

# VPLEX ensures uptime for business critical applications

VPLEX delivers continuous data availability and data mobility

## BENEFITS

With 9800+ clusters installed worldwide, Dell EMC VPLEX is a trusted and proven availability technology protecting more than seven nines of availability for more than 50% of Global Fortune 500 companies.

**All-flash Always-On:** Built for the latest flash storage technology, VPLEX VS6 delivers 2X IOPS at 1/3rd the latency to ensure business critical applications are never down.

**Non-disruptive and agile:** VPLEX creates a flexible storage architecture that makes it very easy to respond to changing business needs. VPLEX enables data and workload mobility across arrays and data centers without host disruption.

**Online tech-refresh:** Cut down the time to value for all-flash storage from months to days. VPLEX makes storage tech refresh completely non-disruptive and hassle-free.

**Exclusive offering for Dell EMC flash storage:** VPLEX For All-Flash includes software licenses required to attach unlimited capacity on any number of Dell EMC all-flash flash storage products.

## 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.

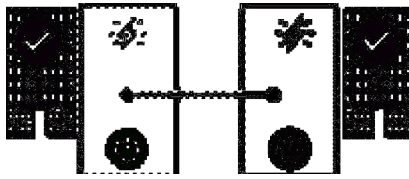
Dell EMC VPLEX maximizes the returns on investments in all-flash infrastructure or hybrid arrays by providing continuous availability to the business critical workloads. VPLEX also creates a flexible storage architecture that gives IT teams the agility they need to respond to rapid business and technology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

VPLEX enables IT organizations to build data center infrastructure that is

- **Always** available even in the face of disasters
- **Agile** in responding to business requirements
- **Non-disruptive** when adopting latest storage technology

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 applications scenarios and enables seamless data mobility across arrays without host disruption. The storage systems can be in a single data center (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 data centers:

- **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 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 configuration 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 indepth views of all VPLEX components with long trends. It is easy to visualize the utilization, capacity, health and performance and to analyze the trends to optimize for best configuration.



Continuous Availability with Active-Active data centers

## VPLEX USE CASES

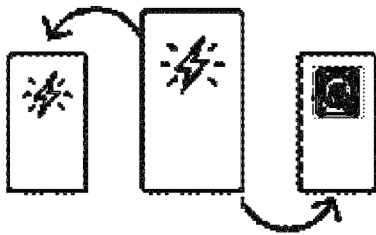
### CONTINUOUS AVAILABILITY FOR APPLICATIONS

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 outages, tech refresh, unexpected failures in the environment 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 faced with a huge challenge to frequently adjust and reconfigure their environments which invariably involves application downtime. Storage that is decoupled from compute gives IT staff much more flexibility to move workloads without host disruption:

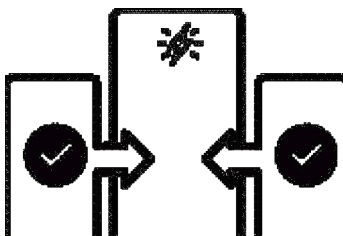
- Non-disruptively move virtual server and storage resources within and across data centers including VMware vMotion and Microsoft Hyper-V Live Migration
- Transparently balance and relocate workloads in anticipation of planned events and maintenance
- A VPLEX enabled data infrastructure shields underlying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



Data mobility across storage tiers or data centers

### TECH REFRESH MADE EASY

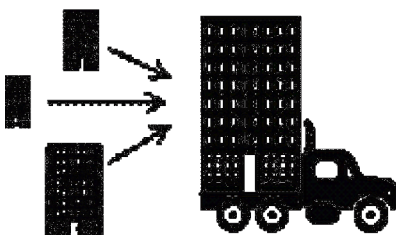
Data migration with VPLEX can be done without any downtime, saving IT teams countless weekends of maintenance downtime and migration service costs. VPLEX accelerates adoption of flash technology, trims migration costs by up to 80% and enables data center modernization that is efficient and non-disruptive.



Accelerated migration to all-flash

### DATA CENTER 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 have moved petabytes of data non-disruptively and realized the flexibility in operating multiple data centers.



Datacenter consolidation and relocation

## **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.

### **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 manage your entire data center, Dell EMC ViPR SRM manages storage environments in a hybrid cloud environment and generates insights for the IT staff to act on. ViPR SRM provides end-to-end visualization, analysis, and reporting for your data center.

### **RECOVERPOINT: ANY POINT IN TIME RECOVERY**

Dell EMC RecoverPoint offers continuous data protection for Dell EMC storage products that ensures operational and disaster recovery to any point in time. Together VPLEX Metro and RecoverPoint enable MetroPoint, a three site configuration that delivers continuous availability and operational recovery at active-active data centers at metro distances as well as long distance disaster recovery for both the active-active data centers with a single DR copy.

### **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 Arrays. VPLEX also supports VAAI commands like UNMAP, ATS, XCOPY, and WRITESAME for XtremIO to enable vAdmins to administer various storage level tasks.

## MODERNIZE NOW

### VS6 PLATFORM AND VPLEX GEOSYNCHRONY

VPLEX VS6 with the latest release of GeoSynchrony, VS6 takes a huge leap in performance and scale compared to VS2:

- Optimized for All-flash storage : 2X IOPS at 1/3rd the latency
- Scalable: Scales up to four engines with support for up to 12000 volumes on both Local and Metro.
- Future-ready architecture: Continued performance improvements with software upgrades. VS2 to VS6 tech refresh is non-disruptive.

GeoSynchrony is the software that powers VPLEX. With the latest release of GeoSynchrony we take full advantage of the VS6 hardware and deliver incredible improvements in many aspects including IOPS, latency and scale. The new VS6 platform also paves the way for continued performance and scale increases with future software releases on the same hardware.

### ALL-INCLUSIVE OFFERING: VPLEX FOR ALL-FLASH

VPLEX For All-Flash is an all-inclusive solution for Dell EMC All-Flash storage products (XtremIO, VMAX All Flash, UNITY All Flash and the SC Series all flash systems). The price of this new offering includes software license for unlimited capacity for any number of Dell EMC all-flash arrays. You can grow your flash environment and utilize VPLEX functionality for continuous availability and data mobility by adding additional engines as needed but without additional software licenses.



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