

EMC DATA DOMAIN ENTERPRISE MANAGER

Centralized management for EMC Data Domain deduplication storage systems

ESSENTIALS

GUI-based Management

- Web-based application interface
- Operational simplicity and lower costs configuration wizards for initial setup

Centralized Management

- Single sign-on
- Role-based access control

Simplified Data Management

- Configure filesystem and monitor usage
- Snapshot management
- Replication management

Data Access Interfaces Management

- NFS and CIFS management
- Virtual Tape Library (VTL) management
- EMC Data Domain Boost management

Integrated Manageability

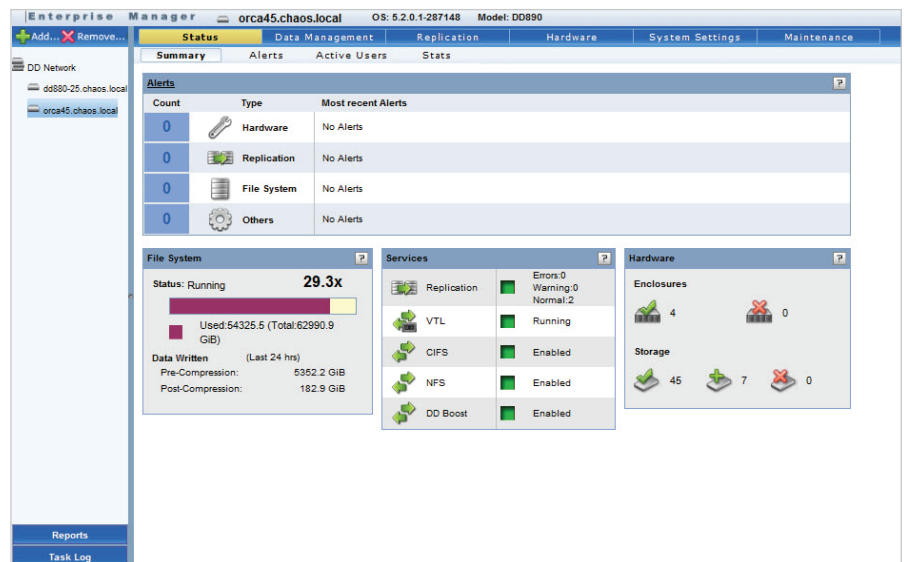
- Secure SSH-based Command Line Interface (CLI) for script integration
- SNMP-based status monitoring and alerting
- Daily, summary, and historical reporting
- Comprehensive task monitoring
- Call-home functionality for automated health monitoring

EMC® Data Domain® deduplication storage systems continue to revolutionize disk backup, archiving, and disaster recovery with high-speed, inline deduplication. By consolidating backup and archive data on a Data Domain system, storage requirements can be reduced in size by 10 to 30 times, making disk cost-effective for onsite retention and highly efficient for network-based replication to disaster recovery sites.

GUI-BASED MANAGEMENT

All Data Domain deduplication storage systems ship with EMC Data Domain Enterprise Manager, a Web-based feature rich application for managing Data Domain systems. DD Enterprise Manager provides management and monitoring of all aspects of Data Domain systems from a single interface, including the filesystem, access protocols, data management, and integrated system control. The operational simplicity of DD Enterprise Manager's dashboards provides a high-level overview of system status, and allows drill down into areas of interest.

DD Enterprise Manager also provides configuration wizards to simplify the steps required to deploy a system into production, dramatically reducing initial setup time. The easy-to-use and intuitive task-based wizards enable monitoring and configuring of core functionality such as data access interfaces and replication. This wizard-based approach effectively reduces time to value and its related administrative costs.



The Data Domain Enterprise Manager dashboard provides a high-level overview of vital information for all systems.

CENTRALIZED MANAGEMENT

DD Enterprise Manager allows the seamless management of multiple Data Domain systems from a central management station. A summary dashboard includes vital information for all systems and presents a high-level overview, with the ability to quickly drill-down into system specific views. The ability to move between high-level and detailed views greatly reduces the time needed to monitor and manage systems. DD Enterprise Manager also provides role-based access control to restrict system management access and functionality to authorized users.

SIMPLIFIED DATA MANAGEMENT

DD Enterprise Manager simplifies the task of monitoring space utilization on a Data Domain system with easy to use graphs. These graphs track historical disk usage to expose trends for subsequent evaluation. Additional functionality, including snapshot schedules for added data protection, is also provided.

DD Enterprise Manager includes an intuitive interface for visually managing the network efficient EMC Data Domain Replicator software. Several types of replication relationships are supported, providing a high-level overview and drill down to details associated with data sets of interest. The replication interface also provides the ability to track when backups are replicated offsite for DR readiness.

The screenshot displays the 'Replication' section of the DD Enterprise Manager interface. At the top, there are navigation tabs: Status, Data Management, Replication (active), Hardware, System Settings, and Maintenance. Below the tabs, a status bar indicates 'Configured replication contexts: All are Normal'. The main area is divided into 'Summary' and 'Detailed Information' sections.

Summary Section:

- Buttons: Create Pair..., Enable Pair, Disable Pair, Delete Pair, Modify Settings..., More ▾
- Filter By: All (dropdown), [Search Box], Update, Reset
- Table with columns: Source, Destination, Type, State, Synced As Of Time, Pre-Comp Remaining, Time To Completion

Source	Destination	Type	State	Synced As Of Time	Pre-Comp Remaining	Time To Completion
<input checked="" type="checkbox"/> yogi57...backup/Mc/qaia22-It03	yogi60...backup/Mc/qaia22-It03	Dir	Normal	12/01 11:02 AM	0.00 GiB	Completed
<input type="checkbox"/> yogi57.chaos.../backup/qaia41	yogi60.chaos.../backup/qaia41	Dir	Normal	12/01 11:02 AM	0.00 GiB	Completed
<input type="checkbox"/> yogi57.chaos.../backup/qaia21	yogi60.chaos.../backup/qaia21	Dir	Normal	12/01 11:02 AM	0.00 GiB	Completed
<input type="checkbox"/> yogi60.chaos.../backup/qaia19	yogi57.chaos.../backup/qaia19	Dir	Normal	12/01 11:10 AM	0.00 GiB	Completed
<input type="checkbox"/> yogi60.chaos.../backup/qaia38	yogi57.chaos.../backup/qaia38	Dir	Normal	12/01 11:10 AM	0.00 GiB	Completed
<input type="checkbox"/> yogi60...backup/Mc/qaia20-It03	yogi57...backup/Mc/qaia20-It03	Dir	Normal	12/01 11:10 AM	0.00 GiB	Completed

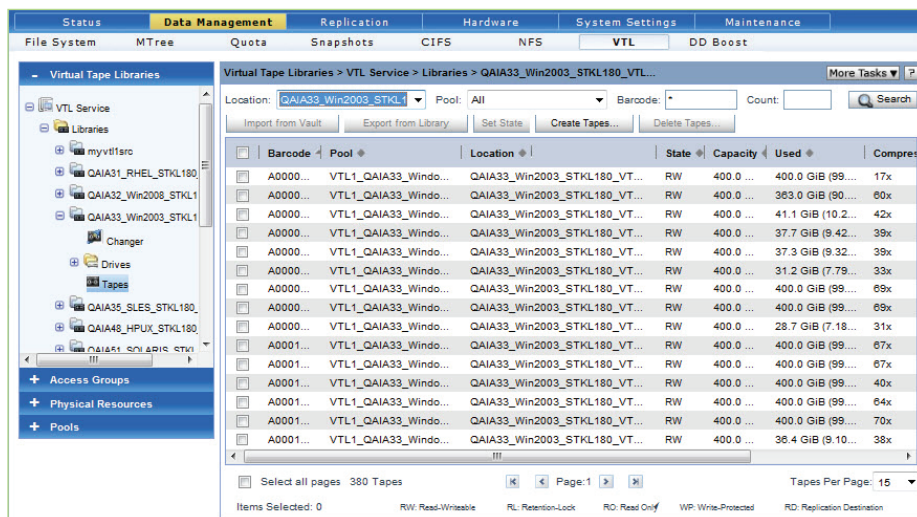
Items Selected: 1 | Items 1-6 of 6

Detailed Information Section:

- Performance Graph
- State Description: Replicating
- Source: yogi57.chaos.local/backup/Mc/qaia22-It03
- Destination: yogi60.chaos.local/backup/Mc/qaia22-It03
- Connection Port: yogi60.chaos.local:2051

Completion Stats		Status	Source	Destination
Synced As Of Time:	2010/12/01 11:02:38 AM	Replication:	Enabled	Enabled
Time To Completion:	Completed	File System:	Enabled	Enabled
Pre-Comp Remaining:	0.00 GiB	Encryption At Rest:	Disabled	Disabled
Files Remaining:	0	Encryption Over Wire:	Disabled	Disabled
Completion Predictor		Available Space:	18,734.95 GiB	19,412.14 GiB
Source Time:	Today 6 am	Low Bandwidth Optimization:	Disabled	
Completion Time:	Completed	Compression Ratio:	16.09	
		Low Bandwidth Optimization Ratio:	N/A	

Data Domain Enterprise Manager provides a high-level view of replication relationships, including a corresponding pair drill-down view to monitor additional activity and configuration details.



Data Domain Enterprise Manager simplifies VTL administration including managing emulated tape drives, slots, cartridge access ports, and cartridges.

DATA ACCESS INTERFACES MANAGEMENT

Data Domain Enterprise Manager lets you centrally manage across multiple data access interfaces including IP (CIFS, NFS, and DD Boost) and Fibre Channel (VTL). DD Enterprise Manager makes it simple to integrate Data Domain systems using standard interfaces. A configuration wizard can be used to integrate the Data Domain system into an existing Active Directory or Workgroups environment, setup CIFS shares and corresponding Access Control Lists, and integrate with Dynamic DNS. The automation of these workflows greatly reduces the setup and deployment time required to get Data Domain systems in production.

DD Enterprise Manager makes it easy to install and manage the EMC Data Domain Virtual Tape Library (VTL) software option. The configuration wizard can be used to install and configure common VTL management parameters. DD Enterprise Manager's visual management also simplifies VTL administration by managing emulated tape drives, slots, cartridge access ports, and cartridges. In short, DD Enterprise Manager significantly reduces the management challenges associated with large-scale VTL system deployment.

DD Enterprise Manager also provides an intuitive interface for EMC Avamar®, EMC NetWorker®, EMC Greenplum®, Oracle RMAN, Quest vRanger, and Symantec OpenStorage administrators to manage DD Boost functionality. DD Boost specific features such as distributed segment processing, advanced load balancing and link failover, and backup application managed file replication are easily configured using simple task-based wizards.

INTEGRATED MANAGEABILITY

In addition to the GUI-based interface, all Data Domain systems are equipped with a command line interface (CLI) for secure management over SSH. A rich set of CLIs are provided for initial system configuration and ongoing management and monitoring. SNMP-based monitoring is also provided to allow easy integration of Data Domain systems with existing heterogeneous monitoring tools. Simple scriptability along with SNMP monitoring provides additional management flexibility.

Additionally, Data Domain Enterprise Manager includes a suite of management reports to monitor performance and capacity, and forecast growth across systems. Several reports are provided including daily and cumulative reports for the file system as well as summary and per context status reports for replication. These reports can also be retained on local systems for historical purposes.

Data Domain Enterprise Manager also includes an integrated task manager, which provides the ability to monitor the progress of running tasks and view the history of completed tasks

across systems. Key details including system, description, start and end time, and error information are provided for each task. Task views can also be filtered by status.

Lastly, all Data Domain systems include autosupport, an automatic call-home system reporting feature. Autosupport generates and sends a customizable email notification of complete system status to EMC Data Domain support and a selected list of administrators. This non-intrusive alerting and data collection capability enables proactive support and service without administrator intervention, further simplifying ongoing management.

Since Data Domain deduplication storage systems achieve massive data reduction, much less physical storage equipment is required. This simplifies the management of backup, recovery, disaster recovery, and archiving operations across the distributed enterprise. In addition, centralized management of Data Domain systems using DD Enterprise Manager delivers added monitoring and control capabilities to drive maximum efficiency and a greater return on investment.

SPECIFICATIONS

SOFTWARE

EMC Data Domain Operating System 5.2 or later

EMC Data Domain Boost

EMC Data Domain Encryption

EMC Data Domain Extended Retention

EMC Data Domain Replicator

EMC Data Domain Retention Lock

EMC Data Domain Virtual Tape Library

HARDWARE

EMC Data Domain Appliance Series

WEB BROWSERS

Internet Explorer 8 or greater on Microsoft Windows

Firefox 4 or greater on Microsoft Windows and Mac OS

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