

# EMC VSPEX PRIVATE CLOUD

## Accelerate Your Journey to Your Cloud with VMware vSphere with Operations Management



### ESSENTIALS

#### Challenges

Design and Implement well-performing and scalable Private Cloud that increase VM availability and operational efficiency while lowering Total Cost of Ownership

#### The Solution

VSPEX consolidates and virtualizes servers while addressing user SLAs, lowering costs and simplifying overall management.

#### Simple

Reference Architectures with ease of management at every level

#### Efficient

Streamlined infrastructure including VM Management, storage and backup deduplication.

#### Flexible

Scalable Reference Architectures that provide flexibility with support for industry leading virtualization, server and networking technologies.

### THE CHALLENGE: BUILDING A PRIVATE CLOUD

IT is at a breaking point. Companies are spending over 70% of IT budgets on infrastructure maintenance, leaving little room for innovation. Yet, these same departments are under pressure to maximize efficiency and reduce costs while increasing IT agility and helping drive business revenue. Cloud computing is revolutionizing the IT process by making it possible to run IT as a service and drive maximum efficiency and agility.

### THE SOLUTION: VSPEX PRIVATE CLOUD

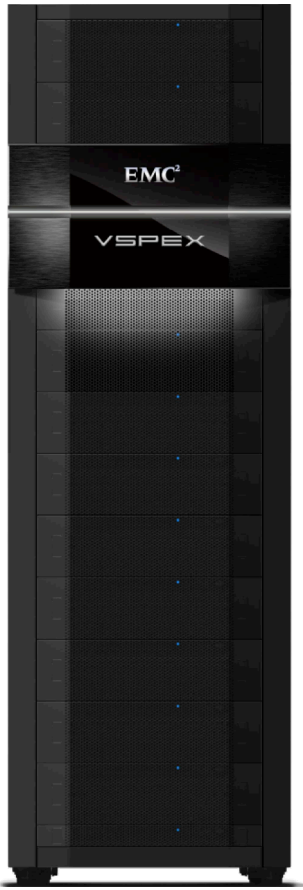
EMC has joined forces with the industry's leading providers of IT infrastructure to create a complete virtualization solution that accelerates deployment of private cloud. Built with best-of-breed technologies and anchored by EMC VNX storage and EMC backup, VSPEX enables faster deployment, more simplicity, greater choice, higher efficiency, and lower risk. Validation by EMC ensures predictable performance and enables customers to select technology that leverages their existing IT infrastructure while eliminating planning, sizing, and configuration burdens.

### SIMPLE: PROVEN BY EMC DELIVERED BY PARTNERS

VSPEX eliminates the concerns of puzzling together a complete virtual infrastructure by providing guidance on the components that have been tested to be compatible and that are proven to scale to deliver the performance your business requires. EMC's technology alliances with the leading hypervisors from Microsoft and VMware make managing and monitoring your private cloud's EMC VNX storage and EMC backup simpler.

VMware vSphere with Operations Management offers the most trusted virtualization platform with intelligent operations, enabling businesses of all sizes to run applications at high service levels and maximize hardware investments. vSphere with Operations Management empowers IT departments by delivering availability and performance for business critical applications, proactively identifying and remediating emerging performance issues, and optimizing resource utilization through a unified console. Capabilities include:

- Capacity Management – helps identify idle and over-provisioned VMs to reclaim excess capacity and increase VM density without impacting performance
- Predictive Analytics – analyzes performance data, establishes dynamic thresholds that adapt to the environment, and provides Smart Alerts about health degradations and performance bottlenecks to drive proactive action and policy based automation
- Operations Console – displays key performance indications in easily identifiable colored badges and provides a comprehensive view into what is driving current and potential future performance and capacity management



## 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](http://www.EMC.com).

[www.EMC.com](http://www.EMC.com)  
[www.emc.com/vspex](http://www.emc.com/vspex)

## EFFICIENT: STREAMLINE OPERATIONS

VSPEX enables Administrators to become more efficient, productive and able to spend time planning rather than reacting by eliminating the many standalone physical servers and pockets of storage by transforming your environment from isolated and costly physical systems to fast, efficient and easy to manage virtual systems that leverage EMC storage & backup optimized for virtualization.

The next generation of VNX upon which VSPEX are architected to deliver greater efficiency, performance, and scale than ever before. The new VNX series has been re-architected from the ground up in a clean sheet design. The new architecture unleashes the power of all the VNX's Intel Multi-Cores in a system optimized to distribute all services across all cores in a uniform manner delivering up to 4x the performance of its predecessor. This Multi-Core design means that the VNX Series delivers FLASH 1st at scale, with more firepower, using the latest Intel multi-core technology, along with the software to take advantage of the increased horsepower.

VSPEX with VNX is a FLASH optimized hybrid array with Active/Active Service Processors that provides automated tiering to deliver the utmost performance to that data that requires it the most while intelligently moving less frequently accessed data to lower cost disk. In this hybrid approach a very small percentage of flash drives in the overall system can provide a very high percentage of the overall IOPS ensuring that customers never have to make concessions for cost or performance. FAST Cache dynamically absorbs unpredicted spikes in system workloads. As that data ages and becomes less active over time, FAST VP tiers the data from high-performance to high-capacity drives automatically, based on customer-defined policies.

EMC backup and recovery solutions—EMC Avamar and Data Domain—allow you to deploy an open, module protection storage architecture with VSPEX that delivers the confidence to accelerate your deployment. Our solutions are proven to reduce backup times by 90%, speed recoveries by 30x and offer instant VM access for worry-free protection. And our backup appliances add another layer of assurance, with end-to-end verification and self-healing for ensured recovery. Our solutions also deliver big saving. With industry-leading deduplication, you can reduce backup storage by 10-30x, backup management time by 81%, and WAN bandwidth by 99% for efficient DR—delivering a 7-month payback on average. You'll be able to scale simply and efficiently as your environment grows. For smaller VMware-based deployments, VSPEX offers VMware vSphere Data Protection (VDP) Advanced. VDP Advanced is powered by EMC Avamar technology. So you'll get the benefits of Avamar's fast, efficient image-level backup and recovery combined for reliable protection.

## FLEXIBLE: PROVEN INTEGRATION

VSPEX solves the challenges many customers experience when building a private cloud by delivering solutions packaged as reference architectures that eliminate the burdens of planning and sizing exercises and that will scale and deliver the performance you need.

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