

EMC UNISPHERE

Redefining simplicity in the entry-level and midrange storage markets

ESSENTIALS

Unified management

- Common experience for file, block, object, and replication
- Simplified management via application-aware wizards
- Single sign-on for all devices in a management domain
- Keep pace with data growth and manage critical business information more strategically

Enhanced management, intuitive navigation, and customization

- Dashboards for at-a-glance view and reporting
- Intuitive, application context-based approach to managing storage
- Customized views to meet business needs

Centralized management for all your data protection and efficiency needs

- Automated Storage Tiering ensures data is stored at the right tier to meet performance and cost service levels
- Storage software suites and value packs

Industry-leading virtualization integration

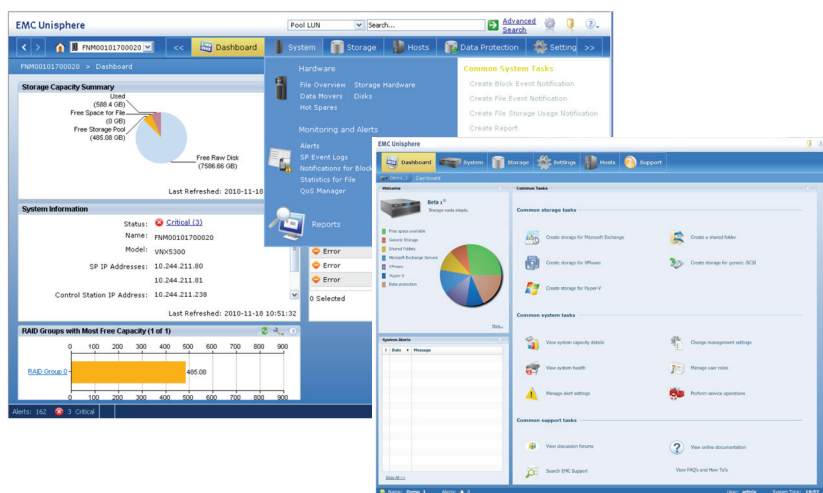
- Physical and virtual visibility for both storage and virtual infrastructure administrators
- Integrated views for storage and virtual machine relationships available in Unisphere and VMware vCenter
- Intelligent offload of VMware vSphere operations to the array to accelerate VMware storage tasks
- Best practice provisioning wizards for virtualized infrastructures

UNIFIED MANAGEMENT

EMC® Unisphere™ is the next-generation unified storage management platform that provides intuitive user interfaces for the newest range of unified platforms including the EMC VNX® and EMC VNXe® series. Unisphere continues to support existing EMC CLARiiON®, EMC Celerra®, and EMC RecoverPoint SE systems. Unisphere's approach to storage management fosters simplicity, flexibility, self-help, and automation—all key requirements for the journey to the cloud. Unisphere can be customized to the needs of a mid-size company, a department within large enterprises, or a smaller remote office/branch office type environment. With Unisphere's pluggable architecture, it is easily extensible and continues its seamless support for additional EMC offerings, including integration with data protection and security solutions.

Unisphere has many unique capabilities that radically simplify mid-tier and entry-level systems management:

- Single sign-on automatically discovers all VNX, CLARiiON, Celerra, and RecoverPoint SE systems in the environment.
- Unisphere Remote provides centralized multi-box monitoring for hundreds of VNXe systems deployed in remote and branch offices.
- The dashboard is a single screen for at-a-glance management; using the dashboard, administrators gain instant and actionable knowledge about what's going on across their virtualized and physical infrastructures.
- Unisphere enables administrators to drill down and troubleshoot the most critical issues from a single view.
- Ease of use helps administrators improve IT staff productivity by reducing the amount of time spent on critical storage administrative tasks.



ESSENTIALS (continued)

Self-service support ecosystem

- Single-click access to online support ecosystem and customer community
- Direct access to EMC-assisted support resources

ENHANCED MANAGEMENT, INTUITIVE NAVIGATION, AND CUSTOMIZATION

Unisphere provides simple unified management capabilities for the storage specialist or the IT generalist with less storage expertise. It provides a task-oriented management approach that is either web-based for ease of use or a standalone application for large environments with increased security and control requirements. Whichever approach is chosen, the experience is identical, dramatically reducing time to results and learning curves. Users can easily manage storage tasks like creating storage for an application, monitoring and managing that storage, or even provisioning storage for hundreds of Microsoft Exchange mailboxes.

Unisphere provides easy-to-use wizards and further simplified menus and has even fewer clicks to manage daily tasks across the VNX series and legacy storage systems (CLARiiON and Celerra). It provides an intuitive, context-based approach to configuring storage, creating replicas, monitoring the environment, and managing host connections.

By displaying information in tables, Unisphere enables users to manipulate the data in ways they are familiar with. For example, you can sort the columns, choose the columns to be displayed, change the order of the columns, filter the data, and then export the data to a Microsoft® Excel spreadsheet for custom reporting. Unisphere also reports on energy-related information, for instance power consumption and temperature for a specific platform.

Unisphere presents system information in easy-to-understand graphical views. All the views in Unisphere are customizable, and the data points behind the views can be exported for use in spreadsheets. With Unisphere, it is estimated that users can generate custom reports up to 18-times faster than manually sorting and filtering the data in a spreadsheet. With the powerful combination of Unisphere and FAST Suite, users get the benefits of “set-it-and-forget-it performance optimization” enabling them to tune application workloads in significantly less time.

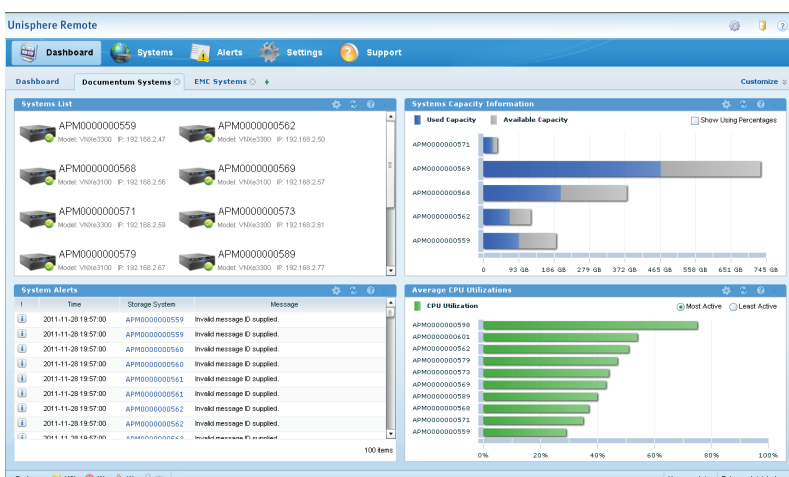
SIMPLIFYING MANAGEMENT FOR THE IT GENERALIST

Unisphere for VNXe was purpose-built for the IT generalist. With that in mind, Unisphere provides simple storage management that eliminates complexity with an application-driven approach to provisioning storage. Routine tasks are handled easily using application-specific wizards to provision and protect new storage for VMware®, Microsoft Hyper-V, or files including data protection. For example, the Microsoft Exchange wizard asks you for your Exchange version, how many mailboxes are needed, and what size, and automatically creates the storage volumes needed for the data and log files. The dashboard provides a snapshot of system resource use and open alerts, as well as direct access to essential storage and system task options. Unisphere also tracks and presents storage growth over time, enabling you to track the pace of growth and anticipate future needs based on historical trends. Monitoring storage system health is a key part of maintaining data availability and performance. System status is always available on the system page. Unisphere displays any system alerts via the

dashboard, and clicking on a hardware-related notification brings up the system health view and identifies the specific component affected.

Unisphere Remote allows VNXe customers to monitor the health and alerts of large numbers of VNXe systems across a central console. Capabilities include an easy-to-use customizable dashboard that aggregates system information like capacity, CPU utilization, health, and alerts. Users can easily launch Unisphere and access the full suite of management on each VNXe system.

There are a variety of types and sources of information available to help get the most from the VNXe system. Unisphere provides a single window into all of these



resources, known as the VNXe Ecosystem. Online resources include how-to videos, documentation, training, community access, and much more. For more information on the VNXe series, please refer to the EMC VNXe Series data sheet.

INDUSTRY-LEADING VIRTUALIZATION INTEGRATION

Unisphere automatically discovers all virtual machines managed under VMware® vCenter™ Server and provides storage administrators with end-to-end mapping of the virtual environment. For VMware administrators, EMC delivers vCenter plug-ins where VMware administrators can provision and protect their VMware storage across EMC Symmetrix®, VNX series, VNXe series, CLARiiON, and Celerra arrays, delivering an integrated point of control to simplify and speed VMware storage management tasks. With the current vSphere™ release, EMC is delivering VMware vStorage™ APIs for Array Integration (VAAI), vSphere API for Storage Awareness (VASA), support and the Virtual Storage Integrator (VSI) plug-in. VAAI offloads VMware storage-related functions from the server to the storage system, enabling more efficient use of server resources for increased performance and consolidation. The VSI plug-in snaps into vCenter enabling the VMware administrator access to storage-level functionality like discovery, provisioning, deduplication, and more.

Unisphere provides easy-to-use, best-practice provisioning and data protection wizards for Microsoft Hyper-V environments typically deployed with the VNXe. This lets users create and allocate storage to applications and enables users to monitor VNXe storage for Hyper-V environments.

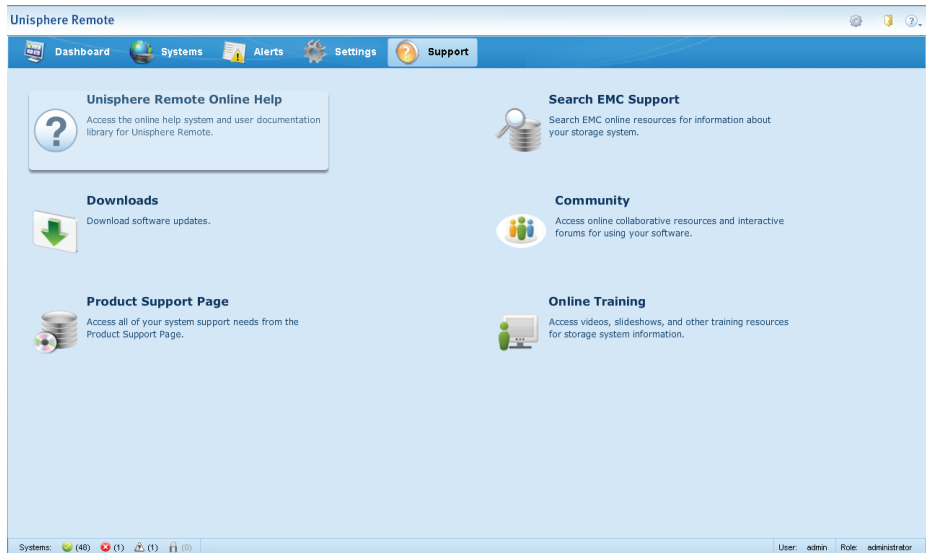
CENTRALIZED MANAGEMENT FOR ALL YOUR DATA PROTECTION AND EFFICIENCY NEEDS

EMC Unisphere provides centralized management for all your data protection and efficiency needs in simple packs and suites, including FAST Suite, Local Protection Suite, Remote Protection Suite, Application Protection Suite, and Security and Compliance Suite.

For further information on the EMC VNX and VNXe Software Suites, visit www.EMC.com.

SELF-SERVICE SUPPORT ECOSYSTEM

One of the most significant capabilities of Unisphere is the integrated support ecosystem. The speed-dial-like capability provides users with immediate online access to support tools including product documentation, best practices, FAQs, software downloads, customer communities, live chat support, ordering spares, and submitting service requests. With this simplified troubleshooting approach, there are no more worries about choosing the right software revision for your system because it will conduct a health check and recommend the latest release for you and guide you step-by-step through upgrading the software. Unisphere automates and eliminates many manual, error-prone data collection steps—for example, obtaining a failed-drive serial number—enabling users to be up to four times more productive.



INVESTMENT PROTECTION

Unisphere provides total investment protection and honors all existing domains and customer scripts. It continues to work with an existing CLARiiON (FLARE® 19 and above), Celerra (DART 6.0 and above), and the latest generation VNX and VNXe series of platforms.

CONTACT US

To learn more about how EMC products, services, and solutions 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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