FUJITSU Storage
ETERNUS DX

Configuration Guide -Server Connection-

FCoE/
ETERNUS DX100 S3/DX200 S3, ETERNUS DX500 S3/DX600 S3,
ETERNUS DX8100 S3/DX8700 S3/DX8900 S3 Hybrid Storage Systems Settings

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Preface

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This manual briefly explains the operations that need to be performed by the user in order to connect an ETERNUS DX to a server running Solaris OS, Windows®, Linux, or VMware ESX via an FCoE interface.

This manual should be used in conjunction with any other applicable user manuals, such as those for the ETERNUS DX, server, OS, Converged Network Adapter cards, and drivers.

Refer to "Configuration Guide -Server Connection- Notations" for the notations used in this manual such as product trademarks and product names. For storage systems that are supported by the OS, refer to the Server Support Matrix of the ETERNUS DX.

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The Contents and Structure of this Manual

This manual is composed of the following two chapters.

- "Chapter 1 Workflow" (page 6)

  This chapter describes the workflow when setting up an ETERNUS DX.

- "Chapter 2 Setting Up the ETERNUS DX" (page 8)

  This chapter describes how to set up an ETERNUS DX.

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Workflow

This manual is used when performing the setup procedures described in the "Setting Up the ETERNUS DX" section of the "Configuration Guide -Server Connection- (FCoE)" for each OS.

Required Documents

- "Fabric OS Administrator's Guide Supporting Fabric OS"

- "ETERNUS Web GUI User's Guide"

- "ETERNUS CLI User's Guide"

Workflow

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Setting the FCoE Port Parameters

Set the to-server connection type.

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After completing all the required procedures in this manual, follow the procedures in "Configuration Guide -Server Connection- (FCoE)" for each OS.

Chapter 2
Setting Up the ETERNUS DX

2.1 Common Settings

This section explains the settings required for all server OSs, regardless of the connection configuration.

See the "ETERNUS Web GUI User's Guide" for details of how to set up and operate ETERNUS Web GUI.

2.1.1 Setting the To-server Connection Type (Setting the FCoE Port Parameters)

For each connection configuration, set the indicated items only. All other parameters should be left on their default values.

Table 2.1 FCoE port parameter settings

Parameter	Solaris OS, Windows®, Linux, VMware ESX
Transfer Rate	10 Gbit/s
Frame Size	2048 bytes (Default value)
Reset Scope	I_T_L
Release Reservation if Chip is Reset	Disable

> ▷ **Caution**

Make sure to prepare and set up FCoE switches. For further details, refer to "Fabric OS Administrator's Guide Supporting Fabric OS".

2.1.2 Creating the Server Accessible LUN Groups (Setting the LUN Groups)

Create LUN groups for the server to access. Refer to "Connectivity Management" in "ETERNUS Web GUI User's Guide" for details, and set the LUN groups.

> ▷ **Caution**

Depending on the OS version, the server may not recognize the ETERNUS DX unless a LUN group is assigned from LUN0. In this case, assign a LUN group starting from LUN0 in ascending order.

2.1.3   Setting the Host Responses

The host response parameters for the ETERNUS DX must be set to match the way the server processes the responses to requests from the ETERNUS DX. Setting of the host response must be done before connecting the ETERNUS DX to the server.

Set the parameters that are described below for each OS.

Retain the default values for all of the parameters that are not described below.

Table 2.2 Host response settings

OS	Conditions	Host response selection
Solaris	When using PRIMECLUSTER (regardless of the multipath software type)	Default
	When using the OS standard Multipath Driver (MPxIO)	Solaris MPxIO
	Other cases	Default
Windows® Linux VMware ESX	–	Default

> ▶ **Caution**

[When Using the Area Release (UNMAP) Function of the Deduplication/Compression Volume in Windows®, RHEL, and VMWare]

- If the firmware version is V10L82 or later, configure new settings without selecting a host response as shown in the table below. The following parameters are available only for ETERNUS CLI.

  Refer to "ETERNUS CLI User's Guide" for details of the setup procedure.

  All other parameters should be left on their default values.

  Table 2.3 Setting values for the set host-response command

Parameter	Setting value
-lbp-for-dedup-comp	enable

  Reboot the server OS or rescan the storage system for the following.

  - The host response is set (enabling -lbp-for-dedup-comp) in a state where the Deduplication/Compression volume is already recognized by the server
  - When one of the following operations is performed after the host response is set in a state where the Deduplication/Compression volume is already recognized by the server
    - Changing the firmware version from V10L82 or later to a version earlier than V10L82
    - Changing the "-lbp-for-dedup-comp" parameter to "disable"

  Table 2.4 Required operation for each OS

OS	Required operation
Windows®	Rebooting the OS
RHEL	Rebooting the OS
VMware	Rescanning of the storage system or rebooting the OS

- When a new Deduplication/Compression volume is created and the Area Release function is used, setting a host response in advance is recommended (Table 2.3).

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2.1.4　Setting the CA Port Groups

Create new FCoE port groups and register the ports as members of the groups. A port group is a group of ports that access the same LUN group (ports that are used for multipath connection to the server or for connecting to the cluster configuring server). Configure the host affinity setting for each FCoE port group.

2.1.5　Registering the WWNs of the Accessing Converged Network Adapter Cards (Setting FCoE Host)

Register the WWN of each Converged Network Adapter card installed in the server that will access the ETERNUS DX. At the same time, set the host response registered in "2.1.3 Setting the Host Responses" (page 9) to accept these FCoE hosts (WWNs).

Registering the FCoE host WWNs and setting up Host Affinities as described elsewhere, allows limits to be set on which servers are allowed to access which ETERNUS DX LUNs.

> ▷ **Caution**
>
> When a server-side Converged Network Adapter card is replaced, the WWN of the replacement Converged Network Adapter card must be re-registered to the ETERNUS DX.

2.1.6　Allocating LUN Groups (Setting the Host Affinity)

Allocate the relationship between registered FCoE hosts (WWN), CA port groups, and LUN groups using the Host Affinity setting function to specify which LUNs to be accessed. This sets access restrictions to the ETERNUS DX from each server.

Refer to "Connectivity Management" in "ETERNUS Web GUI User's Guide" for details, and set the LUN groups.

> ▷ **Caution**
>
> If the one-to-one relationship between the WWNs and Converged Network Adapter cards cannot be determined, the Host Affinity may not be set correctly.
>
> In this case, trying various settings may be necessary until the server is able to recognize the ETERNUS DX logical disks.

2.2 Specific Settings

Specific settings for the OS and connection configuration are not required.

2.2.1 Setting the CA Reset Groups

Because all of the ports are configured to be members of one CA reset group in the initial setting, the reset group settings do not need to be changed.

2.3 Checking the WWNs

Use ETERNUS Web GUI to check the WWN of each ETERNUS DX. They are required for connecting the ETERNUS DX to the server.

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