Dell VPLEX

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

VPLEX Essentials

VPLEX delivers high performance for flash storage technology in combination with reduced latency to ensure business critical applications are never down.

Ansible modules for VPLEX enable operational teams to rapidly provision storage infrastructure with accuracy to respond to the fast-paced needs of application developers.



VPLEX Overview

IT organizations worldwide are rapidly moving to all-flash storage to utilizing performance, workload consolidation, and rich data services that lower cost of ownership. However, the availability of business-critical workloads is still a major hurdle. Downtime, planned or otherwise, continues to cause disruption to operations with extreme business impact.

VPLEX maximizes the returns on investments in all-flash or hybrid arrays by providing continuous availability to 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 available and non-disruptive datacenter infrastructure. Its unique implementation of distributed cache coherency allows the same data to be read/write accessible across two storage systems at the same time. This ensures uptime for business-critical application scenarios and enables seamless data mobility across host arrays without host disruption. Your VPLEX configuration can be Local, within your data center, or separated by Metro distance.

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

- 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 its components as well as trending data to visualize and analyze the utilization, capacity, health, and performance of the VPLEX system.
- VPLEX Cluster Server Witness: Witness is installed in a separate failure domain. If a cluster loses contact or if one fails. Prespecified rules determine which cluster continues operations automatically.

VPLEX Use Cases

Continuous Availability - Mission-critical workloads have very low tolerance for downtime and need non-stop action. There are many factors that can cause applications to go down: power, tech refresh, unexpected errors with various causes. VPLEX gives unmatched protection and availability to applications through automatic failover and failback between arrays and datacenters.

Workload Mobility - Today's datacenters are overloaded with data and applications. IT staff are facing huge challenges to 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: Data migration with VPLEX is done with no application downtime, saving IT teams countless weekends of maintenance and migration service costs. VPLEX accelerates flash technology adoption, trims migration costs and enables data center modernization that is efficient and non-disruptive. 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. With VPLEX, customers can move petabytes of data non-disruptively, realizing the true benefits of operating multiple datacenters.

Mission-critical Workload Availability

If your Recovery Point Objective (RPO) and Recovery Time Objective (RTO) equals zero tolerance time, VPLEX is the solution for you. Seamlessly minimize the risk of data loss and application downtime with zero RPO and RTO and automatic site failover. VPLEX delivers true active/active synchronous replication locally or over Metro distance.



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