EMC VNX SERIES FUNCTIONAL SOFTWARE

Boost application performance, protect critical information, and reduce storage costs with comprehensive software from EMC

HIGHLIGHTS

- VNX Software Essentials Pack combines the most requested VNX software functionality
- Optimize SLAs for both the lowest cost and the highest application performance automatically
- Enforce retention at the file-level for compliance
- Recover and repurpose applications locally and remotely
- Manage Microsoft Exchange, SQL Server, Oracle Database, VMware and File application copies
- Administer VNX software and hardware via Unisphere™
- Enforce security with data at rest encryption
- Provide VNX analytics through vRealize Operations Manager

THE INDUSTRY'S MOST EXTENSIVE SOFTWARE OFFERINGS

The VNX series offers the most comprehensive software functionality to ensure customers have all of the necessary capabilities to protect and manage their information. Based on customer feedback, EMC created the VNX Software Essentials Pack. It incorporates VNX's most requested software features into one cost effective package. It includes the ability to dynamically move data for storage efficiencies while providing performance increase to applications. It also delivers remote and local replication to ensure you data is protected along with insuring your data is protected from malicious activity, and much more.

VNX SOFTWARE ESSENTIALS PACK INCLUDES:

- FAST (Fully Automated Storage Tiering)—automatically optimize for the highest system performance and the lowest storage cost simultaneously.
- VNX Events and Retention—Keep data safe from changes and deletions.
- Local Protection—Practice safe data protection and repurposing.
- Remote Protection Functionality—Protect data against localized failures, outages, and disasters.
- Hypervisor-based replication—Fifteen VM licenses for RecoverPoint for Virtual Machines—Delivers local and remote hypervisor-based replication
- Continuous Data Availability—Five VPLEX-VE Licenses - Enables continuous data availability for VMware ESXi environments.

REDEFINE

DATA SHEET

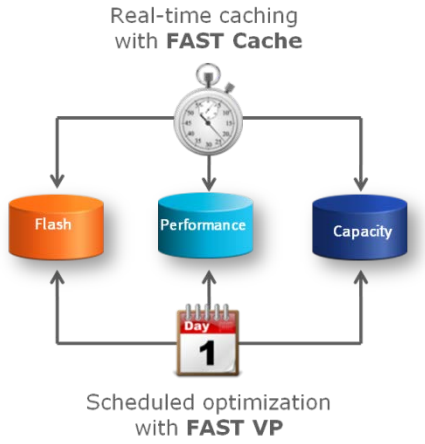
EMC²

STANDARD SOFTWARE FUNCTIONLAITY

- Base Software – Includes the VNX (OE) Operating Environment for file and block, access protocols for: (CIFS, NFS, pNFS, FC, FCoE, iSCSI, SMB3), Thin Provisioning, Fixed Block Deduplication, File Deduplication (File Single Instance), Block & File Compression and SAN Copy for block migration.
- Unisphere Management — Unified storage management platform for the VNX series that provides intuitive user interfaces with a task-oriented approach. It offers monitoring and reporting on performance and capacity trending capabilities for VNX storage systems. Unisphere also monitors the health, alerts and performance of large numbers of VNXe and VNX systems across a central console.

ADDITIONAL SOFTWARE

- Data at Rest Encryption—not part of any VNX software Essentials pack; VNX offers controller based data at rest encryption (D@RE).
- EMC Storage Analytics—not part of any VNX software Essentials pack; this delivers the storage-only features and functionality of VMware vRealize Operations Manager.
- Application Protection — EMC AppSync software automates application copies.



Set-it-and-forget-it performance optimization for application workloads

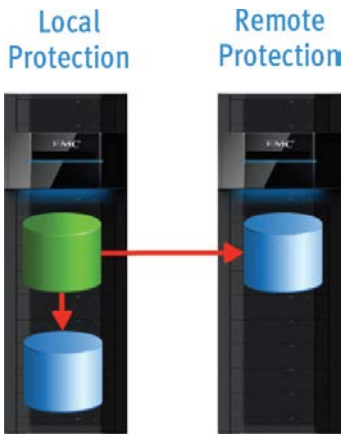
FAST (FULLY AUTOMATED STORAGE TIERING)

The FAST improves performance and maximizes storage efficiency by enabling customers to deploy a Hybrid Flash strategy. Using FAST and the right amount of Flash drives for the workload, Hybrid Flash lowers storage costs and delivers higher performance levels for your most important applications by automatically tiering and serving data from the most cost-effective drive type, based on the data's need. Customers define how and when data is tiered using policies that dynamically move active data to high-performance drives, and less active data to high-capacity drives. For inconsistent, high-demand workloads, an extendable cache of up to 4.2 terabytes ensures that data is served from the highest performing Flash drives for as long as needed. With a Hybrid Flash strategy, customers can have Flash performance at the cost of disk.

VNX EVENTS AND RETENTION

The VNX Events and Retention helps customers ensure that data is protected from unwanted changes and deletions. It maintains data confidentiality for selected data at rest and enforces retention at the file-level to meet compliance requirements and integrates with third-party, anti-virus checking, quota management, and auditing applications for added data protection, security, and peace of mind.

LOCAL PROTECTION



Local copies for instant recovery and repurposing
Immediate disaster recovery at a remote site or restore back to production

Practice safe data protection and repurposing with the Local Protection. This software gives customers any point-in-time recovery with DVR-like roll-back capabilities for business continuity on block-based storage, allowing recovery of production applications with minimal data exposure. Application owners can tune recovery point objectives based on the criticality of data, and perform faster recovery through self-service capabilities. Local Protection also create point-in-time copies to instantly restore production data residing on file and block-based storage as well as use production copies for development, testing, decision support tools, reporting, and point-in-time backups.

REMOTE PROTECTION

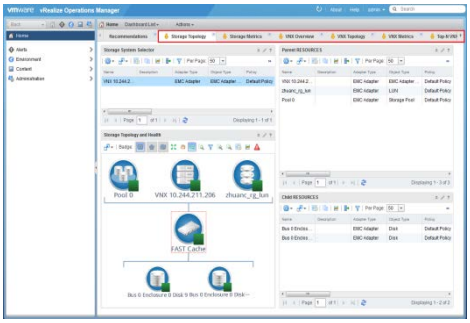
The Remote Protection offers protection against localized failures, outages, and disasters. It lets customers deliver disaster recovery protection for any host and any application on block-based or file-based storage—without compromise—and with immediate DVR-like rollback to a point-in-time. Additional capabilities include compression and deduplication for WAN bandwidth reduction and application-specific recovery point objectives. Replication options are available for “many to one” fan-in replication for centralized backup operations, as well as “one-to-many” disaster recovery configurations.

DATA AT REST ENCRYPTION (D@RE)

EMC VNX Data-At-Rest-Encryption (D@RE) uses a controller based encryption method to encrypt all data written to disk, protecting data access against unauthorized drive removal (lost or stolen drives). In some cases D@RE can eliminate the need for data erasure services.

APPLICATION PROTECTION

EMC AppSync automates application-consistent copies of Microsoft® Exchange, SQL Server®, Oracle Database, VMware data stores and Filesystems, and provides recovery based on defined service levels. It provides user roles that enable self-service protection, while improving visibility for all application recovery points. Alerts are generated automatically, enabling fast resolution for recovery gaps.



EMC STORAGE ANALYTICS (ESA)

EMC Storage Analytics solution delivers a single, end-to end view of virtualized infrastructures (servers to storage) powered by VMware® vRealize™ Operations analytics engine. Optimize performance and diagnose issues across physical storage and virtual machines with EMC Storage Analytics (ESA). This software lets you extend VMware vRealize Operations analytics to supported EMC storage platforms. Out-of-the box custom visualizations and health indicators (badges) help you quickly deploy EMC infrastructure support within vRealize Operations Manager. Dashboards, heat maps, and other visual tools provide deep visibility into your EMC infrastructure. Actionable capacity and performance analysis help you troubleshoot, identify, and act on issues fast. Whether you are a storage administrator or a VMware administrator, you can get the view you need.

VNX SOFTWARE ESSENTIALS PACK

The VNX Software Essentials Pack includes VNX's most customer requested software features into one cost effective package

- FAST: FAST VP and FAST Cache
- Events and Retention: File Level Retention, Common Event Enabler (CEE) – Common Anti-Virus Agent and Common Event Publishing Agent
- Local Protection: SnapSure, SnapView, VNX Snapshots, RecoverPoint SE Local Replication
- Remote Protection: Replicator, MirrorView A/S, RecoverPoint SE Remote Replication – *Plus* 15 VM licenses for RecoverPoint for Virtual Machines & 5 VPLEX-VE Licenses included

OTHER VNX SOFTWARE PACKS

VNX also offers the following SW Packs:

- VNX Total Protection Pack: Includes Remote & Local Replication plus Application Protection
- VNX Total Efficiency Pack: Includes Total Protection Pack, plus FAST and VNX Events and Retention functionality

CURRENT EMC VNX SOFTWARE OFFERINGS

VNX SOFTWARE	
VNX SOFTWARE ESSENTIALS PACK	**FAST (Fully automated Storage Tiering)** FAST Cache - Extends cache for performance boost FAST VP - Dynamic data tiering across drives type to constantly balance performance and cost
	VNX Events and Retention File Level Retention (WORM) to keep data safe from changes and deletions Common Event Enabler – Integration with market leading Anti-virus agents and data quota tools
	Local Protection RecoverPoint SE (Local) - DVR-like recovery for block storage VNX Snapshots / SnapView - Block storage snaps and clones SnapSure - File system snaps
	Remote Protection RecoverPoint SE - Unified storage replication with DVR-like recovery MirrorView – Native block based storage replication Replicator – Native granular file system level replication and recovery RecoverPoint for Virtual Machines – Delivers local and remote hypervisor-based replication (15 VM licenses) VPLEX-VE - Enables continuous data availability for VMware ESXi environments (5 Licenses)
OTHER VNX SOFTWARE	**Application Protection** AppSync - Automate application copies for Microsoft® Exchange, SQL Server®, Oracle Database, VMware data stores and Filesystems
	Data at Rest Encryption D@RE - Controller based data at rest encryption to enforce security
	Analytics Storage Analytics with VMware vRealize Operations Manager

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 the EMC Store

EMC, FAST, Unisphere, VPLEX, VNXe and the EMC logo are registered trademarks or trademarks of EMC Corporation in the United States and other countries. VMware, ESX, Horizon View, and vCenter are registered trademarks or trademarks of VMware, Inc., in the United States and other jurisdictions. © Copyright 2010, 2013, 2015 EMC Corporation. All rights reserved. Published in the USA. 07/15 Data Sheet H8509.14

EMC believes the information in this document is accurate as of its publication date. The information is subject to change without notice.