VMWARE CASE STUDY

INDUSTRY
Non-Profit Community Service

LOCATION
Atlanta, Georgia

KEY CHALLENGES
- Minimize hardware and operating costs
- Deploy cost-effective, scalable endpoint security and disaster recovery capabilities

SOLUTION
United Way of Atlanta consolidated its servers and improved operational efficiency with the VMware vSphere® virtualization platform and VMware Horizon View™ virtual desktop infrastructure (VDI) software. Trend Micro™ Deep Security provided cost-effective, scalable endpoint security for the virtual environment.

BUSINESS BENEFITS
- 60 percent reduction of server maintenance costs, redirected to full-featured NAS systems
- 50 percent improvement in operational efficiency
- Increased business agility to support seasonal changes, new development and servicess
- Cost-effective, scalable endpoint security and disaster recovery for virtualized environment

United Way of Atlanta Drives Down Costs and Improves Endpoint Security with VMware and Trend Micro

United Way of Atlanta faced pressure to minimize operating costs while enabling employees and volunteers to streamline the delivery of services that span 140 programs in 13 counties. Virtualization with VMware vSphere® and VMware Horizon View™ virtual desktop infrastructure (VDI) helped drive down hardware and operating costs and deliver easy scaling of services. Trend Micro Deep Security provided an agentless security solution for this virtual environment that protects sensitive data, helps enable cost-effective disaster recovery and scales along with the business.

United Way of Atlanta is one of the leading nonprofit organizations in the United States. The organization raises around $80 million annually and invests in more than 140 programs that bring measurable results to a 13-county region. These programs focus on solving the most challenging issues in the areas of education, health, homelessness and income.

The Challenge

United Way of Atlanta is one of the largest branches of The United Way. Each year, from August through December, the fundraising campaign increases the demands on the organization's data center and infrastructure. Virtualization has offered a cost-effective platform for scaling services during the busy season.

"The IT needs of a non-profit are the same as a for-profit organization," said Orinzal Williams, the executive director of IT for the organization. "The one key difference is that there is tremendous pressure to keep operating expenses low. We have to do more with less. VMware enables us to provide an enterprise-class data center at an SMB price."

The Solution

Initially, VMware solutions were introduced for support servers. When the benefits were proven, the organization virtualized its production servers, too, and today the organization has replaced 40 individual servers with eight VMware hosts. The data center hosts about 100 virtual machines for most of the year. During the fundraising campaign season, that number increases, ranging from 101 to 150 virtual machines.

"Virtualization has lowered our maintenance costs by 60 percent—we have less hardware to maintain," said Williams. "We have been able to redirect the savings into investments in better hardware. For example, we have been able to purchase full-featured NAS systems to support our virtualization effort, without increasing operating costs."

In addition to virtualized servers, virtual desktop infrastructure (VDI), based on VMware Horizon View™, has also been introduced at United Way of Atlanta. The IT team involved its technology reseller in its evaluation of VDI.

"We have seen increasing numbers of medium-sized businesses turning to VDI to drive down CapEx and OpEx, especially

"Virtualization has given us the ability to handle major incidents without disrupting business. "

— Orinzal Williams, Executive Director, IT, United Way of Atlanta

for remote endpoints such as kiosks," explained Shane O'Grady, the Trend Micro Business Development Specialist at Softchoice, the technology partner for United Way of Atlanta.

"VDI is our growth area, and we continue to expand it to support our temporary staff," said Williams. "It just made sense to go in this direction. Two years ago, we deployed 10 Wyse thin clients, and the trial was very successful. We've now expanded to 100 virtual desktops."

Finding the Right Security for Virtualized Machines and VDI Sessions

VMware vSphere® hosts and VMware Horizon View have introduced a cost-effective and flexible VDI model for the United Way of Atlanta's data center. However, along with the flexibility and other benefits of the virtual environment came a challenge.

We realized that our agent-based endpoint security was not going to scale in our virtual environment," said Williams.

The IT team researched security for VMware environments. A wealth of online information and YouTube video tutorials piqued their interest in Trend Micro™ Deep Security, and follow-up discussions with the local experts convinced United Way of Atlanta that it was the best choice for their VMware environment.

Softchoice was involved in the organization's decision, and was in favor of replacing a traditional endpoint security solution with hypervisor-level security. O'Grady explained, "Deep Security avoids the problem of simultaneous updates, and also provides virtual patching capabilities. No one else comes close to what Trend Micro can do to secure VDI."

After installing VMware vShield™, the deployment of VMware-ready Deep Security was a quick process. "It took about eight hours start to finish—and that was just me doing the installation of Deep Security," said Williams. "I'm not a Trend Micro expert, so that was how long it took including reading the documentation and doing other things. It was a relatively easy process."

Deep Security, a solution validated by VMware, has now been in place for the last year. The IT team has seen the difference in the level of protection offered by Deep Security.

"When a virtual machine is attacked, Deep Security can stop it immediately and clean up is therefore simple. With traditional endpoint security, the recent attack would have taken down that server and files would have been corrupted. We would have to go back and restore the system. Today, with Deep Security, threats are stopped and the bulk of the server is still viable and in use while the threat is managed. Hypervisor-level security really works."

Business Benefits

Prior to deploying Deep Security, United Way of Atlanta had several VDI hosts and approximately 10 other hosts for server activity. With the increased efficiencies of the new agentless security deployment, the organization has been able to remove two of the VDI hosts and four server hosts. The biggest efficiency gains have been seen on the server hosts.

United Way of Atlanta is now making another change in the data center. "We are deploying Cisco UCS server platforms," explained Williams. "The Cisco hardware will further reduce our footprint and allow us to cut the number of physical hosts by half. We are happy to see that VMware and Deep Security are validated on Cisco UCS; this was a positive factor in our UCS decision."

By reducing complexity, virtualization has streamlined operations for the IT staff. "Our entire operations are, at a minimum, 50 percent more efficient with VMware," said Williams. "We are able to provision new servers in less than 10 minutes utilizing server templates. We are able to manage server performance proactively using basic tools within VMware. Looking back, it is clear that VMware has been our best investment in the last five years."

Flexibility has been another major benefit gained from virtualization, and Trend Micro's Deep Security has proven to be well aligned with the agility of the VMware environment and Cisco servers and networks that support United Way of Atlanta. "Deep Security has been a very

VMWARE FOOTPRINT

- VMware Workstation™
- VMware Fusion® Professional
- VMware vSphere®
- VMware Horizon View™
- VMware vCenter™ Operations Manager
- VMware vShield Endpoint™

PLATFORM

- Cisco UCS Servers

ENDPOINT SECURITY

- Trend Micro Deep Security 8.0

good fit in our data center, and provides excellent protection for our virtualized servers and desktops and our continually changing environment," said Williams. "I love it."

Business continuity is also very critical for United Way of Atlanta. Virtualization and Deep Security have not only minimized risks of disruptions in their main data center, but are being used to enable a highly secure disaster recovery facility.

"Virtualization has given us the ability to handle major incidents without disrupting business," said Williams. "We have enough capacity in our virtual environment that we could lose a third of our servers and still maintain operations. Our building is our biggest risk, which is why we have an off-site disaster recovery facility. And with Deep Security, protection for cyber threats is automatically extended to those remote servers. Even if our central Deep Security server goes offline due to a power outage, the agents on each host still operate to defend the virtual machines."

Looking Ahead

The remote United Way of Atlanta data center is also virtualized, and critical applications are replicated and kept up to date at that site even when it is not supporting operations.

"We are a community organization, and we have to be available even in the event of a disaster," said Williams. "With Deep Security protecting our disaster recovery site, we can still operate even in the event of a major outage at our main data center site. We have identified our critical applications on our email, file, web, and database servers, as well as the communications applications that enable our Cisco telephones—Deep Security protects all of these. If we switch over to our remote site, we know that we can still support our community without worrying about attacks."

Moving forward, United Way of Atlanta plans to further expand its use of VMware. The main area of growth will involve replacing more of its traditional desktops with virtual desktops.

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