Major U.S. university boosts infrastructure efficiency

Improved security leads to better system performance

THE CHALLENGE

The large research-focused university relies on open networks to support learning and collaboration among students, professors, and researchers internally and with other organizations worldwide. With this openness comes increased vulnerability to cyberattacks.

The university previously relied on Avast but found it difficult to manage endpoints from a central management cluster. The solution also consumed significant memory resources, slowing computers and prompting numerous trouble calls to the IT support team. In addition, Avast often missed infections and compromised systems, and offered limited technical support to resolve these issues.

THE SOLUTION

To find a long-term solution to security challenges, the university conducted extensive proof-of- concept testing of Bitdefender, Avast, Kaspersky, Comodo, and Malwarebytes security solutions.

"Bitdefender killed the competition," the security administrator says. "It offered umbrella protection across all our endpoints, including Windows, Linux, Apple, and VMware. The product doesn't consume a lot of memory resources and is simple to use. Compliance with the PCI payment standard also was a big win for Bitdefender."

The university replaced Avast with Bitdefender GravityZone to protect 7,000 Windows, Apple and Linux desktop computers, 200 physical servers, and 500 VMware virtual machines (VMs).

THE RESULTS

GravityZone's simplified management capabilities are a key asset for the university. The solution's next-generation layers of protection against sophisticated cyber threats encompass anti-malware, machine-learning, zero-day ransomware protection and real-time process inspection. In addition, GravityZone's multiple layers of protection are delivered via a single agent and only require four services running on a computer.

Installation was seamless, according to the security administrator. "We really like Bitdefender's ready-made appliances. All we had to do was create a virtual space and the configuration was straightforward from there. We only needed three people to set up the cluster. Other products would have required five to eight people to achieve the same."

With over 20,000 students and 5,000 employees, this major U.S. university offers more than 150 undergraduate, master's, and doctoral degrees.

Industry
Education

Headquarters
Southwestern U.S.

Employees
4,000-5,000 (IT staff, 100+)

Results
- Reduced security administrative time from 15-20 hours to 2-3 hours per week

- Decreased endpoint memory footprint by 90 percent

- Improved virtualization density

- Avoided $15,000 purchase of 5-6 servers

The GravityZone on-premise console gives IT more control over endpoints and sees deep inside containers to learn and resolve, for example, that restarts are pending or definitions are old.

GravityZone also generates detailed comprehensive reports on infrastructure status.

"We're getting better protection and intelligence and it's taking much less time for IT to manage security," the security administrator says. "Before GravityZone, we spent 15-20 hours on average per week managing security. Now it can be done in two to three hours.

"With direct access to the console, it's also easier for users. The granularity of the installers is so good they can just log in and download them—Windows, Mac, Linux—whatever they need. It's

brilliant."

With about 500 VMs, the university's IT team always needs to ensure an adequate supply of memory resources for fast performance. Toward that end, Bitdefender offloads endpoint scanning and other security functions to its on-premise security server.

"GravityZone is an exceptionally lightweight solution that consumes the most minimal of compute resources," the security administrator states. "Our VMs and other endpoints are no longer dealing with resource constraints so we're getting great infrastructure performance. Bitdefender's memory footprint on a VM is about 15-20 megabytes versus 180-200 megabytes required by Avast. That's a 90 percent reduction."

The university also credits Bitdefender's small memory footprint with increasing virtualization density. IT has increased the average number of VMs on host servers, improving the overall

efficiency of the infrastructure.

Bitdefender's on-premise console also helped improve efficiency. For example, another competing product would have required an additional three to four servers at a cost of $15,000. With the Bitdefender console, additional servers are not necessary.

Because Bitdefender runs scans automatically in the background, users no longer need to respond to annoying popups. Bitdefender is intelligent enough to delay scans until the computer is using less resources.

"Many users have reported computers are running faster since we installed GravityZone," says the security administrator. "Applications that used to load in 15-20 seconds now only take five to six seconds."

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Security Administrator, Major U.S. University

Bitdefender Footprint
- GravityZone Enterprise Security

- GravityZone On-Premises Management Console

IT Environment
- Oracle VM VirtualBox

- VMware vSphere

Operating Systems
- Apple (Mac)

- Linux

- Microsoft Windows