Data Sheet
FUJITSU ETERNUS SF V16.5 Storage Management Software

Central console and advanced management functions for ETERNUS DX disk storage environments.



ETERNUS SF Storage Management Software

The comprehensive and flexible data management for ETERNUS DX storage systems offers convenient, consistent and powerful tools with enterprise class functionalities even for the entry class. Innovative and advanced functions increase operational efficiency and help to implement appropriate service levels. Complementing the integrated ETERNUS DX hardware storage management the ETERNUS SF storage management software is used to support overall daily operations within the entire storage infrastructure. ETERNUS DX' embedded management, together with ETERNUS SF, serve as the overarching basis for Fujitsu's highly efficient Flexible Data Management. It offers the same usability for all operational workflows throughout the ETERNUS DX series, from entry-level systems up to the high-end models. Therefore, acquired management skills can be leveraged over sites and over time. A high degree of automation and an easy to learn, easy to handle graphical user interface reduces significantly administrator's training efforts with regards to cost and time. The customizable dashboard screen further eases all management tasks for the daily work. Storage resource optimization including implementation of policies for enhancing storage integration and operation, error discovery, health monitoring, capacity management, provisioning, local and remote replication and disaster recovery are presented with a consistent user friendly look and feel.

In addition to the cost savings given by the ergonomic and unified storage management ETERNUS SF also enables to eliminate unnecessary maintenance cost as even complex storage management operations can be executed without high-level skills or expensive vendor's intervention.

A flexible and transparent license model guarantees that customers pay only needed functionalities and such can grow with rising requirements at foreseeable cost.



ETERNUS SF Express is the management console for ETERNUS DX entry systems. ETERNUS DX60 S3/S4, DX100 S3/S4, DX200 S3/S4 disk storage systems and ETERNUS AF250 all-flash array are shipped with a free-of-charge ETERNUS SF Express license. The Express software offers basic management features, as well as simple, wizard based configuration and can monitor multiple ETERNUS DX systems with one centralized console. For advanced features ETERNUS SF Express can be easily upgraded to ETERNUS SF Storage Cruiser.

Features & Benefits

Main Features	Benefits
Configuration and Correlation Management	
■ Device detection, zoning and access path management ■ Visualization of the entire SAN infrastructure – storage systems, switches and servers including virtual machines ■ Wizard assisted setup of major features. ■ Customizable dashboard view	■ Reduces operational cost through centralized management and uniform administrative tools. ■ Lowers the workload and training needs of administrative staff ■ Allows comprehensive views of system status and system health
Fault Management	
■ Permanent status monitoring and health check of the entire infrastructure ■ Local or remote deploy of failure event alerts	■ Enables preemptive fault countermeasures ■ Reduces needed time for fault and incident detection and error fix
Performance Management	
■ Performance monitoring of storage devices and SAN infrastructure ■ Setting of performance thresholds and alert policies ■ Automated Quality of Service management based on performance requirements	■ Improves significantly application data access, availability and performance ■ Helps to avoid, identify and eliminate performance bottlenecks ■ Increases quality of service
Automated Storage Tiering Management	
■ Setup of profiles, policies and tier pools for automatic data movement	■ Lowers acquisition cost while increasing I/O performance ■ Reduces total cost of ownership, energy consumption and system footprint
Replication and Backup Management	
■ Comprehensive functions for local and remote replication ■ Non-stop backup for all major database systems ■ Backup support for virtualized server environments	■ Replication and backup tailorable to business needs ■ Frees server resources for operative tasks
Disaster Recovery Management	
■ Setup and management of synchronous and asynchronous array-based replication ■ Automated failover in virtualized server environments	■ Prevents loss of vital information and data ■ Ensures continous business operations, services and production under any circumstances.
Business Continuity Management	
■ Transparent failover between storage systems ■ Automatic and manual failover	■ Round the clock application availability ■ Ease-of-use and affordable business continuity
Energy Consumption Management	
■ Monitoring of power consumption and temperature ■ Setting of thresholds and policies for disk spin-dow	■ Decreases expenditures for power and cooling

Licenses and functions overview

ETERNUS SF Web GUI

- The standard browser based graphical user interface provides an intuitive single console for the entire ETERNUS DX family and enables administrators to implement storage environments with ease and without high-level skills. A customizable dashboard facilitates real-time and comprehensive information regarding the current system state.

ETERNUS SF Express License

- Free-of-charge license for the ETERNUS DX entry systems that offers restricted functions for configuration, management and monitoring as well as basic snapshot capabilities

ETERNUS SF Storage Cruiser (SC) Licenses

- ETERNUS SF SC Basic License: Offers functions to monitor and administrate multiple ETERNUS DX systems including unified (block and file) mangement, storage system configuration, thin provisioning, health and status overview, performance monitoring, Eco Mode settings, power consumption and temperature monitoring.
- ETERNUS SF SC Standard License: Enhanced license offering in addition to the basic license health, status and end-to-end relationship overview for 3rd party storage, switches, servers and VM's, SAN management with correlation and map view and a reporting function. Mandatory prerequisite for the Optimization, QoS and Storage Cluster licenses.
- ETERNUS SF SC Optimization License: Enables automated tiering by setting policies to automatically place data on the right media at the right time, achieving the best balance between maximizing performance and minimizing cost
  (available for ETERNUS DX S3/DX S4 series except DX60 S3/S4, DX80 S2, DX90 S2, DX400 S2 series, DX8700 S2 and ETERNUS AF series).
- ETERNUS SF SC QoS Management License: Enables the consolidation of multiple tiers of applications in single storage systems. The ETERNUS SF QoS automation feature enhances the array-based ETERNUS DX QoS feature and automates the process by dynamically maintaining, controlling and balancing the response times of the application-specific volumes
  (available for ETERNUS DX100 S3/S4, DX200 S3/S4, DX500 S3, DX600 S3, DX8700 S3, DX8900 S3 and ETERNUS AF series).
- ETERNUS SF SC Storage Cluster License: Transparent failover feature which ensures business continuity in case of planned or unplanned outage of a complete array
  (available for DX100 S3/S4, DX200 S3/S4, DX500 S3, DX600 S3, DX8700 S3, DX8900 S3, DX200F and ETERNUS AF series).

ETERNUS SF AdvancedCopy Manager (ACM) Licenses

- ETERNUS SF ACM Local Copy License: Offers a comprehensive set of array-based snapshot, cloning and mirroring capabilities including wizard-assisted backup for Exchange and SQL Servers. Mandatory prerequisite for the Exchange Server and SQL Server licenses
- ETERNUS SF ACM Remote Copy License: Enables synchronous or asynchronous remote mirroring between arrays. Mandatory prerequisite for the Storage Cluster license
  (not available for ETERNUS DX60/DX60 S2/DX60 S3/DX60 S4/DX80/DX80 S2).
- ETERNUS SF ACM for Exchange Server License: Restore wizard for Exchange Server
- ETERNUS SF ACM for SQL Server License: Restore wizard for SQL Server

Feature Packs

- ETERNUS SF Replication Bundle: includes SC Standard License, ACM Local Copy, ACM Remote Copy, ACM for Exchange, ACM for SQL Server licenses
  (available for ETERNUS DX S3 / DX S4 series, for DX60 S3/S4 wihout ACM Remote Copy).
- ETERNUS SF Replication Bundle with Tiering: includes Replication Bundle and SC Optimization Option licenses
  (available for ETERNUS DX S3 / DX S4 series except DX60 S3/S4).
- ETERNUS SF Tiering Bundle: includes SC Standard and SC Optimization Option licenses
  (available for ETERNUS DX100 S3/S4, DX200 S3/S4, DX500 S3, DX600 S3).
- ETERNUS SF Business Continuity Bundle: includes SC Standard, ACM Remote Copy and Storage Cluster Option licenses.
  (available for ETERNUS DX100 S3/S4, DX200 S3/S4, DX500 S3, DX600 S3).
- All-in FlashPack: includes SC Standard, ACM Local & Remote Copy and SC Quality of Service Management Option .
  (included in ETERNUS AF series).

More details for all features can be found on:
www.fujitsu.com/global/products/computing/storage/disk/eternus-dx/feature/

Technical details

ETERNUS SF Whitepapers and Details for Features	
ETERNUS SF Technical Whitepaper	http://www.fujitsu.com/global/products/computing/storage/software/eternus-sf/index.html
Storage Cluster	http://www.fujitsu.com/global/products/computing/storage/disk/eternus-dx/storage-cluster/
VMware VVOL	http://www.fujitsu.com/global/products/computing/storage/disk/eternus-dx/eternusdx-vvol/

ETERNUS SF Storage Cruiser- Supported Devices	
Disk Storage Systems	ETERNUS DX60 S4, DX100 S4, DX200 S4 ETERNUS DX60 S3, DX100 S3, DX200 S3, DX500 S3, DX600 S3 ETERNUS DX8700 S3, DX8900 S3 ETERNUS DX60/DX60 S2, DX80 S2, DX90 S2 ETERNUS DX410/DX410 S2, DX440/DX440 S2 ETERNUS DX8400, DX8700/DX8700 S2 NetApp FAS series Tintri VMstore series (can be monitored only by the management server for Windows)
All Flash Arrays	ETERNUS AF250, AF650 ETERNUS DX200F
Tape Libraries	ETERNUS LT20/LT20 S2, LT40/LT40 S2, LT60 S2 ETERNUS LT200, LT210, LT220, LT230, LT250, LT270, LT270 S2, LT260
Data Protection Appliances	ETERNUS CS800, CS800 S2, CS800 S3, CS800 S4, CS800 S5 ETERNUS CS2000
Fibre Channel Switches	Brocade 12000, 24000, 48000 Brocade 8000, 7800, 7500, 6730, 6710, 6510, 6505, 5000, 5100, 5300, 5450 Brocade 4016, 4016 4D, 4100, 4900 Brocade 3250, 3850, 3014, 3200, 3800, 3900 Brocade G620 Brocade 200E, 300 Brocade DCX 8510-4/8, DCX, DCX-S4 Brocade X6-4/8 Brocade AP7420 PRIMERGY Fibre Channel Switch Blade PRIMERGY BX600 Fibre Channel Switch Blade PRIMERGY Fibre Channel Switch Blade S26361-F3144-E1/L1, S26361-F3144-E2/L2, S26361-F3144-E4 S26361-F3144-E6, S26361-F3144-E14, S26361-F3144-E16 S26361-K1305-V14, S26361-K1305-V26, S26361-K1305-V126

ETERNUS SF AdvancedCopy Manager - Supported Devices	
Disk Storage Systems	ETERNUS DX60 S4, DX100 S4, DX200 S4 ETERNUS DX60 S3, DX100 S3, DX200 S3, DX500 S3, DX600 S3 ETERNUS DX8700 S3, DX8900 S3 ETERNUS DX60/DX60 S2, DX80 S2, DX90 S2 ETERNUS DX410/DX410 S2, DX440/DX440 S2 ETERNUS DX8400, DX8700/DX8700 S2
All Flash Arrays	ETERNUS AF250, AF650 ETERNUS DX200F

ETERNUS SF Express- Supported Devices	
Hybrid Storage Systems/Disk Storage Systems	ETERNUS DX60 S4, DX100 S4, DX200 S4 ETERNUS DX60 S3, DX100 S3, DX200 S3 ETERNUS DX60/DX60 S2, DX80 S2, DX90 S2
All Flash Arrays	ETERNUS AF250 ETERNUS DX200F

Installation specification

Manager Platforms	Microsoft Windows Server 2016 Microsoft Windows Server 2012, 2012 R2 Microsoft Windows Server 2008, 2008 R2 Solaris 11 (11/11 or later), Solaris 10 (except ETERNUS SF Express) Red Hat Enterprise Linux 7 Red Hat Enterprise Linux 6 Red Hat Enterprise Linux 5 Oracle Linux 6 VMware® vSphere 6.0, 6.5 VMware® vSphere 5.0, 5.1, 5.5 Microsoft Windows Server 2016 Hyper-V Microsoft Windows Server 2012 Hyper-V, 2012 R2 Hyper-V Microsoft Windows Server 2008 Hyper-V, 2008 R2 Hyper-V Hyper-V 2.0
Agent Platforms	Microsoft Windows Server 2016 Microsoft Windows Server 2012, 2012 R2 Microsoft Windows Server 2008, 2008 R2 Microsoft Windows Server 2003, 2003 R2 Solaris 11 (11/11 or later), Solaris 10 Red Hat Enterprise Linux 7 Red Hat Enterprise Linux 6 Red Hat Enterprise Linux 5 Red Hat Enterprise Linux AS v.4 Red Hat Enterprise Linux ES v.4 Oracle Linux 6 SUSE Linux Enterprise Server 12 HP-UX 11i v3, HP-UX 11i v3 (IPF) AIX 7.1/6.1 VMware® vSphere 6.0, 6.5 VMware® vSphere 5.0, 5.1, 5.5 Microsoft Windows Server 2016 Hyper-V Microsoft Windows Server 2012 Hyper-V, 2012 R2 Hyper-V Microsoft Windows Server 2008 Hyper-V, 2008 R2 Hyper-V Hyper-V 2.0 KVM on RHEL 7 KVM on RHEL 6
Client - Web Browser	Internet Explorer 9, 10, 11 Firefox ESR 17, 24, 31, 38, 45, 52 Microsoft Edge 25
Client - Tablet (Dashboard Screens)	Safari 8, 9 (iOS) Chrome 47, 50 (Android)

Fujitsu products, solutions & services

In addition to FUJITSU ETERNUS SF V16.5 Storage Management Software, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/products/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu ETERNUS SF V16.5 Storage Management Software, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/eternus

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment



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2021-07-30 WW-EN