

Installation Information

GR Multipath Driver (Windows Version)

(June, 2006)

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Supported Operating System (OS) Versions

This table shows the versions of Windows supported by GR Multipath Driver (GRMPD).

The supported OS types are the same for GR Device Driver and GR Multipath Driver.

Supported OS versions	GRMPD Version Level
<ul style="list-style-type: none"> Microsoft® Windows NT® Server Network Operating System Version 4.0 (Service Pack 6 or later) Microsoft® Windows NT® Server Network Operating System Version 4.0 Enterprise Edition (Service Pack 6 or later) 	V1.0L10 or later
<ul style="list-style-type: none"> Microsoft® Windows® 2000 Server (Service Pack 2 or later) Microsoft® Windows® 2000 Advanced Server (Service Pack 2 or later) 	
The following OS versions can only use the client package*1	
Microsoft® Windows NT® Workstation Version 4.0 (Service Pack 6 or later)	V1.0L10 or later
Microsoft® Windows® 2000 Professional (Service Pack 2 or later)	
Microsoft® Windows® XP Professional	V1.0L13 or later

*1: The client package only provides management tools. The package can be found in the 'Client' folder on the accompanying GR Multipath Driver CD-ROM.

With a GR Multipath Driver already employed in a Microsoft® Windows Server™ 2003 environment, no change is required.

If you are planning to newly employ GR Multipath Driver for a Microsoft® Windows Server™ 2003 environment, choose ETERNUS Multipath Driver V2.0 instead of GR Multipath Driver.

For the use of a Multipath Driver in a clustered Microsoft® Windows Server™ 2003 environment, please contact us.

Installation Packages for Each OS Version

The installation package for each OS version can be found on the accompanying GR Multipath Driver CD-ROM in separate sub-folders. These sub-folders (shown below) can be found in the “English” folder.

For installation procedures, refer to manual supplied with the product.

Folder Name	OS Version
NT4	Windows NT®
W2K	Windows® 2000
Client	Client OS

Supported Storage Systems

GR Multipath Driver supports the following storage systems.

- ETERNUS8000
- ETERNUS6000
- ETERNUS4000
- ETERNUS3000
- ETERNUS GR Storage

The supported storage systems are the same for GR Device Driver and GR Multipath Driver for Enterprise Model.

ETERNUS8000 storage system

Storage system	GRMPD	Version Level
ETERNUS8000	for Enterprise Model	V1.0L14 or later
ETERNUS8000 up to 2 Paths	for Standard Model for Enterprise Model	V1.0L14 or later

ETERNUS6000 storage system

Storage system	GRMPD	Version Level
ETERNUS6000	for Enterprise Model	V1.0L12 or later
ETERNUS6000 up to 2 Paths	for Standard Model for Enterprise Model	V2.0L14 or later

ETERNUS4000 storage system

Storage system	GRMPD	Version Level
ETERNUS4000 model 80 ETERNUS4000 model 100	for Entry Model for Standard Model for Enterprise Model	V1.0L14 or later
ETERNUS4000 model 300 ETERNUS4000 model 500	for Standard Model for Enterprise Model	V1.0L14 or later

ETERNUS3000 storage system

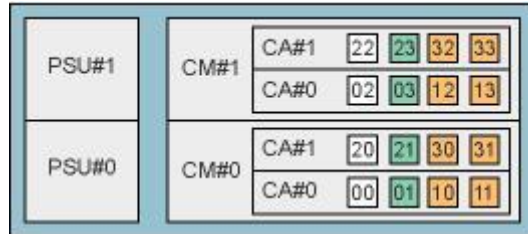
Storage system	GRMPD	Version Level
ETERNUS3000 model 50	for Entry Model for Standard Model for Enterprise Model	V1.0L12 or later
ETERNUS3000 model 80	for Entry Model for Standard Model for Enterprise Model	V1.0L14 or later
ETERNUS3000 model 100	for Entry Model for Standard Model for Enterprise Model	V1.0L12 or later
ETERNUS3000 model 200	for Standard Model for Enterprise Model	V1.0L11 or later
ETERNUS3000 model 300	for Standard Model for Enterprise Model	V1.0L14 or later
ETERNUS3000 model 400	for Standard Model for Enterprise Model	V1.0L11 or later
ETERNUS3000 model 500	for Standard Model for Enterprise Model	V1.0L14 or later
ETERNUS3000 model 600	for Standard Model for Enterprise Model	V1.0L12 or later
ETERNUS3000 model 700	for Standard Model for Enterprise Model	V1.0L14 or later

ETERNUS GR series storage systems

Storage system	GRMPD	Version Level
GR710	for Entry Model for Standard Model for Enterprise Model	V1.0L10 or later
GR720	for Standard Model for Enterprise Model	V1.0L10 or later
GR730	for Standard Model for Enterprise Model	V1.0L10 or later
GR740 GR820 GR840	for Enterprise Model	V1.0L10 or later
GR740 up to 2 Paths GR820 up to 2 Paths GR840 up to 2 Paths	for Standard Model for Enterprise Model	V1.0L14 or later

Channel Adapter ID and Connection Points

ETERNUS8000 model 700 rear view

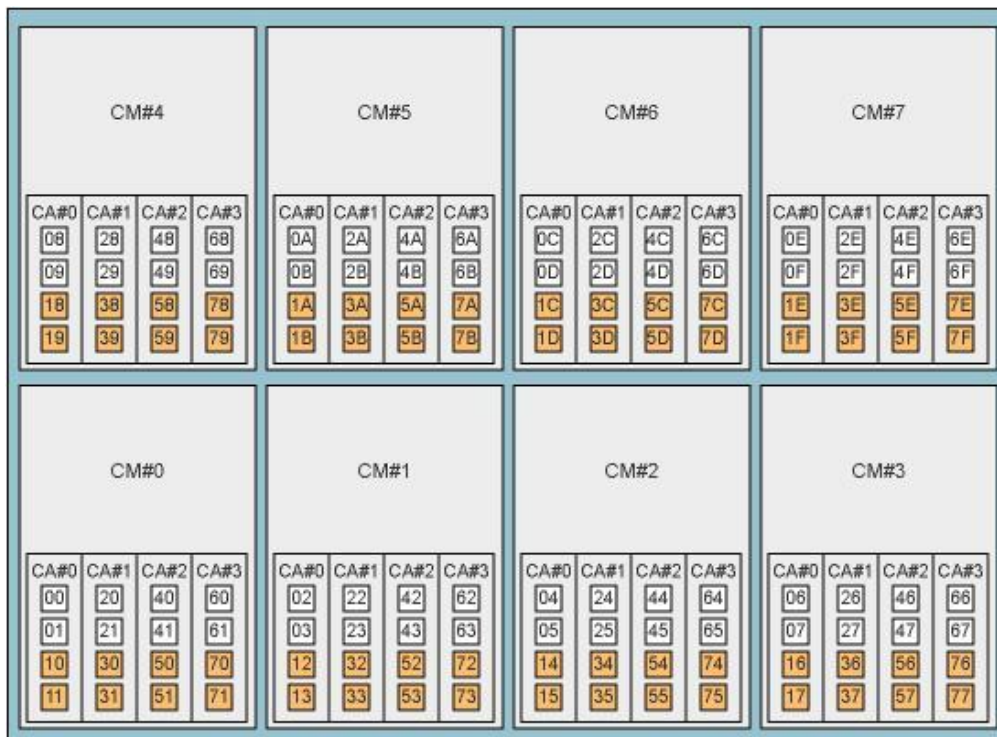


CM : Controller Module, PSU : Power Supply Unit

When using 2Port-CA

When using 4Port-CA

ETERNUS8000 model 900, 1100, 2100 rear view

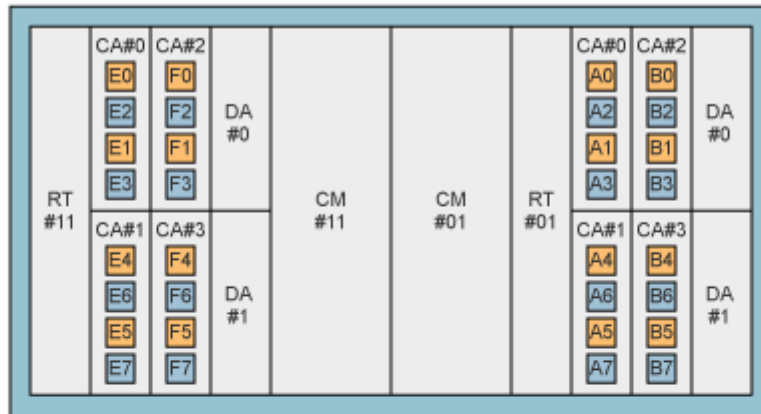


CM : Controller Module

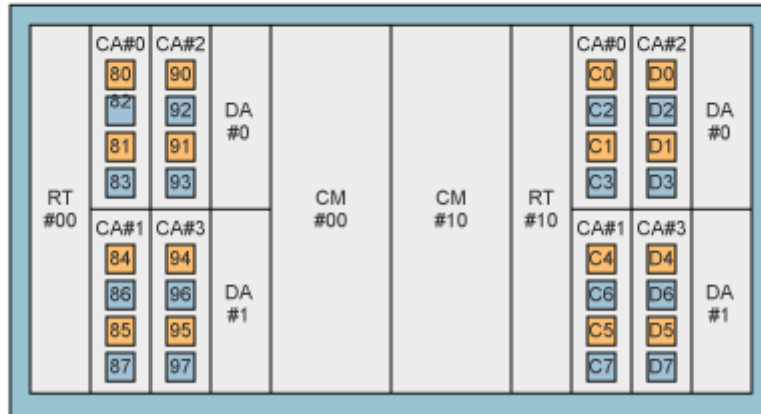
When using 4Port-CA

ETERNUS6000 front and rear view

[Front view]



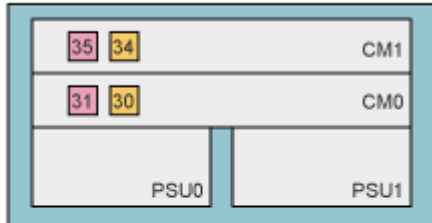
[Rear view]



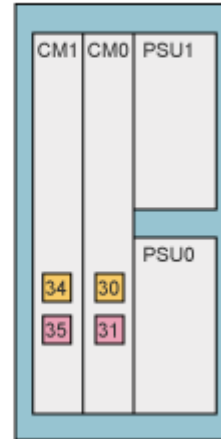
■ When using 4Port-CA ■ CAID

ETERNUS4000 model 80, 100 rear view

[Rack mount]

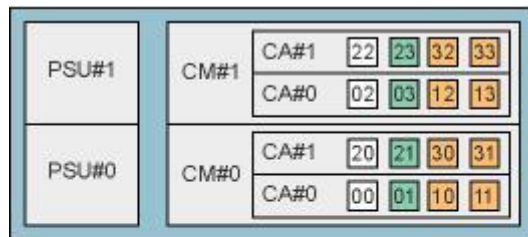


[Pedestal]



CM: Controller Module, PSU: Power Supply Unit
 ■ When using 2 port-CM ■ CAID

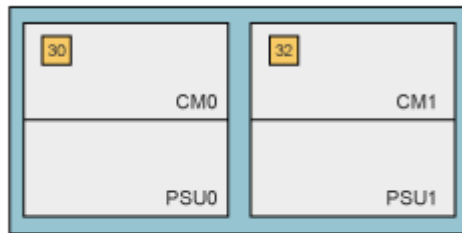
ETERNUS4000 model 300, 500 rear view



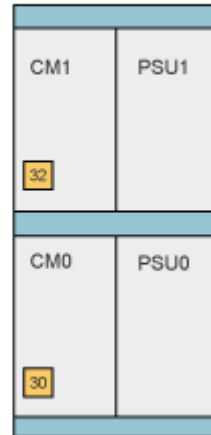
CM : Controller Module, PSU : Power Supply Unit
 ■ When using 2Port-CA
 ■ When using 4Port-CA

ETERNUS3000 model 50 and GR710 rear view

[Rack mount]



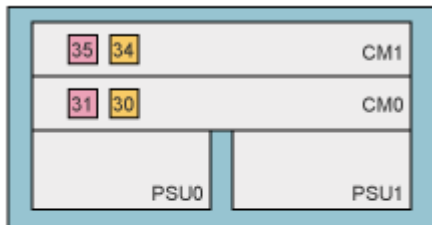
[Pedestal]



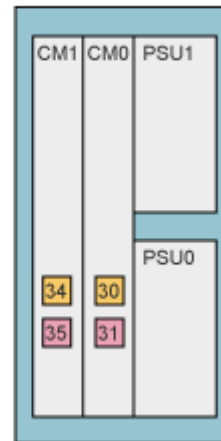
CM: Controller Module, PSU: Power Supply Unit
 ■ CAID

ETERNUS3000 model 80 and 100 rear view

[Rack mount]



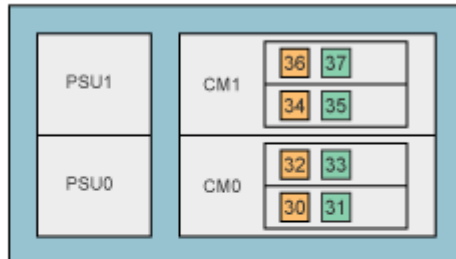
[Pedestal]



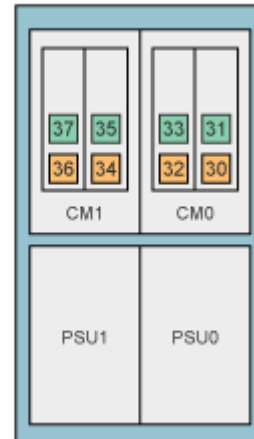
CM: Controller Module, PSU: Power Supply Unit
 ■ When using 2 port-CM ■ CAID

ETERNUS3000 model 200, 300, 400, 500, 600 and 700 rear view

[Floor stand / Rack mount]

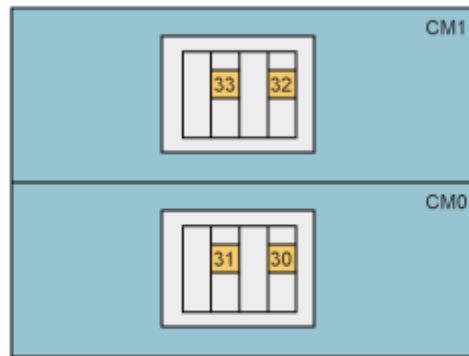


[Pedestal]



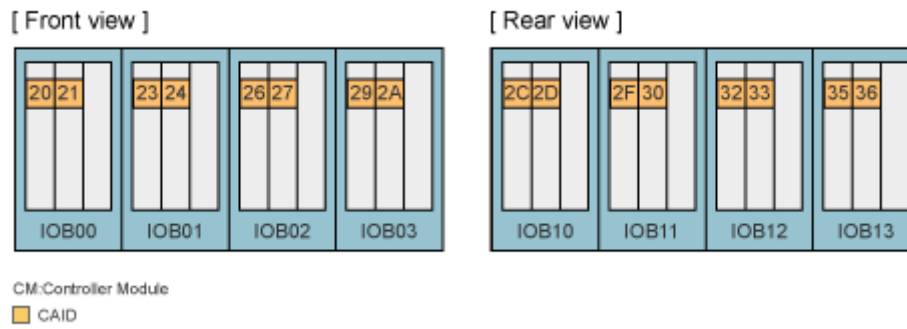
CM: Controller Module, PSU: Power Supply Unit
 ■ When using 2 port-CA ■ CAID

GR720 and GR730 rear view



CM: Controller Module
 CAID

GR740, GR820 and GR840 rear view



CM: Controller Module
 CAID

Connection Requirements

The tables below show FC card types, topologies, clustering software and FC card drivers supported by GR Multipath Driver.

They are the same as those supported by GR Device Driver.

- An FC card is required for GR Multipath Driver connection

GRMPD Version Level	FC Cards For PRIMERGY	FC cards for 3rd party IA servers
V1.0L10	SNP:SY-F2244E2-P SNP:SY-F2244E2-A SNP:SY-F2244L2-P	Qlogic
V1.0L11	SNP:SY-F2244E2-P SNP:SY-F2244E2-A SNP:SY-F2244L2-P	Emulex, Qlogic
V1.0L12	SNP:SY-F2244E2-P SNP:SY-F2244E2-A SNP:SY-F2244L2-P S26361-F2624-E1	Emulex, Qlogic
V1.0L13	SNP:SY-F2244E2-P SNP:SY-F2244E2-A SNP:SY-F2244L2-P S26361-F2624-E1 S26361-F2843-E1	Emulex, Qlogic
V1.0L14	SNP:SY-F2244E2-P SNP:SY-F2244E2-A SNP:SY-F2244L2-P S26361-F2624-E1 S26361-F2843-E1 S26361-F2843-E201 S26361-F3023-E1 S26361-F3141-E10 S26361-F3141-E210 S26361-F3141-E1 PG-FC106 PG-FC107 PG-FC201	Emulex, Qlogic

Note: For information related to PRIMERGY, refer to the following URL.
http://vilpublic.fujitsu-siemens.com/vil/pc/vil/primergy/overview/prince/pages/primergy_public_configs.htm

- **Topology**

GRMPD Version Level	Topology
V1.0L10 or later	FC-AL, Fabric

- **Clustering Software**

GRMPD Version Level	Clustering Software
V1.0L10 or later	Microsoft Cluster Service

Assigned-/Non-assigned-CM Type Storage Systems

For ETERNUS3000 and GR Storage, there are two system types: “Assigned-CM” and “Non-assigned-CM.” With Assigned-CM storage systems, the main access path for each LU is assigned to a particular controller. With Non-assigned-CM storage systems, there are no assigned LU access paths as such.

With “Assigned-CM” type storage systems, the path connected to the assigned controller is active. Paths to other controllers are on standby. With “Non-assigned-CM” type storage systems, all paths are active and used for access.

The table below shows the “Assigned-CM” and “Non-assigned-CM” storage systems.

Load balancing/failover performance can differ depending on “Assigned-CM” and “Non-assigned-CM” use and the number of paths employed. For details, refer to the supplied product manual.

Assigned-CM type	ETERNUS43000 ETERNUS3000 GR710, GR720, GR730
Non-assigned-CM type	ETERNUS8000 ETERNUS6000 GR740, GR820, GR840

Notes

1 LUN mapping

If LUN mapping in the disk array is not set properly, Windows may not recognize LUNs correctly. For proper LUN mapping, the LUN numbers Windows recognizes must be in ascending order from LUN 0.

2 FC card driver settings

If the FC card driver is not set properly, Windows may not recognize LUNs correctly. For proper FC card driver settings, follow the instructions written in the "Storage System Server Connection Guide" or "User Guide - Host Connection Guide" that comes with the disk storage system.

About This Installation Information

This Installation Information is devoted to providing technical information and an overview of the basic facilities of GR Multipath Driver. The contents of this document may be modified without any prior notice. Please contact FUJITSU LIMITED if you find any error in descriptions.

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