

Dell Technologies Cloud Validated Designs

Build hybrid cloud environments with trusted best-of-breed Dell EMC storage, compute, and networking

VALIDATED DESIGNS

Dell EMC and VMware can help you achieve your goals faster, with greater agility and efficiency, while reducing complexity and operational costs.



Rapid time-to-value with pre-tested infrastructure and deployment guidance



Superior performance with independent storage and compute scaling



Leverage existing investments for hybrid cloud environments

Dell Technologies Cloud Validated Designs enable customers to bring cloud to a broader set of workloads that require independent scaling of storage and compute. This new option to consume Dell Technologies Cloud provides deployment guidance for pre-tested Dell EMC storage, compute, and networking infrastructure that's been validated with VMware Cloud Foundation. Using Validated Designs, customers can now support new and legacy workloads that have infrastructure-intensive requirements in the most efficient way possible.

With more solutions coming soon, Validated Designs are now available for Dell EMC Unity XT and PowerMax storage arrays, and PowerEdge MX servers—which have been the backbone of most companies' high-value workloads for the better part of the last three decades.

Solution highlight: Validated Designs for Dell EMC Storage

Customers can now use Validated Designs to build their own hybrid cloud infrastructure, combining the best of software-defined and traditional 3-tier architecture. With more choices, they have deployment flexibility to meet unique external storage-intensive requirements such as the ability to scale storage capacity independent from compute capacity.

Currently, both the enterprise-class, PowerMax, and the versatile mid-range storage system, Unity XT, support Network File System (NFS) as both primary and supplemental storage. Fibre Channel (FC) is available as supplemental storage for workload domains, with support for primary storage coming in Q4 2019.

vmware® Cloud Foundation

NFS: Primary & Supplemental storage
FC: Supplemental storage



Dell EMC PowerMax



Dell EMC Unity XT

Figure 1: Available today - NFS as both primary and supplemental storage and FC as supplemental storage for workload domains

Customer use cases

Ideal for storage-intensive applications

Dell EMC PowerMax and Unity XT storage arrays are ideal for applications with demanding throughput and capacity needs. They are powerful additions to VMware Cloud Foundation environments, delivering the flexibility to scale storage independent of compute for greater performance and application flexibility. In addition, customers can also build new levels of storage resiliency with synchronous replication for disaster recovery from on-premise data centers to multiple sites, for example.

Bring existing storage investments to cloud

Customers can now bring their existing storage investments and data sets to their hybrid cloud environment. This enables them to take advantage of the advanced data services, performance, and capacity that PowerMax and Unity XT delivers.

Automate storage management

Expanding the standard VMware Cloud Foundation license to include the vRealize suite enables customers to use the new vRealize Operations (vRO) plugin for PowerMax. IT Administrators can now take advantage of VMware's deployment tools to rapidly stand up new hybrid cloud environments with attached external storage and execute storage operations such as provisioning storage or scheduling snapshots directly from vRO. In addition, they can also further automate storage management activities by establishing workflows through a self-service portal using vRealize Automation (vRA). This allows administrators to simplify the user experience and deliver a pre-defined catalog of items that users can deploy without prior knowledge of specific storage platforms. Examples of self-service items include:

- High performance storage: Pre-defined storage for workloads that require extremely low latency such as credit card authorizations for retail transactions. Users select pre-configured high performance NVMe storage capacity that offer high read/write performance designed to support OLTP (On Line Transaction Processing) transactional workloads.
- Data warehouse storage: Pre-defined storage for workloads that require large sequential read performance such as business analytics. Users select pre-configured high capacity storage (such as NL-SAS or SATA drives) that offer great sequential read performance supporting large database queries.

Introducing Fibre Channel (FC) storage as primary storage for VMware Cloud Foundation workload domains (available Q4 2019)

Continuing a history of collaboration with VMware, Dell EMC is the first to qualify external FC Storage solutions as primary storage for VMware Cloud Foundation workload domains. The ability to use external FC storage as supplemental storage was made available by VMware in Feb 2019 with VMware Cloud Foundation 3.5.1. The use of FC storage as primary storage in workload domains is in "tech preview"—currently planned for General Availability with VMware Cloud Foundation 3.8.1 by Q4 2019.

VMware Cloud Foundation 3.8.1 will support both FC and NFS storage classes as primary and supplemental storage for workload domains using PowerMax and Unity XT.

Get more information

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