ACI SPECIALTY BENEFITS USES VMWARE TECHNOLOGIES TO GAIN MARKET SHARE AND SUPPORT 300% ANNUAL GROWTH

INDUSTRY
GLOBAL BENEFITS PROVIDER

LOCATION
SAN DIEGO, CALIFORNIA

KEY CHALLENGES
- Modernize data center to deliver superior service amidst rapid business expansion
- Maintain strict data security compliance in multiple geographies
- Cost-effectively manage surge in data from wearable medical devices

SOLUTION
Now three years into an international expansion initiative, ACI Specialty Benefits is growing by approximately 300% per year from a digital perspective, and now covers over 12 million lives worldwide. To help efficiently manage the challenges created by exponential global growth, ACI chose VMware server, storage, and network virtualization combined with automation.

BUSINESS BENEFITS
- Able to onboard acquisitions into secure virtual environments in days
- Providing 99.999% uptime, 35% better performance, and easier compliance
- Reduces CapEx, decreasing data center TCO by 60%

The global economy has created huge opportunities for ACI Specialty Benefits (ACI). Once focused on providing employee and student benefits solutions to the U.S. market, ACI is now applying its expertise worldwide. Through acquisitions and organic growth, ACI's business has expanded to cover over 12 million lives worldwide, leading to a 300% annual growth in digital benefits coverage for three straight years.

To sustain its global growth strategy, ACI worked with VMware to build a private cloud in a software-defined data center environment. With a software-defined approach, ACI can quickly onboard acquired companies' systems and data, provide end users with superior services and uptime, and easily meet compliance requirements in diverse geographies. It can also more securely and cost-effectively manage a deluge of data from wearable medical devices.

Founded in 1983 by Dr. Ann Clark, ACI Specialty Benefits provides employee assistance programs (EAPs), workplace wellness, concierge, and student assistance, covering over 12 million people worldwide. With a 95% customer retention rate, ACI is known for anticipating needs, exceeding expectations, and providing innovative benefits solutions to customers worldwide. Its customers benefit from increased employee engagement, savings in health care and turnover costs, and improved productivity from a high-performing workforce.

The Challenge
ACI's services appeal to companies that want to provide high-quality, secure, and compliant employee benefits programs while avoiding the cost and complexity of managing them in-house. One of the first companies to offer a software-as-a-service EAP system, ACI has experienced tremendous organic growth and is aggressively expanding into new markets through acquisitions. On average, ACI acquires several companies every month, driving 300% annual growth in data and digital coverage. Data is also growing at unprecedented rates because ACI collects data from thousands of wireless-enabled medical devices and activity trackers worn by its clients' employees.

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"Nobody knows exactly what's going to happen when a company is growing at 300% a year, so we have to be ready for anything. With our software-defined data center powered by VMware, we can scale easily, sustain our growth in a controlled and compliant manner, and respond quickly to new business demands."

RYAN FAY
GLOBAL CIO
ACI SPECIALTY BENEFITS

VMWARE FOOTPRINT
• VMware vSphere 6.5 with Operations Management™ Enterprise
• VMware vSAN™ 6.5
• VMware vRealize® Automation™ Enterprise
• VMware NSX® Enterprise

APPLICATIONS VIRTUALIZED
• Microsoft Exchange Server
• Microsoft SQL Server
• Oracle database, employee benefits applications

PLATFORM
• Dell

PARTNER
• ScaleMatrix

Years ago, ACI virtualized its data center with VMware vSphere® to increase performance, consolidate hardware, and onboard new customers and acquisitions more efficiently. However, as ACI's footprint grew from 2,000 virtual machines (VMs) to 15,000 in just 8 months, the company needed to further streamline administration, enhance visibility, and reduce costs to support its global growth strategy.

"We started acquiring companies with large, complex, predominantly physical infrastructures, and we needed to bring them into our virtual environment as quickly and efficiently as possible," says Ryan Fay, Global CIO, ACI. "We also wanted to show the acquired companies' IT departments the many benefits that virtualization could bring to their customers and end users."

Compliance was also a concern, as ACI must comply with HIPAA regulations in the U.S. as well as PCI, ISO, and data privacy rules around personally identifiable information (PII) that vary from country to country. Although ACI uses separate VMs for each client to safeguard personal health information, the company wanted to enhance data and network security to ensure clients that their information would be secure in a multitenant hosting environment.

"We use full encryption to secure consumer medical information and other sensitive data at rest," says Fay. "But in order to check the boxes for certain government contracts, we needed the ability to encrypt the entire VM—not just the data—without impacting performance, and be able to securely move those VMs between data centers."

With petabytes of information flowing through its network every day, ACI also wanted to modernize its data center with automation and a software-defined, hyper-converged infrastructure. "Storage costs were getting out of control, and we needed a more scalable and intelligent network that would be easier to secure," says Fay. "We also saw an opportunity to help our development teams improve time to market by automating the provisioning of dev/test environments."

The Solution

Exponential growth placed huge demands on ACI's data center. To manage global expansion, ACI upgraded its virtual environment with the latest vSphere capabilities, including new features to enhance visibility and security.

ACI had already experienced compelling business benefits using VMware vSphere with Operations Management, including 20% CapEx savings, 40% higher capacity utilization, 50% higher consolidation ratios, and a 35% reduction in the time needed to integrate back-end systems.

"vSphere 6.5 came at just the right time for us, and the migration went seamlessly," says Fay. "We benefit from built-in encryption, improved management with the VMware vCenter Server® Appliance, and faster access to performance metrics through the user-friendly HTML5 Web client."

In describing the migration experience, Fay shares, "Migrating from one vCenter Server to another used to be a time-consuming, manual task for my team. Now we are able to automate end-to-end migrations via VMware's migration tool."

In vSphere 6.5, encryption occurs at the hypervisor level instead of within the VM itself; therefore, the guest operating system is not a factor. Data coming out of the virtual disk controller in the VM is immediately encrypted by a module in the kernel before being sent to the kernel storage layer. In addition, vSphere 6.5 offers encrypted vMotion®, Secure Boot support, and enhanced logging, strengthening ACI's security profile.

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"We no longer have to monitor whether encryption is running in a VM or worry about whether the guest operating system is Linux or Windows," says Fay. "More important, we have peace of mind that data managed in our environment is compliant with HIPAA, PCI, and government standards for protecting PII—even when it's being moved between data centers."

To improve performance and reduce total cost of ownership, ACI stopped buying traditional SAN hardware and began using VMware vSAN 6.5 to provide all-flash storage to its software-defined data center. "With vSAN, we are using all-flash configurations to get a 35% boost in performance while actually reducing costs," says Fay. "We tried another hyper-converged solution, but preferred vSAN because of its cost-effective scalability and native integration with vSphere."

ACI also deployed VMware NSX and vRealize® Automation to enhance security and automate network and service provisioning.

"We wanted to take our multi-tenant private cloud to the next level of security using micro-segmentation, and automate critical functions such as disaster recovery and self-service provisioning," says Fay. "By leveraging the vSphere Predictive Distributed Resource Scheduler® (DRS), we can utilize vRealize Operations to collect hundreds of thousands of metrics across numerous types of objects daily. We can track dynamic threshold calculations to more precisely automate resources on demand and proactively manage workload balance."

With resource pools able to be easily added, removed, or reorganized, ACI now has more flexibility and the ability to subdivide different business units. Coupled with VMware's new Rest-Based APIs, ACI is able to automate and manage more resources effortlessly. "If the workload on one or more virtual machines drastically changes, Predictive DRS will automatically spin up more resources on demand," says Fay.

Business Results & Benefits

Managing Exponential Growth

With improved visibility into its data centers and individual workloads, ACI can resolve problems faster and provide management with up-to-date, easily consumable information about capacity and performance. The result is more agile decision-making.

"Nobody knows exactly what's going to happen when a company is growing at 300% a year, so we have to be ready for anything," says Fay. "If we keep 30% overhead capacity, that could turn to 15% in the morning if we bring on a few new clients—the business is moving that fast. With our software-defined data center powered by VMware, we can scale easily, sustain our growth in a controlled and compliant manner, and respond quickly to new business demands."

Before onboarding a new acquisition's IT systems, ACI uses VMware tools to quickly create demo environments of the new applications and put the target company's leadership at ease. The VMware solutions integrate with ACI's F5 BIG-IP load balancing platform, helping avoid performance problems or service disruptions for end users.

"We can bring a new acquisition into our VMware environment in a matter of days and give them better performance and higher availability than they've ever experienced," says Fay.

Transforming Data Security at Scale

Trust is essential to ACI's business and reputation. Indeed, one reason many clients turn to ACI is to absolve themselves of the risk of storing sensitive employee data themselves. ACI therefore embraces security audits, constantly striving to improve security effectiveness and transparency. With encryption features at the storage, hypervisor, and VM migration layers—as well as network micro-segmentation provided by VMware NSX—the company is well equipped to meet changing data and network security requirements.

"Encrypted vMotion in vSphere 6.5 makes it easier for us when we're working with auditors," says Fay. "More than once I've heard comments such as 'wow, you run a really clean shop.' And being able to do micro-segmentation with NSX makes clients and acquisitions feel much more comfortable about coming into a multi-tenant hosting environment."

NSX enables ACI to run a zero-trust security model inside its data centers and private cloud segmentations. In addition, micro-segmentation allows for ACI to specify granular security policies down to the VM level. This reduces the scope of compliance and cuts down overall audit duration by 20% by isolating the systems that store, process, or transmit sensitive data. "We no longer have to put our environment at risk," says Fay.

Reducing Data Center TCO by 60%

Altogether, the VMware solutions have reduced ACI's data center TCO by 60%, reducing capital expenditures for servers, storage, and the physical networking equipment that was previously required to provide 99.999% availability. As a result, the company was able to avoid raising prices for its customers, even as more data pours in from wearable medical devices.

"Instead of passing data center and storage costs along to our customers, we used VMware networking and storage virtualization to become more efficient," says Fay. "And while we're saving money, we can offer even higher service-level agreements and meet our compliance and regulatory requirements throughout the world."

Speeding Time to Market

By offering self-service infrastructure provisioning to its development teams, ACI is removing the burden of configuring dev/test environments—allowing developers to move faster and be more creative.

"By using VMware NSX and vRealize Automation, we enabled our developers to be 20-30% more efficient in developing crucial business applications that we need to provide white-label services to our customers," says Fay. "Instead of 15-20 projects a week, we are able to complete 25-30 projects per week with the same headcount. That means faster turnaround times for our customers."

Looking Ahead

In an increasingly competitive market, ACI is differentiating itself with superior performance and availability, a strong compliance position, lower costs, and the ability to deliver services faster. "With our software-defined data center based on VMware, we have everything we need to stay cutting edge and continue to gain market share," says Fay. "It has definitely given us a competitive advantage."

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