

Dell EMC VPLEX

VPLEX™ delivers continuous data availability, transparent data mobility and non-disruptive data migration for mission-critical applications



VPLEX All Flash

VPLEX Essentials

- With 12,000+ clusters installed worldwide, VPLEX is a trusted and proven availability technology protecting more than 50% of the Global Fortune 500 companies.
- VPLEX delivers high performance for the latest flash storage technology in combination with reduced latency to ensure business critical applications are never down and VPLEX delivers greater than five 9's availability.
- VPLEX enables data and workload mobility across arrays and datacenters without host disruption
- Ansible modules for VPLEX enable operational teams to rapidly provision storage infrastructure with accuracy to respond to the fast-paced needs of application developers
- Find Ansible Modules here: <https://github.com/dell/ansible-vplex>

VPLEX Overview

IT organizations worldwide are rapidly moving to all flash storage to take advantage of the performance, workload consolidation, and the rich data services that lower the total cost of ownership. Nevertheless, availability of business-critical workloads is still a huge challenge. Planned and unplanned downtime continues to cause undesirable disruption to operations with severe business impact.

Dell EMC VPLEX maximizes the returns on investments in all-flash infrastructure or hybrid arrays by providing continuous availability to the business-critical workloads. VPLEX also creates a flexible storage architecture that gives IT teams the agility they need to respond to rapid business and technology changes while maximizing asset utilization across active-active datacenters.

VPLEX enables IT organizations to build datacenter infrastructure that is always available and non-disruptive. VPLEX's unique implementation of distributed cache coherency allows the exact same data to be read/write accessible across two storage systems at the same time. This in turn ensures uptime for business-critical application scenarios and enables seamless data mobility across host arrays without host disruption. The storage systems can be in a single datacenter (VPLEX Local), or separated by distance, (VPLEX Metro).

Here are some of the features that won the trust of IT organizations to deploy it successfully over thousands of datacenters.

- **Flash-optimized:** Performance optimization for all flash arrays, support for thin provisioning space reclamation using UNMAP XCOPY support on all flash
- **Scale-out:** VPLEX scales up to four VPLEX engines in a single cluster that can support multiple all flash storage systems
- **Dedicated:** VPLEX requires no compute resources from the application hosts or on the underlying array to maximize data availability
- **No single point of failure:** All connectivity between VPLEX cluster nodes and across VPLEX Metro configurations is fully redundant, ensuring protection against single points of failure
- **Storage Monitoring and Reporting (M&R):** Storage M&R™ for VPLEX is included with VPLEX systems, providing in depth views of all VPLEX components as well as trending data to visualize and analyze the utilization, capacity, health and performance of the VPLEX system

VPLEX Use Cases

Continuous Availability for Applications

Mission-critical workloads have very low tolerance for downtime and require non-stop operations. There are many factors that can cause applications to go down: power, tech refresh, unexpected failures or human errors. VPLEX gives unmatched protection and availability to applications through automatic failover and failback between arrays and datacenters.

Data Mobility for agile storage management

Today's datacenters are overloaded with data and applications. IT staff are facing huge challenges to frequently adjust and reconfigure their environments, often causing application downtime. Storage that is decoupled from compute gives IT staff much more flexibility to move workloads without host disruption:

- Non-disruptively move virtual server and storage resources within and across datacenters including VMware vMotion and Microsoft Hyper-V Live Migration
- Transparently balance and relocate workloads in anticipation of planned events and maintenance
- A VPLEX enabled data infrastructure shields IT teams from storage activities that cause host disruption, delivering flexibility for IT data management

Technology Refresh made easy

Data migration with VPLEX is performed without application downtime, saving IT teams countless weekends of maintenance downtime and migration service costs. VPLEX accelerates adoption of flash technology, trims migration costs by up to 80% and enables data center modernization that is efficient and non-disruptive.

Datacenter Consolidation and Relocation

For some customers, modernizing data center infrastructure involves moving and consolidating data centers. Migrating hundreds of applications is a daunting task that can stretch to months in implementation. With VPLEX, customers can move petabytes of data non-disruptively and realize the benefits of operating multiple datacenters.

Deep Ecosystem Integration

Server Virtualization and Clustering

With VPLEX the benefits of server virtualization can be extended across datacenters. Virtual machine or application clusters can be stretched across data centers to ensure application uptime even in the event of a complete site failure. Surviving nodes at either of the active-active data centers can continue to run with virtual volume presented by VPLEX.

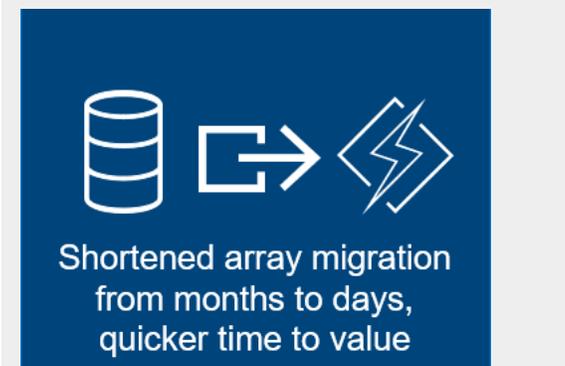
VMware features like vMotion, DRS, High Availability (HA) work seamlessly across active-active data centers giving vAdmins unprecedented control and flexibility for workload deployment. VPLEX supports Microsoft Hyper-V server virtualization deployment as well as Oracle RAC cluster technologies.



Continuous Availability



Data Mobility



Technology Refresh

Storage Monitoring and Reporting (M&R) for VPLEX

Storage M&R for VPLEX is included with all VPLEX systems for monitoring and reporting for just VPLEX. If you want to monitor your entire data center, Dell EMC Storage Resource Manager™ (SRM) manages storage environments in a hybrid cloud environment and generates insights for the IT staff to act on. SRM provides end-to-end visualization, analysis and reporting for your data center.

Integrated Copy Data Management with Dell EMC AppSync

Dell EMC AppSync™ simplifies copy data management across multiple applications and storage systems. With AppSync support for VPLEX, application owners have the flexibility to create copies of production data for various consumption purposes in VPLEX Local and Metro data centers depending on the business requirements.

Storage Provisioning Workflows Made Simple

VPLEX Integrated Array Services (VIAS) drastically simplify workflows like storage provisioning for Dell EMC storage arrays. VPLEX also supports VAAI commands like UNMAP, ATS, XCOPY, and WRITESAME for Dell EMC storage to enable vAdmins to administer various storage level tasks.

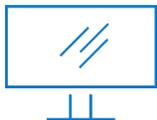
Modernize now with VPLEX

The VPLEX platforms:

- Optimize all flash storage with improved IOPS and reduced latency
- Scale up to four engines with support for up to 12000 volumes on both Local and Metro
- Provide simultaneous read-write access across two arrays or locations locally or over sync distances

VPLEX All Flash

VPLEX for all flash is an all-inclusive solution for Dell EMC all flash storage products: PowerMax™, PowerStore™, VMAX AF™, XtremIO, Dell EMC Unity™ all flash, Unity XT all flash and the SC Series all flash systems. The price of this offering includes software license for unlimited capacity for any number of Dell EMC all-flash arrays.



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