

FUJITSU Software

PRIMECLUSTER GD I/O Monitor Option

4.5A00

A decorative horizontal band with a red-to-dark-red gradient, featuring abstract, glowing white and red lines that swirl and intersect, creating a sense of motion and technology.

Installation Guide

Oracle Solaris

J2S0-0465-01ENZ0(00)
April 2017

Preface

Purpose

This manual explains how to install PRIMECLUSTER GD I/O Monitor Option.

Target Readers

This manual is written for people who will install this product.

It is strongly recommended that you read the Software Release Guide from the product media before using this manual.

When setting up systems, it is assumed that readers have the basic knowledge required to configure the servers, storage and network devices to be installed.

Organization

This manual consists of four chapters. The contents of these chapters, the appendices are listed below.

Title	Description
Chapter 1 Program components	Explains the packages of which this product is composed.
Chapter 2 Operation environment	Explains the operational environment of this product.
Chapter 3 Installation	Explains how to install this product.
Chapter 4 Uninstallation	Explains how to uninstall this product.

Notational Conventions

The notation in this manual conforms to the following conventions.

- References and character strings or values requiring emphasis are indicated using double quotes (").
- Text to be entered by the user is indicated using bold text.
- Variables are indicated using italic text.

The following abbreviations are used in this manual:

- Global Disk Services is abbreviated as GDS.

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Chapter 1 Program components

A system consists of programs, and each program is referred to as a package.
This software consists of the following packages.

No.	Component	Package	Version	Function
1	Global Disk Services I/O Monitor Option	FJSVsdxiom	4.5.0	I/O response time assurance function

Chapter 2 Operation environment

This chapter explains the operation environment of this software.

2.1 Software environment

1. Required basic software

To use this software, install either of the following basic softwares.

No.	Basic Software	Remark
1	Oracle Solaris 10 (8/11 or later)	
2	Oracle Solaris 11	

2. Required software

To use this software, the following software product is required.

No.	Software	Package	Version and/or level	Remark
1	PRIMECLUSTER GD, PRIMECLUSTER Enterprise Edition, PRIMECLUSTER HA Server	FJSVsdx	4.5.0	
2	Multipath Diagnostic Program	FJSVpdiag	1.1.0 or later	Included in Enhanced Support Facility 5.1 or later.

3. Exclusive software

None.

4. Required patches

No.	Software	Patch	Remark
1	ETERNUS Multipath Driver	T011535SP-04 or later	(*)

(*) When using ETERNUS Multipath Driver, use version 3.1.0 or later.

Note

We recommend that the basic software patch "Program Temporary Fixes (PTFs)", "FUJITSU Recommended & Security Patch Clusters (FJ RSPC)" and "Support Repository Update (SRU)" be applied.

2.2 Hardware environment

The following hardware requirements must be satisfied to operate this software.

1. Memory

It is necessary to have more memory than what is calculated using the formula below.

The "Number of volumes" in the formula below is the number of volumes in the class where the setup of the I/O Response Time Assurance Function is done.

$$2 \text{ MB} + (1 \text{ MB} \times \text{Number of volumes})$$

2. Required hardware
None.
3. Related hardware
None.

2.3 Static disk resources

This section explains static disk space requirements for this software.

2.3.1 Required disk space

The following table lists the disk space requirements for installing this software. If necessary, expand the size of the relevant file systems.

No.	Directory	Disk space (in MB)	Remark
1	/etc/opt	0.1	

2.3.2 Required work area

None.

2.4 Dynamic disk resources

This section explains dynamic disk space requirements for this software.

2.4.1 Required disk space

When this software is operated in the following environment, the additional disk space shown below is required for each directory as well as the disk space required for installing this software as described in "2.3 Static disk resources". If free space is insufficient, expand the size of the relevant file system.

No.	Directory	Disk space (in MB)	Operation
1	/var/opt	4.3	If this software is installed.

2.5 Required memory

The following table shows the memory required when this software is operated in the following environment.

No.	Memory (in MB)	Operation
1	(3 MB x Number of disks) + (33 MB x Number of volumes)	If using the I/O Response Time Assurance Function. The number of disks and number of volumes in the formula to the right are the number of disks and number of volumes of the class used to set the I/O Response Time Assurance Function.

Chapter 3 Installation

This chapter explains the installation of this software.



Information

If the No.1 package described in "2. Required software" of "2.1 Software environment" has not been installed, this software cannot be installed.

3.1 Preparations

1. Time required

It takes approximately 3 minutes to install this software.

2. Checking the system environment

Make sure that the disk has enough free space to install this software. For the disk size that this software uses, see "2.3 Static disk resources". If free space is insufficient, re-configure the disk partitions.

3. Saving the Configuration files

None.

3.2 Installation

1. Insert CD of this software into the CD drive.

2. Login to the system and become a root user.

```
% su <Return>
Password:password <Return>
#
```

3. The system is changed to the OpenBoot environment.

```
# /usr/sbin/shutdown -y -g0 -i0 <Return>
```

4. Start the system in single user mode.

```
{0} ok boot -s <Return>
```

5. Mount necessary file systems.

```
# /usr/sbin/zfs mount -a <Return>
```

When installing in the UFS file system directory, please execute the following command.

```
# /usr/sbin/mountall -l <Return>
```

6. Mount the CD.

```
# mkdir -p /cdrom/cdrom0 <Return> (*1)
# /usr/sbin/mount -F hsfs -o ro /dev/dsk/c0t4d0s2 /cdrom/cdrom0 <Return> (*2)
```

(*1) Checks if "/cdrom/cdrom0" directory exists and creates accordingly.

(*2) Since the underlined device name is different according to the machine environment, please confirm it.

7. Execute the pkgadd(1M) command. Install the FJSVsdxiom package.

```
# pkgadd -d /cdrom/cdrom0/Solaris/GDS_IOMonitor FJSVsdxiom <Return>
```


Follow the interactive process as instructed.

```
Processing package instance <FJSVsdxiom> from </cdrom/cdrom0/Solaris/GDS_IOMonitor>

SDX/G I/O Monitor Option License(sparc) 4.5.0
:
Do you want to continue with the installation of <FJSVsdxiom> [y,n,?] y <Return>
:
Installation of <FJSVsdxiom> was successful.
```

Follow the interactive process as instructed if the package is overridden.

```
The following files are already installed on the system and are being
used by another package:
:
Do you want to install these conflicting files[y,n,?,q] y <Return>

This package contains scripts which will be executed with super-user
permission during the process of installing this package.

Do you want to continue with the installation of <FJSVsdxiom> [y,n,?] y <Return>
:
```

8. Unmount the CD, and eject CD.

```
# cd / <Return>
# /usr/sbin/umount /cdrom/cdrom0 <Return>
```

9. Execute the shutdown(1M) command to reboot the system.

```
# /usr/sbin/shutdown -y -g0 -i6 <Return>
```

3.3 Environment configurations

Configure the system environment according to the "PRIMECLUSTER Global Disk Services Configuration and Administration Guide".

Chapter 4 Uninstallation

This chapter explains the uninstallation of this software.

4.1 Uninstallation

1. Login to the system and become a root user.

```
% su <Return>
Password:password <Return>
#
```

2. If a class with the I/O Response Time Assurance Function activated exists, use the `sdxattr -C` command to deactivate the I/O Response Time Assurance Function of all classes.

```
# sdxattr -C -c <class> -a iotimeout=off <Return>
```

3. Enter into the OpenBoot environment.

```
# /usr/sbin/shutdown -y -g0 -i0 <Return>
```

4. Start the system in single user mode.

```
{0} ok boot -s <Return>
```

5. Mount the necessary file systems.

```
# /usr/sbin/zfs mount -a <Return>
```

Execute the command below if installing in the directory of a UFS file system.

```
# /usr/sbin/mountall -l <Return>
```

6. Execute the `pkgrm(1M)` command. Delete the `FJSVsdxiom` package.

```
# pkgrm FJSViom <Return>
```

7. Execute the `shutdown(1M)` command to reboot the system.

```
# /usr/sbin/shutdown -y -g0 -i6 <Return>
```