

BIT9 + CARBON BLACK

Security leader protects companies from massive data breaches with EMC VNX and EMC CloudArray



ESSENTIALS

Industry

Network security

Company Size

Approximately 300 employees

Business Challenge

- Exponential business growth
- Surging data volumes overwhelming storage performance and capacity

Solutions

- EMC [VNX](#) unified storage
- EMC [CloudArray](#)
- VMware vSphere
- Veeam
- Microsoft SQL Server, Microsoft Exchange, Microsoft SharePoint, Microsoft Active Directory, Microsoft Lync, Avaya

OVERVIEW

The flood of news reports about major security breaches at high-profile companies is generating shock waves across the business world. One firm on the forefront of protecting companies from vicious online attacks is [Bit9 + Carbon Black](#).

Offering innovative online security solutions, Bit9 + Carbon Black has tripled its customer base and increased its employee count from 50 to 300 in only two and a half years. With this expansion, Bit9 + Carbon Black encountered some pain of its own. Exponential data growth was overwhelming the performance and capacity requirements of its previous Promise Technology storage, potentially jeopardizing the company's ability to grow without limits.

And with a larger infrastructure and customer base to protect, Bit9 + Carbon Black needed a more sophisticated business continuity strategy.

After evaluating offerings from EMC, Hitachi, IBM, HP, and Dell, Bit9 + Carbon Black selected EMC® VNX® unified storage and EMC CloudArray® cloud-based storage to address these challenges.

Bill Suarez, Bit9 + Carbon Black's director of information technology engineering, explains, "With our company growing at breakneck speed, the data surge that followed nearly blew the roof off of our previous storage. With EMC, we're in a great spot to grow our infrastructure and keep pace with our business expansion."

Suarez recalls a pivotal moment that led to expanding his company's business continuity strategy. "Within hours of the Boston Marathon bombing, office buildings, including ours, were locked down. It was one of those 'ah ha' moments—what if we couldn't get into our building for a prolonged period?"

As a result of VNX, Bit9 + Carbon Black has gained up to 15 times [higher disk performance](#), and sustains that performance as workloads grow. In addition, CloudArray [protects](#) critical data with highly secure and efficient disaster recovery.

SOLUTIONS

Bit9 + Carbon Black deployed VNX unified storage with the EMC FAST™ Suite, consisting of FAST Cache and FAST VP, and flash and high-capacity disk drives. The company runs approximately 30 percent of its workloads on flash drives, which account for just 10 percent of total capacity.

VNX supports all of the company's enterprise applications, including Microsoft SQL Server, Microsoft Exchange, Microsoft SharePoint, Microsoft Active Directory, Microsoft Lync, and Avaya digital PBX.

REDEFINE

CUSTOMER PROFILE

EMC²

Results

- Sustained high disk performance even as business workloads grow quickly
- Improved disk performance 12 to 15 times
- Achieved seamless cloud-based disaster protection for growing infrastructure
- Gained agility to expand business and offer new capabilities
- Expanded storage capacity under administration per IT staff from 30 TB to 120 TB

More than 95 percent of the infrastructure is virtualized with VMware® vSphere®. The company uses Veeam to back up virtual machines (VMs) stored on VNX to an EMC CloudArray software-defined storage appliance.

In addition, CloudArray automatically replicates backups to multiple cloud storage providers for off-site disaster protection. The firm also uses a second CloudArray virtual appliance to provide ad hoc storage requests with short-term capacity, which also is replicated to the Google cloud. Bit9 + Carbon Black protects approximately 30 terabytes of data in the cloud.

BUSINESS GROWTH WITHOUT LIMITS

VNX delivers the high performance the company needs as it continues to grow by leaps and bounds.

"It's amazing how VNX sustains performance with all the data and traffic we've thrown at it," Suarez remarks. "Add to that VNX being able to seamlessly expand capacity and the solution has really exceeded our expectations. VNX gives our company the horsepower and scalability to grow practically without limits."

VNX also has proven more than capable of supporting all 300 employees accessing the system concurrently. In fact, disk performance improved 12 to 15 times.

"We were seeing latency spike to 70 or 80 milliseconds on our old array," reports Suarez. "Now, average latency on the VNX is in the single digits."

FULL RECOVERY FROM A MAJOR OUTAGE

CloudArray provides Bit9 + Carbon Black with essential data protection and recoverability in the event of a short-term outage or total site loss.

"We gained vastly improved recovery capabilities with CloudArray," Suarez says. "By pumping our data into the Google cloud, we could easily spin up new VMs at another site, pull down data from the cloud, and be back in business in about 48 hours."

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Bill Suarez
Director of Information Technology Engineering, Bit9 + Carbon Black

DATA BACKUP, COMPRESSION, AND SECURITY ALL IN ONE

Bit9 + Carbon Black also has improved data protection by writing its Veeam backups to CloudArray instead of local disk like before. Now, the company has automatic offsite protection in the cloud with the efficiency of data compression and security of AES 256 encryption.

For example, a typical Exchange backup of 1.5 terabytes is compressed by a factor of 2.8, accelerating replication to the cloud and saving valuable cloud storage space.

Even more important, CloudArray makes it fast and easy to recover systems and files from the cloud.

"Once, a VP came to us because he had lost some SQL Server reports. Using the Veeam backup catalog and CloudArray, we simply pulled down the file system and database from the cloud. We recovered the reports in 30 minutes instead of spending days recreating them. He was incredibly relieved," says Suarez.

Company Overview

Bit9 + Carbon Black offers a comprehensive security solution that identifies and stops advanced threats targeting network endpoints and devices. Thousands of organizations worldwide—from Fortune 100 companies to small businesses—use Bit9 + Carbon Black to increase security, reduce operational costs, and improve compliance. To learn more, please visit <https://www.bit9.com/>

CUTTING MANAGEMENT TIME IN HALF

Tight integration between VNX and VMware has greatly simplified storage administration. Previously, Suarez spent significant time working through multiple interfaces, but now he has a holistic view of storage through a single pane of glass. "I can easily access VNX management tools through vSphere," he notes. "That's cut the time I spend on administration in half—from about two hours to one hour per week."

PRIMED FOR CONTINUED GROWTH

As Bit9 + Carbon Black continues to expand its business, Suarez sees EMC playing a key role in helping to sustain ongoing growth.

"EMC is a great partner for a company that's going through such an intense expansion phase," he concludes. "Working with EMC gives us access to many technologies and solutions that will help us cost effectively diversify our capabilities and handle new business demands as they come along."

CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, [contact](#) your local representative or authorized reseller, visit www.emc.com, or explore and compare products in the [EMC Store](#).

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The EMC logo is displayed in white text on a blue rectangular background. The letters 'EMC' are in a bold, serif font, with a small superscript '2' to the right of the 'C'.