

EMC VPLEX FAMILY

Transparent information mobility within, across, and between data centers



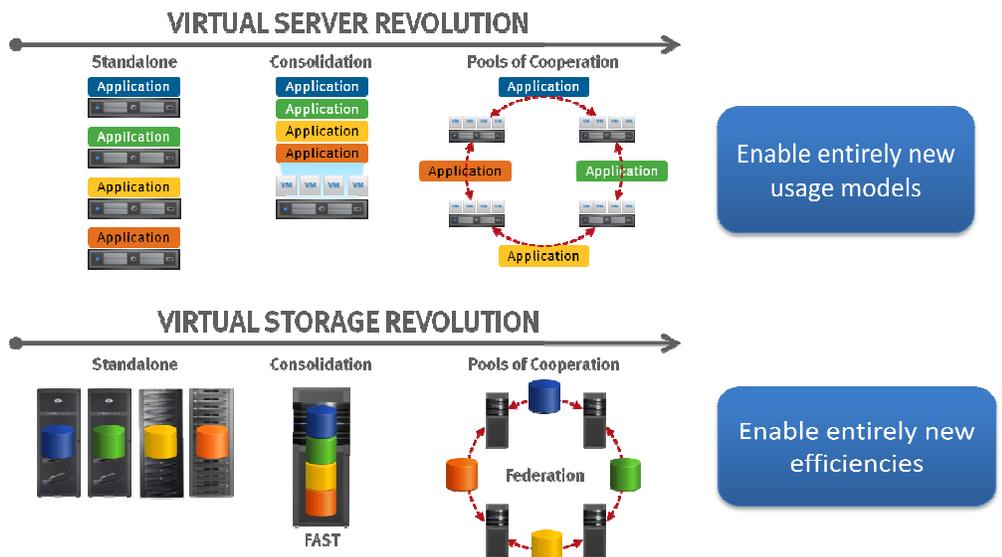
ESSENTIALS

- Leverage Federated AccessAnywhere to share, access, and relocate data over distance
- Start small and grow larger with predictable service levels
- Automate sharing, balancing, and I/O failover
- Migrate and relocate virtual machines, applications, and data
- Increase protection to reduce unplanned application outages
- Implement disaster recovery with RecoverPoint native splitter technology for VPLEX Local and VPLEX Metro
- Transform Active-Passive WAN links to Active-Active connections with RapidPath
- Higher link utilization with RAPIDPath for VPLEX Metro and VPLEX Geo

A STORAGE PLATFORM FOR THE PRIVATE CLOUD

In the past, users have relied on traditional physical storage to meet their information needs. Developments such as server virtualization and the growth of multiple sites throughout a user's network have placed new demands on how storage is managed and how information is accessed.

To keep pace with these new requirements, storage must evolve to deliver new methods of freeing data from a physical device. Storage must be able to connect to virtual environments and still provide automation, integration with existing infrastructure, consumption on demand, security, cost efficiency, availability, and security.



The EMC® VPLEX™ family is the next-generation solution for data mobility and access within, across and between data centers. It is the first platform to deliver Local and Distributed Federation.

- Local Federation provides the transparent cooperation of physical elements within a site.
 - Distributed Federation extends access between two locations across distance.
- VPLEX storage federation provides an extensive offering of new features and functionality for the era of private cloud computing for EMC and non-EMC storage.
- Federated AccessAnywhere™, available with VPLEX, is EMC's breakthrough technology that enables a single copy of data to be shared, accessed, and

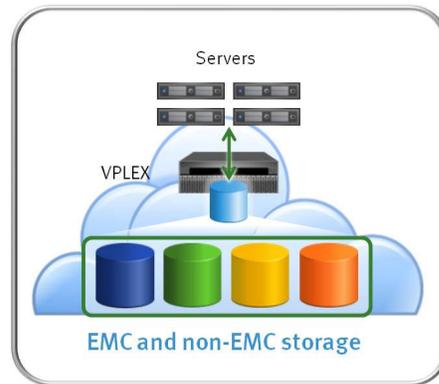
[DATA SHEET](#)

relocated over distance.

- EMC GeoSynchrony™ is the VPLEX operating system.

As VPLEX removes physical barriers and enables users to access a single copy of data at different geographical locations, it also enables geographically stretched virtual or physical host clusters. This enables transparent load sharing between multiple sites while providing the flexibility of relocating workloads between sites in anticipation of planned events. Furthermore, in case of an unplanned event that could cause disruption at one of the data centers, the failed services can be restarted at the surviving site with minimal effort while minimizing time to recovery. In the case of a VPLEX Metro with the optional VPLEX Witness and Cross-Connected configuration, applications will continue to operate in the surviving site with no interruption or downtime.

VPLEX completely changes the way IT is managed and delivered - particularly when deployed with server virtualization. By enabling new models for operating and managing IT, resources can be federated - pooled and made to cooperate through the stack - with the ability to dynamically move applications and data across geographies and service providers. The VPLEX family breaks down technology silos and enables IT to be delivered as a service.



A NEW ARCHITECTURE TO MEET FUTURE REQUIREMENTS

EMC VPLEX introduces a new architecture, which incorporates lessons learned from more than 20 years of expertise in designing, implementing, and perfecting enterprise-class intelligent cache and distributed data protection solutions.

Built on a foundation of scalable and highly available processor engines, EMC VPLEX is designed to seamlessly scale from small to large configurations. VPLEX is an appliance that resides between the servers and heterogeneous storage assets and uses unique clustering architecture that enables servers at multiple data centers to have read/write access to shared block storage devices. Unique characteristics of this architecture include:

- Scale-out clustering hardware which lets you start small and grow big with predictable service levels
- Advance data caching utilizes large-scale SDRAM cache to improve performance and reduce I/O latency and array contention
- Distributed cache coherence for automatic sharing, balancing, and failover of I/O across the cluster

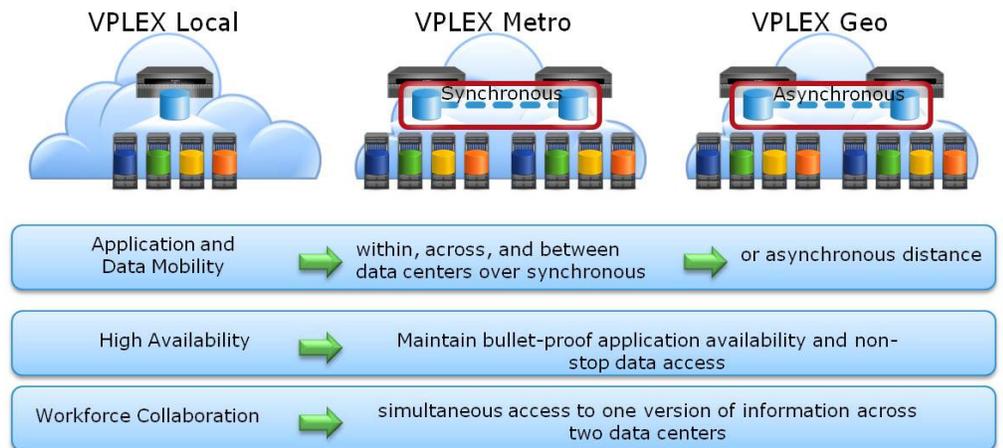
- Resource pooling from multiple data centers, separated either by a few feet within a data center or across synchronous or asynchronous distances, enabling new models of high-availability and workload relocation

With its unique scale-up and scale-out architecture, VPLEX advanced data caching and distributed cache coherency provides workload resiliency, automatic sharing, balancing, and failover of storage domains and enable both local and remote data access with predictable service levels

A SOLUTION FOR ONE OR MULTIPLE DATA CENTERS

The VPLEX family consists of three products: EMC VPLEX Local, EMC VPLEX Metro, and EMC VPLEX Geo

- EMC VPLEX Local delivers local federation, which provides simplified management and non-disruptive data mobility across heterogeneous arrays
- EMC VPLEX Metro delivers distributed federation, which provides data access and mobility between two VPLEX clusters within synchronous distances
- EMC VPLEX Geo delivers data access and mobility between two VPLEX clusters within asynchronous distances



A VPLEX Local configuration is defined by up to four VPLEX engines, which are integrated into a single cluster image through their fully redundant inter-engine fabric interconnections. This cluster's interconnect functionality enables the online addition of VPLEX engines, providing exceptional scalability for all three VPLEX product configurations. All connectivity between VPLEX cluster nodes and across VPLEX Metro and VPLEX Geo configurations is fully redundant, ensuring protection against single points of failure.

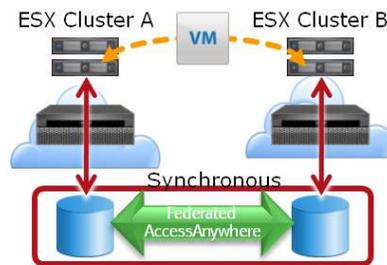
A VPLEX cluster can scale up through the addition of more engines, and scale out by connecting two VPLEX clusters within metro distances for a Metro configuration or two VPLEX clusters connected within asynchronous distances for a Geo configuration. Both VPLEX Metro and VPLEX Geo help transparently move and share workloads - including entire virtual machines - consolidate data centers, and optimize resource utilization across data centers. In addition, it provides non-disruptive data mobility, heterogeneous storage management, and improved application availability. VPLEX Metro supports up to two clusters, which can be in the same data center or at two different sites within synchronous distances.

VPLEX Geo supports up to two clusters at two different sites within asynchronous distances.

At a single or between sites, the VPLEX family improves data and storage resiliency. VPLEX enables you to mirror volumes within and across locations, providing continuous application availability in the event of a disaster. This capability can increase protection and availability for critical applications while leveraging your existing storage resources - without requiring host resources.

VPLEX Metro, in combination with VMware® and vMotion™ over distance, provides a unique capability that enables you to transparently move and relocate virtual machines and their corresponding applications and data over distance.

Enable mobility and relocation between sites



Move and relocated VMs, applications, and data with the support for Distance vMotion

Transparently share and balance resources between data centers

VPLEX Geo, in combination with Microsoft's Hyper-V technology, further extends these capabilities by enabling application and data mobility over longer asynchronous distances (up to 50 ms round-trip latency).

As EMC helps customers build and implement their private clouds, VPLEX will provide the flexibility, availability, and automation to increase data access while simultaneously reducing cost and increasing efficiencies.

CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at www.EMC.com.

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