Success Story

Seven Corners Meets Travelers’ Needs—Fast and Efficiently—with a Private Cloud Built on Cisco, NetApp, and VMware

CUSTOMER PROFILE
Seven Corners, Inc., is one of the most experienced international travel health insurance, trip insurance, and specialty benefit management companies in the industry. Since 1993, the privately held company has provided protection and professional-assistance services to hundreds of thousands of international travelers, including U.S. citizens traveling overseas and foreign nationals traveling to the United States. Headquartered in Carmel, Indiana, Seven Corners is a member of the U.S. Travel Insurance Association and is a certified General Services Administration contract provider. (Source: www.sevencorners.com)

THE CHALLENGE
Refresh servers/storage infrastructure for availability, agility, and efficiency.

For a premier international travel insurance company, well-traveled clients are a good thing; well-traveled servers are not. In mid-2010, when Seven Corners Chief Information Officer George Reed was challenged with building a future-enabling infrastructure, existing physical-server systems with direct-attached storage were very near the end of the road. Reed says, “We were still reliably delivering 24/7 services, but with much of our technology footprint approaching end of life, daily outage and recovery costs were approaching $3,000. Based on hard-reboot rates, we calculated that without new technology in place by December of that year, we could be facing business-disrupting failures.

“To avoid any negative business impact,” Reed goes on, “we needed to quickly design and build out a more reliable infrastructure. Additionally, to ensure the best return on our technology investment, we sought efficiencies that would allow us to reduce the time and costs of delivering new services to market, plus flexibility and scalability to support the company’s eight-year plan for continued double-digit annual growth.”

THE SOLUTION
Build private cloud on Cisco®, NetApp®, and VMware®.

Seven Corners considered proposals from multiple service providers, ultimately selecting a solution presented by Netech Corporation, a network technology company, leading
“In our business, where customers are clamoring for new services, time to market determines which company gets the business—typically the first to deliver wins 60% of the revenue. The agility and flexibility we’ve gained from this infrastructure help us deliver products faster, quickly identify and reduce losses on unproductive programs, and rapidly capitalize on successes.”

George L. Reed II
Chief Information Officer, Seven Corners, Inc.

provider of IP-based integration services in
the Midwest United States, and participant
in Cisco, NetApp, and VMware partner
programs. Reed explains, “Netech archi-
tected a Cisco, NetApp, and VMware solu-
tion that delivered immediate engineering
value with scalability and configuration
flexibility to enable all phases of our strategic
plan, including implementing virtual desktop
and cloud-based services. The expertise of
the Netech team and their deployment of a
single platform built from unified compute
fabric and storage technologies also allowed
them to achieve a very aggressive delivery
schedule. Speed to implementation was as critical a factor as scalability.

“When the infrastructure went live mid-
November, Netech helped with our initial
physical-to-virtual (P2V) migrations, including
a critical Web server scheduled for testing in
the new environment before it was moved
into production. Perhaps fortuitously, the
failure we thought might happen in December
occurred within just minutes of P2Ving our
first Web system. When the physical server
blue-screened, we were forced to forego
testing and move the full production envi-
ronment onto the new virtual server. It ran
perfectly the first time and has worked
flawlessly ever since.”

Today, a high-availability NetApp FAS3140
provides approximately 14TB of usable
capacity (via FC) to 4 Cisco UCS B200
M2 Blade Servers running some 75 virtual
servers in a VMware vSphere™ 4.1 environ-
ment. To manage the infrastructure, Seven
Corners leverages built-in technology from
Cisco, NetApp, and VMware. VMware
vCenter™ provides a central framework for
managing resources as virtualized data
center pools. Both NetApp Virtual Storage
Console and Cisco UCS Manager™ integrate
with VMware vCenter to coordinate manage-
ment across infrastructure components.

BUSINESS BENEFITS

Keeping the world clock:
24-hour availability

Clients traveling the globe expect 24/7/365
access to Seven Corners services, whether
for emergency assistance or simply to enroll
in new insurance plans, verify coverage, or
find a local provider. At any given time, there
are 70 to 120 Seven Corners Assist service
professionals, claims analysts, enrollment
agents, and other staff accessing IT services.
More than half of the company’s external
business comes in through its e-commerce
Web presence of some 45 Web sites and
more than 200 branded domains.

“To support these members, staff, and
business processes, we require nonstop
technology availability—and that’s what
we’re delivering with the Cisco, NetApp,
and VMware solution,” emphasizes Reed.

“Since deploying the new shared IT infra-
structure, we have experienced no down-
time. By successfully reducing daily outages
from an average of 12 across our core
physical servers to 0, we’re saving at least
$750,000 in annual downtime costs.

“In the past, an outage on our major policy
servicing and fulfillment application would
have cost the business at least $80,000
every day the system was down, and build-
ing a replacement server could have taken
as much as six weeks. Today, that applica-
tion and the databases behind it run reliably
24/7 to protect business services, transac-
tion data, and the productivity of both
customer service staff and IT database
administrators. The joint Cisco, NetApp,
and VMware reference architecture delivers
equipment resilience with highly reliable
components, data protection, high-availability
features, and recovery technologies. As a
result, we’re able to deliver to the business
nearly zero-chance-of-failure IT services.”

Service, please, and make it snappy

Mike Ellis, technical services manager at
Seven Corners, adds that the new infrastruc-
ture helps development and test teams more
quickly deliver higher-quality services. Ellis
says, “Because we can so quickly provision
new resources—it literally takes 12 seconds
to create a virtual machine in vSphere—and
use technologies like NetApp FlexClone®
software to create multiple dev/test environ-
ments, we have more opportunity to fine-
tune applications before we move them into
production. The processing power of the
Cisco servers and the speed of NetApp
storage have also enabled dramatic perfor-
ance improvements in Web services and
reporting processes. Today, for example,
aggregate performance reports that used
to take up to 6 hours to complete now run
in less than 10 minutes.”

“In our business, where customers are
clamoring for new services,” continues
Reed, “time to market in many cases deter-
makes which company gets the business—
typically the first to deliver a solid new
product wins 60% of the revenue. The agility
and flexibility we’ve gained from this infra-
structure help us deliver products to the
market faster, more quickly identify and
reduce losses on unproductive programs,
and more rapidly capitalize on successes.

Our product teams used to review programs
and make major decisions quarterly. Today,
with aggregate claim reporting and actuarial
at their fingertips, they can do it weekly.

“We’re also leveraging the same infrastruc-
ture to pilot a 40-seat VMware View virtual
desktop environment. Our expectation is to
deploy by early next year some 175 desk-
tops for corporate staff and engineers at
our follow-the-sun testing partner. Rather
than setting up physical systems on site
at our corporate data center, we’ll be able
to support test engineers working around the globe and around the clock. In our test-driven software development environment that makes use of agile software development, we expect we’ll save more than $200,000 in development costs and take more than three months off delivery time. We estimate that, taken together with improved performance, faster provisioning, and cloning capabilities, these benefits will help us shrink some development cycles from up to six months to just six days or less.”

Efficiency exchange rate: 8-month ROI
“When we started this project, we also considered traditional blade-server solutions from vendors like Dell EqualLogic,” Reed discloses. “But the costs to integrate disparate technology components and to scale for succeeding project phases proved prohibitive. Alternatively, by deploying the Cisco, NetApp, and VMware reference architecture integrated technology stack, we will in just eight months return 100% of our phase-I investment. And that’s a conservative estimate. In calculating return on investment [ROI], we considered only hard, direct project costs.”

Ellis suggests that additional savings are considerable, citing these examples not factored into the ROI analysis:

- **Capacity savings.** “With NetApp deduplication technology, we’re using 60% less storage, the equivalent of a year’s worth of new capacity. In reality, we’re leveraging that and the other infrastructure savings to expedite the next two phases of the project, including deploying our virtual desktop environment approximately two years earlier than planned.”

- **Staff and IT resource savings.** “Last year some 80% of our IT dollars went into break-fix. In the last three months, that percentage has dropped to 16% with recovered resources being applied to new-project work. We’re also doing more with less across the company. For example, leveraging this technology, analysts and sales teams are supporting double-digit business growth with no staff adds.”

- **Power and space savings.** “After deploying the new infrastructure, our data center looked like someone had robbed it of equipment, just like in the commercial. Previously, our cooling system ran nonstop but could not drop the room temperature below 75°. It now cycles reasonably to maintain a consistent 69°.”

- **Licensing and management savings.** “Before, we supported 58 disparate systems and spent as many as 500 hours annually on routine provisioning and capacity management tasks. Now we leverage a single pane of management and have reduced that number by an order of magnitude. I’d be surprised if it takes more than five hours now to do those same routine tasks.”

Figure 1) The Cisco, NetApp, and VMware solution enables both Seven Corners development and Seven Corners production environments, including the company’s mission-critical customer relationship and insurance lifecycle system. The new infrastructure supports some 120 internal users and provides resources to a mission-critical proprietary Web front-end application; Microsoft SQL Server® back-end databases; a Microsoft SharePoint Server® 2010 farm; online quote, credit-card processing, and claims adjudication systems; data marts and warehouses; and other business-process and Internet applications developed and supported using Adobe ColdFusion 9, Microsoft Team Foundation Server, and Microsoft rules engines.
“With NetApp deduplication technology, we’re using 60% less storage, the equivalent of a year’s worth of new capacity. In reality, we’re leveraging that and the other infrastructure savings to expedite the next two phases of the project, including deploying our virtual desktop environment approximately two years earlier than planned.”

Mike Ellis
Technical Services Manager, Seven Corners, Inc.

Scaling to meet a world of travelers’ needs
Reed summarizes, “Upon project completion, we will store 100% of our data on NetApp and deliver all of our IT services via a private cloud built on the Cisco, NetApp, and VMware reference architecture. Utilizing VMware vCenter Configuration Manager, orchestration tools, and privileged account and access structures, we also expect to enable self-provisioned services that will allow us to dramatically scale services to our users without expanding IT staff. For example, our sales department will be able to process hundreds more RFPs each month, and analysts will have the capability to handle nearly 70 times more weekly claims. This infrastructure has delivered value now and value for the future—no other solution could deliver an equivalent combination of immediate functionality/efficiency and long-term scalability/flexibility.”

SOLUTION COMPONENTS

NetApp Products
NetApp HA FAS3140
NetApp FlexClone, SnapVault®, and SnapMirror® software
NetApp OnCommand™ software
NetApp deduplication and SnapRestore® technologies

Protocols
NAS (CIFS) and SAN (FC)

Partner
Netech Corporation
www.netechcorp.com

Environment
VMware vSphere 4.1 Enterprise Plus
Cisco UCS 6120 Fabric Interconnects
Cisco UCS B200 M2 Blade Servers
Cisco MDS 9148 Multilayer Fabric Switch
Cisco Nexus 1000V Virtual Network Switch
Cisco Catalyst 4900M Switch
Microsoft Windows® Server 2008
Microsoft SharePoint Server 2010
Microsoft SQL Server 2008
Microsoft Team Foundation Server
Adobe ColdFusion 9