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ACCELERATING INNOVATION THROUGH VIRTUALIZATION

VMware IT relies on its own virtualization platform, cloud products and services, as well as other software solutions to gain a competitive edge and better serve its customers.

vmware®

Information Technology | Worldwide

Business needs

Like most global companies, VMware is facing disruptive change. The company continually seeks to use IT to streamline its business operations, improve productivity and sharpen strategic decision-making. When VMware decided to implement SAP HANA as its primary business intelligence platform, its IT team chose Dell EMC XtremIO X2 All-Flash arrays.

Solutions at a glance

- Dell EMC XtremIO X2 and X1 arrays

- VMware software products and solutions

Business results

- Delivers high performance with sub-millisecond latencies on database queries

- Reduces data center costs due to inline deduplication, compression and thin provisioning

- Scales up and out to keep pace with the company's rapid growth

- Simplifies administration, freeing time to work on new projects

86%
savings with thin provisioning

8x
faster replication performance with X2 metadata-aware replication

VMware, which recently celebrated 20 years as an industry pioneer, has transformed the data center by mainstreaming virtualization, the core principle of cloud computing. Today, VMware applies its experience in virtualization and software innovation to advance enterprises' digital infrastructure so they can capitalize on opportunities in areas such as the Internet of Things (IoT) and artificial intelligence (AI).

One of the hallmarks of how VMware operates is that it uses the same technologies it offers to its customers. To ensure that it receives the performance and cost-effectiveness required to efficiently support its IT environment, VMware relies on Dell Technologies including the latest all-flash storage from Dell EMC.

A next-generation storage array for SAP HANA

Data analytics is a key component of VMware's pursuit of innovative solutions. When the IT team deployed SAP HANA to rapidly process massive amounts of real-time data for enhanced decision-making, it turned to Dell EMC's next-generation XtremIO X2 All-Flash arrays.

VMware has two X2 clusters of four X-Bricks in its production data center, with an additional two four-brick X2 clusters at its disaster recovery (DR) site—as well as two clusters of the original XtremIO X1 arrays. The company has allocated 140TB of storage to SAP HANA. With the always-on, inline deduplication and compression of XtremIO X2, SAP HANA is only consuming 40TB of space. That's a 3.5 to 1 data reduction ratio, with an 86 percent savings due to thin provisioning.

"With servers and databases becoming so much more powerful and robust and essential for running the business, storage really needs to respond," says Kandy O'Mara, storage architect for VMware IT. "Dell EMC's XtremIO X2 helps us keep up with the latest technology."

Realistic production testing and simplified admin

VMware replicates the data stored in its SAP HANA database to its DR site. Because XtremIO has writable, high-performance XtremIO virtual copies (XVCs), the IT team can replicate those snapshots to its DR site—and mount and test those in a realistic production environment without affecting production. This has streamlined database updates, necessary fixes and new releases by minimizing surprises once the solutions are put into production.

90 seconds
to clone a 2TB VM

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>
> **Kandy O'Mara**
> Storage Architect, VMware IT

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XtremIO X2 with metadata-aware replication will further speed up the process. In an evaluation, VMware's IT group used Dell EMC RecoverPoint to replicate 18TB of XVC snapshots from one XtremIO to another. The process took approximately eight hours. The team then used the same 18TB database and copied it with X2 metadata-aware replication. This time, the process took only one hour—or eight times faster. And a 2TB VM can be cloned using X2 in as little as 90 seconds.

"XtremIO X2 provides us with a huge time savings," O'Mara observes. "It also removes much of our management overhead, so we can focus on new projects leading to innovative, value-added opportunities for VMware."

More efficient virtualized environment

O'Mara and her team conducted an analysis on all of VMware's ESX nodes in its virtualized production environment, where the company has been consuming 1.2PB of storage. The analysis indicated that VMware could meet its needs with just 280TB of XtremIO X2 storage.

This means that VMware can support its entire production environment with just three racks of XtremIO arrays, rather than three full rows of storage. With the company's global footprint, these savings will be multiplied across target DR sites for each production site.

VMware will also enjoy additional cost savings because it can put staging, dev/test and everything else on the same X2 array—resulting in a better data reduction ratio from

deduplication, compression and thin provisioning. "XtremIO is phenomenal," states O'Mara. "I've been doing this for 20 years, and XtremIO is by far my favorite, especially X2. With its success with SAP HANA, XtremIO X2 is going to be our go-to platform as we refresh our older storage architecture."

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>
> Kandy O'Mara
> Storage Architect, VMware IT

Reduced
3 rows of storage
to just 3 racks
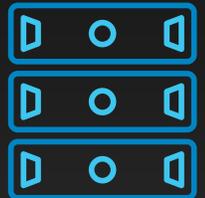
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