

*Product Brief*

# EMC VNXe: Enterprise Features, Entry-level Simplicity

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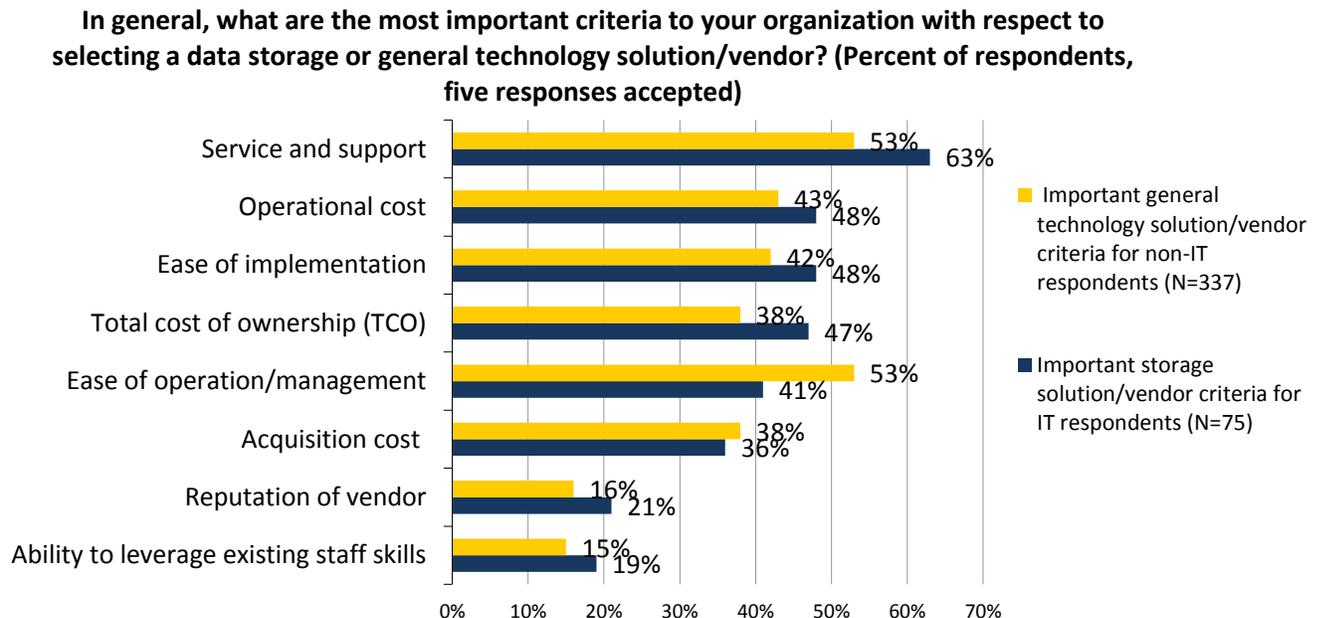
**Abstract:** *The need for advanced IT capabilities isn't limited to big companies. Competent IT is an important philosophy these days, and organizations of all sizes are coming to depend on the functional capability, good economic value, and the competitive advantage that technology can provide. EMC's new VNXe provides functional capabilities typically found in larger, enterprise-class arrays, but for an entry-level price.*

## Overview

SMBs and enterprise branch offices have less sophisticated operations and a smaller support staff than enterprise datacenters, but they can still use technology to drive efficiencies that ultimately lead to business benefits such as cost savings or increased revenues. When ESG surveyed 412 SMB IT and business professionals in 2013, only 18% of those surveyed cited that IT professionals are the technology decision makers, while 82% depend on business pros (everyone from corporate executives to office managers, as referred to in this brief as “non-IT respondents”) for technology decisions. In fact, of the groups that cited non-IT respondents as the decision makers, half of them indicated that their organizations do not employ a single dedicated IT professional.<sup>1</sup>

What criteria do these non-technical decision makers consider when evaluating general-technology or storage-specific vendors and solutions?

Figure 1. Top Eight Most Important Criteria for Selecting Storage or General Technology Solution/Vendor



Source: Enterprise Strategy Group, 2014.

As seen in Figure 1, service and support is the most commonly cited purchase decision criterion for both IT respondents when buying storage infrastructure (63%) and non-IT respondents when considering general technology (53%), including data storage solutions. The fact that nearly half of IT respondents identify TCO as an important storage selection criterion in spite of storage system costs being one of the most commonly cited SMB storage challenges clearly demonstrates that even SMB organizations are willing to make the initial upfront investments to increase efficiency and cost savings in the long run. We see similar trends in remote office and branch office sites.

<sup>1</sup> Source: ESG Research Report, [SMB Storage Market Trends](#), April 2013. All ESG research references and charts in this brief are from this report.

## VNXe 3200 Meets Midmarket Requirements

Setup, ongoing management, and integration with virtualization tools are key to providing value in the storage solution. EMC has invested significantly here to ensure the VNXe 3200 meets these requirements.

- **A variety of support options.** Users have many preferences when it comes to support and troubleshooting. And EMC has many support options, such as how-to videos, online training (via videos and slideshows), community forums, a searchable support information repository, and EMC's proactive phone home support.
- **Ease of set up and management.** EMC has refreshed the VNXe management tool, Unisphere, with this release. It provides a simple user interface to perform all block- and file-oriented operations, from creating LUNs and LUN groups to file systems and even VMware datastores (both NFS and VMFS). EMC claims that users can set up a SAN or NAS in under 15 minutes, and after spending time on the Unisphere [demo](#), ESG finds that it lives up to the hype, making it easy for a layman to add and manage storage.
- **Cost containment.** With the rapid growth of data that every IT organization is struggling to manage, this is tricky yet increasingly important. Again, this is where VNXe benefits from the work EMC has done across other product lines. It has an extremely well-rounded feature set for this market segment, including:
  - **Autotiering.** The hybrid nature of the VNXe architecture combined with Fully Automated Storage Tiering (FAST) ensures active data stays on fast flash storage, while older data is automatically migrated to denser and less expensive disk media.
  - **File deduplication.** VNXe uses single instance storage to deduplicate files that have not been changed in a 15-day timeline.
  - **Thin provisioning.** This allows virtual provisioning of storage, in which the server "thinks" it has capacity provided up front, but the capacity is not really consumed by the storage system until it is actually used.
- **Support for multiple protocols.** Unified storage takes away the need for a "crystal ball" to predict how much capacity may be needed in the future to support block (iSCSI or fibre channel) and file (NFS, CIFS, SMB3, or VMFS) storage requirements. Moreover, it means standardizing on tools for provisioning, protection, and ongoing management regardless of the storage protocol required. VNXe supports all of these protocols and is one of the few entry/midmarket arrays to support fibre channel connectivity.
- **Integration with popular server and desktop virtualization tools.** EMC has deeply integrated VNX and Unisphere into VMware and Microsoft virtual server environments via available API sets, including VASA, VAAI, ESA, and VSI on the VMware front, and SMB3, ODX, ESI, and NPIV on the Microsoft front. This provides users an end-to-end view of the server/storage environment, helping quickly troubleshoot issues and speeding time to resolution. On the VDI front, the VNXe 3200 supports Citrix, Microsoft, and VMware.
- **Data protection and availability.** VNXe has the expected RAID and hot spare technology, but this release adds some interesting capabilities such as support for the new EMC VPLEX Virtual Edition, which targets iSCSI/ESX environments and allows users to stretch VMware live migrations and vMotions, enabling VMHA and VMF across two sites. It's a powerful capability that can extend the availability features of the VNXe.
- **Support for the unpredictable performance of virtualized environments.** Virtual server and desktop environments put unpredictable demands on the storage environment, and without storage professionals to tune the system, managing performance is difficult. Here, the system benefits from the hybrid architecture, using SSD to buffer unpredictable workloads so they don't impact the broader storage environment.

## The Bigger Truth

EMC is the 800lb gorilla in the storage space and the VNXe line benefits from EMC's storage engineering talent. While EMC has nailed it on important features like ease of use and efficiency, this initial release is lacking block-level deduplication and remote mirroring (although many SMB's prefer application and virtualization-based replication technology over array-based replication). Given EMC's deep pockets and breadth of storage technology and talent, these features can likely be expected soon, and new products like VPLEX/VE and Data Domain can fill some of the high availability gaps in the meantime. Overall, VNXe provides a good deal of the functional capability, good economic value, and competitive advantage that is typically found in larger, enterprise-class arrays, but for an entry-level price.