

Symantec Delivering on Its Strategic Vision with Next-Generation Secure Datacenter Powered by Cisco ACI

 5-Year
ROI
441%

 5-Year Total
Business Benefits
\$145M

 Payback
Period
**11
MONTHS**

Key Performance Improvements Realized with Cisco ACI by Symantec

Reduction in Time of Application
Development Life Cycle

 **87%**

Improved Network Operation
Staff Efficiency

 **79%**

*"We don't look at deploying Cisco ACI as a network refresh
but as a way of changing how our datacenters operate."*

— **Vince Spina, VP of IT, Global Network Infrastructure and Data Center Services , Symantec**

Average Annual Business Benefits for Symantec over Five Years with Cisco ACI

Risk Mitigation and
Business Productivity

\$25.27M

IT Infrastructure
Cost Reduction

\$10.08M

IT Staff
Productivity

\$8.50M





IDC ExpertROI® SPOTLIGHT

Symantec Delivering on Its Strategic Vision with Next-Generation Secure Datacenter Powered by Cisco ACI

Sponsored by: Cisco

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Overview

Symantec Corp. (Nasdaq: SYMC), founded in 1982, is among the largest software companies in the world, providing security, storage, backup, and availability management solutions. Symantec operates one of the largest global data intelligence networks, and Symantec's solutions help customers secure, manage, and protect their information. With 19,000 employees in more than 50 countries, Symantec offers a portfolio of solutions that includes Norton security products and integrated enterprise software solutions, among other offerings.

Although a technology leader itself, Symantec concluded that it needed to upgrade its own datacenter environment to execute on its strategic business vision of delivering "a global exceptional experience" to its customers. It perceived a need to simplify its datacenter architecture and make it more powerful to create the agility and operational efficiencies its business requires. The company also believed it had to improve the efficacy of its security controls by moving security controls closer to the data, reducing redundant controls by isolating workloads and network streams, and employing innovative ways to deploy those controls at a lower overall cost.

To accomplish these objectives, Symantec decided to deploy a next-generation secure datacenter that would be anchored by a software-defined network (SDN) and allow it to bring IT resources back in-house. After reviewing and considering several SDN solutions, Symantec chose the Cisco Application Centric Infrastructure (ACI). According to Vince Spina, VP of IT, Global Network Infrastructure and Data Center Services at Symantec, his company concluded that Cisco ACI would best enable it to establish a "modern, agile environment" to meet business challenges for the next decade. He explained, "We don't look at deploying Cisco ACI as a network refresh but as a way of changing how our datacenters operate."

Spina said that Cisco ACI has already made Symantec's datacenter operations more efficient and effective while delivering significant cost savings and improving security. According to Spina, Cisco ACI

Business Value Highlights

Organization: Symantec

Location: Mountain View, California

Challenge: Deploy a next-generation secure datacenter to deliver on the strategic business vision

Solution: Cisco ACI

Five-Year Cumulative Benefits

- \$145.11 million in business benefits
- ROI of 441%
- Payback in 11.0 months

Other Benefits

- 87% faster application development life cycle
- Zero unplanned Cisco ACI-related downtime
- 40 times more network backbone bandwidth
- 79% more efficient network operations and engineering once fully deployed

enables Symantec to use automation, application templates, and orchestration to better manage network resources and IT operations. Moreover, with ACI now in place, Symantec's key business applications are deployed in much less time and quality-of-service (QoS) levels have improved. These performance improvements are occurring even as Symantec benefits from what Spina called the "astronomical economics" of migrating to Cisco ACI and its next-generation secure datacenter, reducing expenditures on network hardware, compute resources, facilities, and power.

Spina also cited security policy automation enabled by Cisco ACI as a major advantage. This automation improves Symantec's capability to isolate and protect workloads and allows security controls to be implemented closer to the data they are intended to protect. In fact, in addition to deploying ACI as its network infrastructure solution for delivering on its business vision, Symantec is working with Cisco to develop and provide security solutions for the ACI environment and working on deploying Symantec protection solutions in innovative ways that optimize the capabilities of security policy automation.

IDC conducted several interviews with Spina to understand the impact of Cisco ACI on Symantec's operations and business. Based on these interviews, IDC projected the impact of Cisco ACI on Symantec over a five-year period. IDC calculates that Symantec will achieve total business benefits of \$145.11 million over five years of using Cisco ACI, which would result in an ROI of 441% and a payback period of 11.0 months.

Implementation

Symantec decided several years ago to upgrade its datacenter environment to support its dynamic business requirements. It concluded that a foundational aspect of building a "next-generation secure datacenter" would be to deploy an advanced SDN infrastructure. It carried out a proof of concept (PoC) in 2013 and chose Cisco ACI after completing the PoC process and conducting research on various SDN solutions. Symantec also decided that its deployment of Cisco ACI and its move to a new datacenter environment would serve as opportunities to move IT operations in-house and shift away from using a managed services provider to manage, maintain, and administer its datacenter environment.

Symantec concluded that of all the SDN offerings it considered, Cisco ACI would provide the most significant operational and management benefits. The company's decision was also influenced by the fact that Cisco ACI would enable Symantec to manage physical and virtual infrastructure with the same toolsets, a key efficiency for Symantec given that its business requires that it maintain a considerable physical infrastructure even as it extends virtualization to a higher percentage of total workloads. In addition, as a security company, Symantec liked the security policy automation Cisco ACI offers, and it saw advantages of using a solution that leveraged Cisco hardware, including Cisco UCS servers and Cisco Nexus 9000 network series switches.

In May 2014, Symantec began building out its next-generation secure datacenter with Cisco ACI as the network foundation. Complementing its broader strategy of bringing IT services in-house, Symantec created a core team responsible for deploying Cisco ACI that has now developed substantial expertise for managing and running the Cisco ACI environment. It took this Symantec team about four months to stand up Cisco ACI and begin running applications on it.

In January 2015, Symantec began migrating business applications to Cisco ACI and its next-generation secure datacenter. Since then, Symantec has followed a policy of migrating business applications in a measured way, moving single-tier applications first and leaving more complex applications in its

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production environment for later migrations. Symantec expects to have fully migrated from its legacy datacenter environment to the next-generation datacenter environment by January 2017.

In addition, Symantec has begun to deploy Cisco ACI for its datacenter disaster recovery operations. According to Spina, Symantec also plans to deploy Cisco ACI in its laboratories around the world in future years. For the purposes of this study, the benefits and costs associated with expanding Cisco ACI beyond Symantec's new next-generation secure datacenter environment have not been considered because of their more speculative nature.

Benefits

Spina explained that Cisco ACI provides three critical competitive advantages for Symantec: more efficient datacenter operations, greater business effectiveness, and lower cost. This means that with Cisco ACI in place, Symantec has the networking agility and flexibility it needs to support and drive its business while making IT staff and line-of-business employees more productive, all at a much lower cost than that of its legacy datacenter environment.

Spina credited Cisco ACI with enabling substantial efficiencies in network operations and engineering for the next-generation secure datacenter. He explained that policy-driven automation applied to workloads through the Cisco Application Policy Infrastructure Controller (APIC) allows staff members to spend far less time preparing for and making manual network-related changes. As Spina said, "Because policy automatically follows workloads, we can basically make changes with a point and click." In addition, because Cisco ACI enables Symantec's IT networking staff to manage physical and virtual infrastructure with the same set of tools, Spina's team realizes further time efficiencies.

In addition, the combination of the APIC and workload isolation allows Symantec to apply controls, such as firewall, intrusion detection, Symantec Data Loss Protection, and Symantec Endpoint Protection, in a more granular fashion that is in line with the value of the workload. Moreover, Symantec can apply these controls largely in the same "touch of a button" method described previously.

Cisco ACI is also making Symantec's IT operations more effective and better able to support the business. It has done this by bringing agility and scalability to Symantec's application development efforts. Spina explained that automation, orchestration, and use of templates with Cisco ACI enable his team to provide the necessary datacenter resources to support application development efforts in substantially less time, and this has helped Symantec's application development team reduce the average application development cycle from three to four months to two to three weeks. According to Spina, "We need to move at the speed of business and be an enabler, not an impediment. ACI is helping us do this by applying policies to applications that help us focus on delivering the applications the business needs rather than the plumbing supporting the applications."

In addition to these efficiencies in application development, Symantec expects to realize substantial efficiencies in automating the deployment of key network security services such as load balancers and firewalls when these service chaining capabilities are added to the Symantec network during the next deployment cycles. Beyond saving staff time, automation and orchestration should help reduce the possibility of all-too-common human error in deploying these key network resources.

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Spina also described how Symantec users benefit from much-improved network performance with Cisco ACI. According to Spina, Symantec has increased its network bandwidth to 40Gbps from mostly 1Gbps connectivity. This means that Symantec's network infrastructure better supports the company's business and provides the network speeds and capacity that Symantec's business demands. As Spina said, "Business users sense that IT is now better positioned to meet business demand."

Symantec is also realizing substantial datacenter capital expense (capex) and operating expense (opex) savings with Cisco ACI. The most direct impact on datacenter capex is on Symantec's network hardware. As Spina explained, "By moving to a leaf-spine architecture with Cisco ACI, we no longer need a pair of core switches per security zone, which is helping reduce the number of cores we have by 75-80%. All told, we'll eliminate over 100 switches in the datacenter and save tens of thousands of network ports." In addition, Symantec expects automated provisioning and orchestration with Cisco ACI to help it extend multitenancy to firewalls and load balancers, which will reduce its spending on these critical components of its network infrastructure. Further, Spina described Cisco ACI as "the underlying network technology that enables its next-generation datacenter to reach its potential," which includes significant reductions in terms of the costs associated with servers, space, power, and cooling.

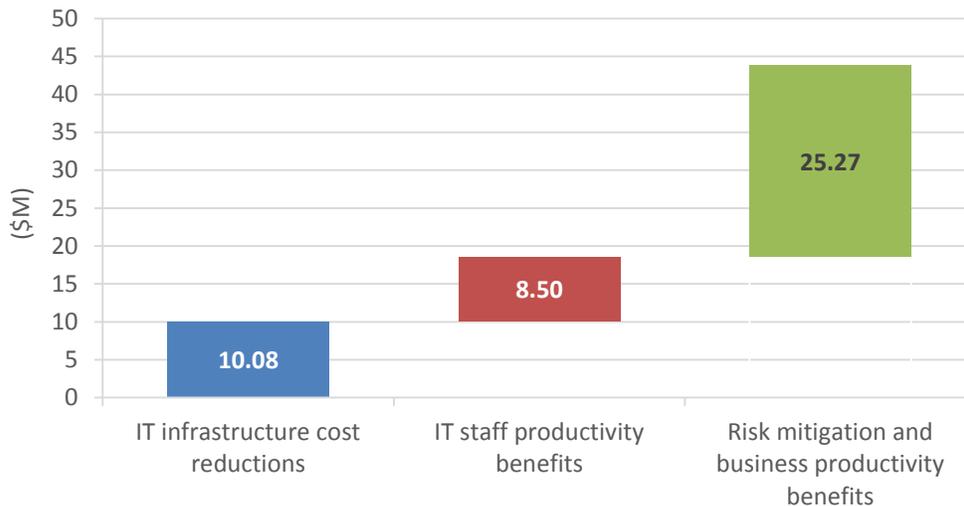
In addition to all of these benefits, Spina credited Cisco ACI with providing the highest possible levels of network reliability so far – with zero unplanned outages since its initial deployment.

Quantifying the Benefits

Based on interviews with Spina, IDC quantified the business benefits Symantec will realize from its Cisco ACI deployment. When projected over five years, these benefits will average \$43.85 million per year (see Figure 1).

FIGURE 1

Average Annual Benefits



Total Average Annual Benefits: \$43.85 Million

Source: IDC, 2015

IT Infrastructure Cost Reductions

Cisco ACI is enabling Symantec to reduce both datacenter capex and datacenter opex as it moves to its next-generation secure datacenter environment. The leaf-spine architecture of Cisco ACI allows it to support Symantec architecture with far fewer expensive network switches. In addition, Symantec's ability to use multitenancy for firewalls and load balancers will help the company avoid substantial costs associated with provisioning these components of its network infrastructure. Meanwhile, by helping Symantec extend virtualization in the new datacenter environment, Cisco ACI will contribute to savings on costs related to servers, floor space, power, cooling, and maintenance.

IDC projects that in total, Cisco ACI will enable Symantec to save an average of \$10.08 million per year over five years on capex and opex related to its datacenter environment.

IT Staff Productivity Benefits

Symantec is able to carry out network operations and engineering with far fewer staff resources since deploying Cisco ACI. IDC calculates that compared with the staff Symantec's managed services provider dedicated to managing these network-related responsibilities in the company's legacy datacenters, Symantec will realize average efficiencies of 79% in network operations and engineering once it has fully migrated applications to its next-generation secure datacenter. This not only makes Symantec's network operations much more cost effective but also has provided the opportunity for Symantec to establish a team of experts who can help leverage the Cisco ACI environment to maximize business benefits.

In addition to these day-to-day efficiencies, Symantec expects that staff responsible for provisioning of network-related equipment, including firewalls and load balancers, as well as Symantec's Data Loss Protection and new Advanced Persistent Threat products, will spend much less time deploying these resources once service chaining features are deployed in the Symantec network. While Symantec does not expect to begin achieving these types of time efficiencies for another year or two, it expects to reduce the staff time required to deploy a firewall from 40 hours to only 1 hour.

IDC projects that in total, Symantec will achieve IT staff productivity benefits worth an average of \$8.50 million per year over five years with Cisco ACI.

Risk Mitigation and Business Productivity Benefits

Symantec has already leveraged Cisco ACI to better support users and the business with IT services, and the magnitude of benefits should increase as the company moves more applications to its next-generation secure datacenter. For now, users are benefiting from Cisco ACI as a result of faster application development cycles, improved application performance, and not losing productive time due to downtime. With an average of several thousand internal users per business application, these types of improvements translate directly to increased user productivity. IDC projects that Symantec will realize operational efficiencies with an average value of \$25.27 million per year over five years by enabling its employees to better use business applications to do their jobs with Cisco ACI.

Cisco ACI is also supporting the efforts of Symantec to deliver the highest-quality security-related solutions to its customers. These benefits remain more challenging to quantify given the ongoing nature of Symantec's deployment of Cisco ACI, but improvements to application performance, faster time to market for applications, and the highest possible availability of applications all positively impact the ability of Symantec to serve its customers and grow its business.

Return on Investment

IDC calculates that Symantec will achieve discounted benefits worth \$145.11 million over five years through its deployment of Cisco ACI in its next-generation secure datacenter compared with a discounted investment of \$26.80 million. IDC projects that as a result, the security company will earn a five-year ROI of 441% on its investment and will break even on its investment in 11.0 months (see Table 1).

TABLE 1

Five-Year ROI Analysis

Benefit (discounted)	\$145.11 million
Investment (discounted)	\$26.80 million
Net present value (NPV)	\$118.31 million
Return on investment (ROI)	441%
Payback period	11.0 months
Discount rate	12%

Source: IDC, 2015

IDC conducted several interviews with Spina to discuss Symantec's use of Cisco ACI and to gather the information needed to quantify the benefits and investment associated with the company's use of Cisco ACI and created an ROI analysis from the results.

IDC calculates the ROI and payback period in a three-step process:

1. Measure the financial benefits directly resulting from the solution, including decreased IT infrastructure costs, increased IT staff and user productivity, revenue enhancements, and operations cost reductions since deployment.
2. Ascertain the total investment.
3. Project the investment and benefit over five years and calculate the ROI and payback period. The ROI is the five-year net present value (NPV) divided by the investment. Payback period (expressed in months) is the time required to pay back the initial investment and establish a positive cash flow. To account for the time value of money, IDC bases the ROI and payback period calculations on a 12% discounted cash flow.

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