

## EMC VSPEX powered by Bull

### Converged infrastructures for large virtual server environments

The faster the world changes, the greater becomes the need for businesses to respond and act quickly. Capitalizing on its expertise in EMC technologies and VMware based server infrastructures, Bull participates to the EMC VSPEX program that accelerates the path to complete IT virtualization and addresses the three distinct phases required by large enterprises to build their future private cloud. Phase 1 is characterized by identifying a server virtualization solution that will reduce cost and operating expenses. In phase 2, the focus shifts to virtualizing mission-critical applications while ensuring application availability and improving SLAs. Phase 3 focuses on delivering Business agility through increased emphasis on end-to-end automation and delivering IT as a Service.

#### Pre-validated infrastructure stacks designed by Bull and EMC

VSPEX solutions are designed to scale as your business grows. Built to provide a simple, efficient, and flexible infrastructure stack, VSPEX solutions come in various modular configurations to meet the needs of your business and enable faster deployment, architecture choices, greater efficiency, and lower risk. Bull has integrated its bullion business critical server into the VSPEX architecture, along with the EMC VNX storage and Brocade VDX switches.

#### A strong Bull EMC partnership since 20 years

Bull has capitalized on its expertise in EMC technologies and VMware based server infrastructures, and through EMC's VSPEX program ensures the integration and alignment of hypervisor, compute, network, and storage components for a wide-range of application workloads through a series of Reference Technical Architectures (RTAs) and deployment guides. Bull's participation in EMC's VSPEX program is the latest step in a relationship that stretches back almost 20 years. Bull's Storage and Virtualization Competence center based in Grenoble France has worked with EMC's engineering teams in Hopkinton US to deliver the first of a series of new RAs that will triple the number of VMware Virtual Machines supported

through the use of Bull's bullion server technology.

#### Bull's bullion servers, specifically designed for business

A key part of the VSPEX architecture, Bull's bullion servers have been designed and developed by Bull with a desire to meet organizations' most fundamental needs for a stable infrastructure, high availability and flexibility. Bull's bullion servers are innovative and different: it's very DNA is built around an environmentally responsible approach. Europe's largest team of experts specializing in the design and implementation of critical systems has been fully involved in its creation.

#### EMC VSPEX powered by Bull

##### Simplicity

- Single pane of glass management
- Deploy hundreds of virtual machines from templates
- Transparency to storage with tight API integrations
- Simple provisioning wizards
- vCenter discovery

##### Efficiency

- Set it and forget it storage policies with SDRS
- Unified storage in a single platform
- Thin provisioned storage on demand

##### Flexibility

- Flexible choices in compute, network, storage and backup
- Add enterprise Flash drives to storage for FLASH Cache benefits

STOREWAY PARTNERS



EMC Unified Best Partner of the year 2012, EMEA  
EMC Best Partner of the Year 2012, France



Architect of an Open World™

# Proven architectures designed by Bull & EMC

VSPEX pre-validated and modular architectures are built with proven best-of-breed technologies to create complete virtualization solutions that enable you to make the right choices in the hypervisor, compute and networking layers. VSPEX eliminates server virtualization planning and configuration burdens. VSPEX powered by Bull, takes the most from Bull's bullion servers, EMC VNX series storage, Brocade VDX switches and VMware vSphere5.



## Bull's bullion servers

Based on a modular architecture, and natively embedding the VMware ESXi virtualization hypervisor, Bull's bullion servers are the answer to enabling IT departments to consolidate Xeon-based business applications while providing reliability and simplicity. Bull's bullion servers possess all the required attributes: hardware failure isolation with no impact on production, firmware upgrades on the fly, and a maintenance processor for remote control. Its modular architecture of up to four building blocks of 3U each, together with native virtualization, provides optimum flexibility. Moreover, its magnitude of system resources is unequalled for scalable infrastructure deployment, especially for Windows business applications. True expandability and scalability become reality.

## EMC VNX series

The EMC VNX™ family is optimized for virtual applications delivering industry-leading innovation and enterprise capabilities for file, block, and object storage in a scalable, easy-to-use solution. This next-generation storage platform combines powerful and flexible hardware with advanced efficiency, management, and protection software to meet the demanding needs of today's enterprises. The VNX series is powered by Intel Xeon processor, for intelligent storage that automatically and efficiently scales in performance, while ensuring data integrity and security. The VNX series is purpose-built for the IT manager in smaller environments and the VNX series is designed to meet the high-performance, high-scalability requirements of midsize and large enterprises.

## Brocade VDX Switches

Brocade® VDX switches give the flexibility and ability to scale the network to meet evolving virtualization needs. The result is fast, dependable network connectivity between servers for optimal performance in a virtualized environment. Brocade VCS™ Fabric technology enables organizations to build data center Ethernet fabrics—revolutionizing the design of Layer 2 networks and providing an intelligent foundation for cloud-optimized data centers.

## VMware vSphere 5

VMware vSphere 5 transforms a computer's physical resources, by virtualizing the CPU, RAM, hard disk, and network controller. This transformation creates fully functional virtual machines that run isolated and encapsulated operating systems and applications just like physical computers. The high-availability features of VMware vSphere 5 such as vMotion and Storage vMotion enable seamless migration of virtual machines and stored files from one vSphere server to another with minimal or no performance impact. Coupled with vSphere DRS and Storage DRS, virtual machines have access to the appropriate resources at any point in time through load balancing of compute and storage resources.

## EMC Virtual Storage Integrator for VMware vSphere

EMC Virtual Storage Integrator (VSI) for VMware vSphere is a plug-in to the vSphere client that provides a single management interface that is used for managing EMC storage within the vSphere environment. Features can be

added and removed from VSI independently, which provides flexibility for customizing VSI user environments. Features are managed by using the VSI Feature Manager. VSI provides a unified user experience, which allows new features to be introduced rapidly in response to changing customer requirements. The following features were used during the validation testing:

- **Storage Viewer (SV)** – Extends the vSphere client to facilitate the discovery and identification of EMC VNX storage devices.
- **Unified Storage Management** – Simplifies storage administration of the EMC VNX unified storage platform.

## Bull, a European leader in mission-critical digital systems

Effectively combining processing power and security, Bull designs, implements and runs internationally renowned solutions for public and private sector organizations alike, that transform information systems into positive drivers for excellence, differentiation and value-creation. As a trusted business partner, Bull helps its customers seize all the opportunities of the digital revolution, while managing its inherent risks.

For more information, contact your sales representative or:  
[storeway\\_contact@marketing.bull.net](mailto:storeway_contact@marketing.bull.net)