emailed to potentially insecure accounts. "One of the interesting things we've found is that a lot of the activity you'd expect to be malicious really isn't—it's just people trying to do their jobs using outdated business processes," says Corrales.

Symantec Data Loss Prevention is helping Citrix identify and remediate outmoded business processes with potential security implications. "We were able to demonstrate immediate value to the business," says Corrales. "There were some quick wins where all it took was educating users about a better way to do things. Symantec Data Loss Prevention will be instrumental in helping us guard against data loss that could result through honest mistakes or broken business processes."

For product support on Symantec Data Loss Prevention, Citrix contracts with Symantec Business Critical Services with Remote Product Specialist.

Expert security monitoring, 24×7

For round-the-clock, real-time monitoring of firewalls and other network devices, Citrix contracts with Symantec Security Monitoring Services, an offering from Symantec Managed Security Services. Experts at a Symantec Security Operations Center (SOC) monitor log files, correlate security data, and immediately alert Corrales and his team to any issues.

"Symantec Managed Security Services helps us focus on substantive issues instead of spending our time digging through logs," says Corrales. "If there's a problem, our service manager lets us know. We can spend our time on other things. We're avoiding the need to hire up to two full-time employees (FTEs)." On-staff security expertise is also expensive, he notes, and difficult to find and retain.

With Symantec Security Monitoring Services, IT can have easier and more illuminating conversations with executive leadership and auditors. "Reporting on security events is much easier now," says

Corrales. "We can generate graphs over time periods and segregate endpoint and network events. Before, security monitoring was analogous to diving at night—we could shine the light anywhere we wanted, but that's all we'd see. Now, everything is lit up. When we tell auditors that we're using Symantec Managed Security Services, that's all we need to say; they're satisfied that we're taking a proactive approach."

Citrix now has the equivalent of a dedicated incident response team, helping it prioritize and mitigate threats. "It's very easy for monitoring and alerting to fall by the wayside, and by engaging Symantec Managed Security Services, we've made sure that it doesn't," says Corrales. "We sleep well knowing that we have a talented and effective team that is keeping tabs on our infrastructure, weeding out all the noise, and providing us with the information we really need to keep our network secure."

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A fruitful partnership

As one would expect of two technology leaders with complementary solutions, Citrix and Symantec work well together.

"I have good relationships at Symantec that help me execute," says Corrales. "My Symantec account team is fantastic. It really is a true partnership. I always feel that they have our best interests at heart. And when I say 'jump,' they jump really high and just make things happen."