

Application Brief

Insurance.com Finds the Right Policy with Virtualization

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Reduces Costs by 25%, Improves Development Flexibility and Achieves Performance Gains with Champion Solutions Group Virtualization Architecture

Highlights:

INDUSTRY

Insurance

CHALLENGE

Insurance.com needed to improve manageability for its large and cumbersome server environment, enable rapid test server provisioning, and reduce IT costs.

SOLUTION

Champion Solutions Group designed an architecture that could simplify the server sprawl and enable rapid test provisioning. The Virtualization solution featured:

- VMware Infrastructure running on IBM x3650 servers for production and DR locations
- VMware Lab Manager for test server deployment
- NetApp FAS2050c storage for streamlined, scalable storage management
- Acronis software to maintain a copy of digital assets during the migration

RESULTS

Insurance.com has already realized significant improvements, including:

Cost Savings: Reduced its overall IT costs by 25 percent, with a 60 percent cost savings for its DR site alone

Simplified Test & Dev: Test and development environments can now be deployed with ease and have allowed IT to cut service delivery for new website features in half

Added Consumer Functionality: Consumers can now receive daily information on rate changes by state

Performance Gains: Employees and consumers are benefiting from a 3x performance improvement, while IT has simplified ongoing management and maintenance

Ease of Management: Provisioning production servers has been reduced from five days to two hours, re-boots went from five minutes to just seconds, and patching is no longer an issue

Dedicated to empowering consumers, Insurance.com is the largest online insurance quote resource in the United States, providing real-time insurance rates across 15 different providers in 46 states. With the ability to compare rates from Insurance.com's partners, nearly one million consumers have purchased policies through Insurance.com since its inception. But with growth always comes challenges. When the company's growing server environment threatened IT's ability to deliver on SLAs, Insurance.com embarked on a virtualization initiative with Champion Solutions Group that has transformed its business. With results including a 25 percent cost savings, a 3x performance improvement, eased management and more rapid service delivery to the business, virtualization has become a "policy" this insurance company can bank on.

Server Sprawl Creates Inflexible Testing Environment

Founded in 2000, Insurance.com's innovative quoting and service model immediately appealed to conscientious consumers. With steady organic growth, though, Insurance.com also accumulated a multitude of two-way application servers that began to hamper IT productivity. Ongoing management activities, and particularly testing, were becoming cumbersome and time consuming.

"One of our primary directives is to develop, test and deploy new application features for our E-Commerce site," said Tom Lang, IT manager for Insurance.com. "Our testers had to physically leave their seats, go into a back room with multiple workstations running various operating systems and browser versions, and manually enter each machine to run verification tests on the new code. With 125 servers to manage and an inflexible testing environment, it was becoming increasingly difficult to meet our key directives without adding manpower."

Knowing that virtualization could help simplify the server sprawl and enable rapid test server provisioning, Lang engaged Champion Solutions Group, a VMware VIP Premier / VAC Partner and IBM Premier Business Partner, to design an architecture that would both increase flexibility and streamline costs for the environment. "We knew we wanted to utilize VMware in our environment," said Lang, "but we needed the underlying hardware architecture to be equally proven, robust and reliable. We were confident that Champion had the expertise to guide us forward."

Making the Case for Virtualization

Using a time-tested, proven methodology, Champion Solutions Group and Insurance.com engaged in a detailed server virtualization assessment, which verified ideal conditions for virtualization. A majority of Insurance.com's 125 servers were experiencing extremely low utilization – many operating at less than 5 percent.

"It was a classic virtualization scenario for 80 percent of the company's data center environment, with compelling potential cost savings in administration, maintenance, power and space," said Champion Solutions Group's Client Manager for Insurance.com. "In addition, Insurance.com had an impending facility move, making it the ideal time to virtualize. Instead of moving old gear to the new facility and then migrating to VMware, the company could literally virtualize machines as it moved."

Based on its assessment and discussion of the company's growth and performance objectives, Champion Solutions Group designed an initial architecture featuring VMware Infrastructure running on four IBM x3650 hosts. Acronis software was leveraged to maintain a copy of digital assets during the migration, which proved invaluable to the success of the project. Additional virtualization projects were then undertaken as Insurance.com's business needs demanded and as budget and schedules allowed: VMware Lab Manager was implemented on five physical IBM x3650 hosts to streamline the development and test environments; a NetApp FAS2050c was deployed to provide streamlined, scalable storage management, and a mirror disaster recovery architecture was established at a co-location facility.

"The Champion team was there for us through every step in the virtualization process, identifying the right technology for each specific challenge and implementing it seamlessly," said Lang. "Time and again, they went above and beyond the call of duty to ensure our success. During our initial migration, our sales rep and solution architect actually arrived on site to physically help us dismantle the old data center and move to the new facility. Now, that's partnership."

Virtualization Makes Its Mark

Within weeks of the initial rollout, virtualization became mainstream technology at Insurance.com, and it continues to deliver powerful results for management, consumers and employees.

The company is currently running 85 virtual machines on nine physical x3650 hosts, with plans to convert 50+ more servers before year-end. Many of the company's critical servers supporting e-mail messaging, e-commerce, financial reporting and customer databases, have already been converted and are successfully running in the virtualized environment.

With reductions in physical hardware, and power and maintenance costs, Insurance.com has realized an overall cost savings of 25 percent – a number Lang anticipates will climb as more servers are migrated. The company remains on track to meet its target of consolidating its overall data center environment by 80 percent, moving from 125 physical servers to approximately 22. "In the current economy when overall purchase rates for insurance are down, being able to deliver cost savings and efficiencies to the business – while still providing availability and performance – can't be underestimated," said Lang. "Management is thrilled."

Equally important, the environment has delivered on the flexibility it promised to the IT staff. Delivery of new website features such as embedded video and "rate watch" widgets, which allow consumers to receive daily information on rate changes by state, has dramatically improved. According to Lang, the business mandated that his team increase new feature roll-out from once a month to every two weeks – a feat that would have been exceedingly difficult in the old environment, but a directive that virtualization has made easy to accomplish.

"Our team has been meeting the two-week new-feature directive for months, thanks to VMware Lab Manager, which allows us to deploy test and development environments almost instantaneously," said Lang. "We can deploy up to 120 virtual environments at a time, as well as securely extend them to contractors when needed."

The administrative burden has been reduced across the board. Management of the environment takes place through one central console, and provisioning production servers has been reduced from five days to two hours. Re-boots that used to take five minutes now take seconds, and patching – a notoriously painful experience – is a non-issue in the new environment. "We simply take a snapshot of the virtual machine, and if there's an issue with the patch in production, we immediately roll back to the snapshot," explained Lang.

Similarly, the NetApp FAS2050c has substantially eased storage management with centralized administration and the ability to economically scale. "Together, these improvements have been critical to helping us maintain 99.99 percent availability for consumers and successfully deliver on key SLAs to the business."

An additional benefit of the new architecture has been a significant performance boost for critical applications such as e-mail and the e-commerce site. Lang estimates that throughput for Web servers is three-to-four times faster in the virtualized environment compared to before.

"With most business users leery of the unknown, I anticipated having to internally 'sell' users on the benefits of moving their applications to the virtualized environment. Within weeks of the rollout, however, I had managers approaching me requesting virtualized environments for their projects because they saw how quickly servers could be deployed and how exceptional the performance was. Virtualization literally sold itself."

A Culture of Virtualization Takes Root

With such significant success from the initial virtualization efforts, Champion Solutions Group recently helped Insurance.com expand virtualization to its disaster recovery (DR) site, resulting in a 60-percent savings in hardware, power and cooling costs. "

Seeing how well virtualization supported business continuity in our production environment made it an easy leap to leverage it again for DR," said Lang "As a result, we were able to avoid significant capital expenditure for a full rack of DR hardware." For Insurance.com, one could say that virtualization has become a way of life.

Virtualization is the environment of choice for new applications and development projects, and the company is now beginning the process of virtualizing its desktop environment with Champion Solutions Group again by its side.

"We've realized enormous gains from virtualization, but it's important for other companies to realize it wasn't a big-bang effort," concluded Lang. "We were able to accomplish multiple objectives in a phased approach as our budget allowed. Both Champion Solutions Group and Insurance.com stayed focused on the end goal – and now we're reaping the results."

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