

EMC VPLEX FOR THE MODERN DATACENTER

Continuous Availability and Agility

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 severe disruption to operations and the cost of downtime keeps increasing with each new workload.

EMC VPLEX maximizes the returns on investments in all-flash infrastructure or hybrid arrays by bringing more than seven nines 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 create datacenter 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 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 that can support multiple all-flash storage systems.
- **Heterogeneous:** With support for more than 70 EMC and third party VPLEX is the most heterogeneous availability and mobility solution.
- **Dedicated:** VPLEX is designed to use every last cycle to maximize availability and therefore it does not consume the compute resources of the underlying storage
- **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.

BENEFITS

With more 8000 clusters installed worldwide, EMC VPLEX is the most trusted availability technology adopted by more than 50% of Global Fortune 500 companies with over an Exabyte of data protected.

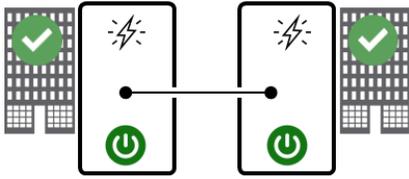
All-flash Always-On: Built for the latest flash storage technology, VPLEX VS6 delivers 2X IOPS at 1/3rd the latency to ensure business critical applications are never down.

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

Online tech-refresh: Cut down the time to value for all-flash storage. VPLEX makes sotrage tech refresh pain less.

Exclusive offering for EMC flash storage: VPLEX For All-Flash includes all the hardware and software licenses required to attach any capacity or number of EMC all-flash flash storage products.

VPLEX USE CASES

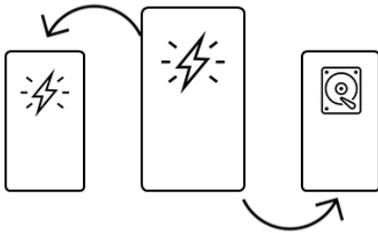


Continuous Availability with Active-Active datacenters

CONTINUOUS AVAILABILITY FOR APPLICATIONS

Business-critical workloads need to be non-stop and have very low tolerance for downtime. There are many reasons why applications can 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. VPLEX currently delivers 7-9s of availability.

FLEXIBLE COPY DATA MANAGEMENT: With simultaneous access to production copy on two datacenters, application owners and storage admins have the flexibility to reuse and repurpose copies of production data on either datacenters depending on the business requirements. For example test and dev teams at multiple locations can have access to the latest production data on both the datacenters. This copy access is further extended to datacenters that beyond metro distance by EMC RecoverPoint integration with VPLEX.

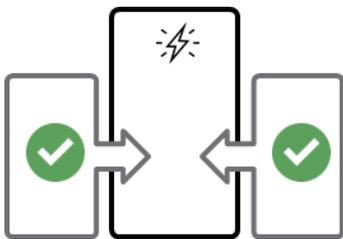


Data mobility across the hybrid cloud

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:

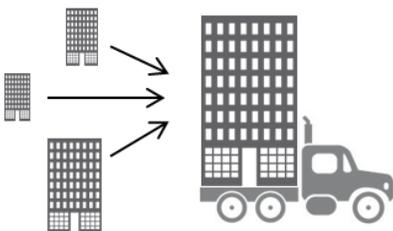
- Non-disruptively move virtual server and storage resources within and across data centers including VMware vMotion and Microsoft Hyper-V Live Migration
- Transparently balance and relocate workloads in anticipation of planned events and maintenance



Accelerated migration to all-flash

TECH REFRESH REIMAGINED

All Flash arrays like XtremIO and VMAX All-Flash enable consolidating multiple tier-1 workloads on to a single platform. This involves a huge data migration effort from one or multiple existing arrays to the new flash system delaying the time to value of the new array to anywhere between 6-9 months. Enter VPLEX, non-disruptive online tech-refresh. Data migration with VPLEX can be done without any downtime, saving I.T 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 datacenter modernization that is efficient and non-disruptive.



Datacenter consolidation and relocation

DATACENTER CONSOLIDATION AND RELOCATION

For some customers, modernizing datacenter infrastructure involves moving and consolidating datacenters. Migrating hundreds of applications is a daunting task that can stretch to months together. With VPLEX, customers have moved petabytes of data non-disruptively and realized the flexibility in 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 datacenters to ensure application uptime even in the event of a complete site failure. Surviving nodes at either of the active-active datacenters can continue to run with virtual volume presented by VPLEX.

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

VIPR SUITE: AUTOMATION AND ADVANCED MANAGEMENT

EMC VIPR Suite is a powerful storage management software to manage heterogeneous storage environments in a hybrid cloud environment through task automation and generate insights for the IT staff to act on. The VIPR Suite provides end-to-end visualization, analysis, and reporting for VPLEX environments. It automates VPLEX provisioning, data migration, and data mobility tasks and enables infrastructure owners consume VPLEX as a service.

RECOVERPOINT: ANY POINT IN TIME RECOVERY

EMC RecoverPoint offers continuous data protection for 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 (A-A) datacenters at metro distances as well as long distance disaster recovery for both the A-A datacenters with a single DR copy.

EMC STORAGE: SIMPLIFIED MANAGEMENT

EMC AppSync simplifies copy data management across multiple applications and storage systems. With AppSync support for VPLEX, application owners have the flexibility to reuse and repurpose copies of production data on either datacenters depending on the business requirements.

VPLEX Integrated Array Services (VIAS) drastically simplify workflows like storage provisioning for 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

INTRODUCING VS6 HARDWARE PLATFORM

VPLEX VS6 with GeoSynchrony 6.0 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.



ALL NEW VPLEX PLATFORM for the most demanding all-flash workloads: VS6

GeoSynchrony is the software that powers VPLEX. With release 6.0 we are introducing a new parallel computing paradigm that takes full advantage of the VS6 hardware to deliver incredible improvements in 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 EMC All-Flash storage products (XtremIO, VMAX All Flash, UNITY All Flash as well as all-flash models of VNX and VNXe families). The price of this new offering includes software license for unlimited capacity for any number of 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.

CONTACT US

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