FUJITSU

PRIMECLUSTER GDS 4.3A10

Installation Guide

Linux

Preface

Purpose

This manual explains how to install PRIMECLUSTER GDS.

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, and appendices. 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.
Appendix A Troubleshooting	Explains how to address problems that occur.

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:

   - Microsoft(R) Windows(R) XP operating system is abbreviated as Windows(R) XP.

   - Microsoft(R) Windows(R) Vista operating system is abbreviated as Windows(R) Vista.

   - Microsoft(R) Windows(R) 7 operating system is abbreviated as Windows(R) 7.

   - Global Disk Services is abbreviated as GDS.

   - Cluster Foundation is abbreviated as CF.

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Basic software prerequisites have been added. Required patches have been added.	2.1	J2UL-1392-01ENZ0(01) J2UL-1392-01ENZ2(01)
Required software has been modified.	2.1	
The confirmation of the ruby package has been modified.	3.1	
Environmental settings for after the installation have been added.	3.3	
Required patches have been modified.	2.1	J2UL-1392-01ENZ0(02) J2UL-1392-01ENZ2(02)

Contents

Chapter 1 Program components

A system consists of programs, and each program is referred to as a package.
This chapter explains about the packages of which this software is composed.

PRIMEQUEST

- Red Hat Enterprise Linux 5 (for x86)

- Red Hat Enterprise Linux 5 (for Intel64)

- Red Hat Enterprise Linux 5 (for Intel64) xen kernel

- Red Hat Enterprise Linux 6 (for x86)

- Red Hat Enterprise Linux 6 (for Intel64)

1.1 Red Hat Enterprise Linux 5 (for x86) for PRIMEQUEST

No.	Component	Package	Version	Function
1	PCLsnap	FJSVpclsnap	4.3.0	Tool for collecting troubleshooting information
2	Web-Based Admin View	SMAWcj2re	1.5.0_10	GUI common framework
		FJSVwvbs	4.3.0	
		FJSVwvmpc	4.3.0	
3	Global Disk Services(GDS)	kmod-FJSVsdx-drvcore-PAE	4.2.3	High-availability volume manager
		FJSVsdx-cmd	4.2.3	
		FJSVsdx-drv	4.2.3	
		FJSVsdx-bas	4.2.3	
		FJSVsdxma-ja	4.3.1	
		FJSVsdxma-en	4.3.1	
		FJSVsdxwv	4.3.1	
		devlabel	0.48.03	

1.2 Red Hat Enterprise Linux 5 (for Intel64) for PRIMEQUEST

No.	Component	Package	Version	Function
1	PCLsnap	FJSVpclsnap	4.3.0	Tool for collecting troubleshooting information
2	Web-Based Admin View	SMAWcj2re	1.5.0_10	GUI common framework
		FJSVwvbs	4.3.0	
		FJSVwvmpc	4.3.0	
3	Global Disk Services(GDS)	kmod-FJSVsdx-drvcore	4.2.3	High-availability volume manager
		FJSVsdx-cmd	4.2.3	
		FJSVsdx-drv	4.2.3	

No.	Component	Package	Version	Function
		FJSVsdx-bas	4.2.3	
		FJSVsdxma-ja	4.3.1	
		FJSVsdxma-en	4.3.1	
		FJSVsdxwv	4.3.1	
		devlabel	0.48.03	

1.3 Red Hat Enterprise Linux 5 (for Intel64) xen kernel for PRIMEQUEST

No.	Component	Package	Version	Function
1	PCLsnap	FJSVpclsnap	4.3.0	Tool for collecting troubleshooting information
2	Web-Based Admin View	SMAWcj2re	1.5.0_10	GUI common framework
		FJSVwvbs	4.3.0	
		FJSVwvmpc	4.3.0	
3	Global Disk Services(GDS)	kmod-FJSVsdx-drvcore-xen	4.2.3	High-availability volume manager
		FJSVsdx-cmd	4.2.3	
		FJSVsdx-drv	4.2.3	
		FJSVsdx-bas	4.2.3	
		FJSVsdxma-ja	4.3.1	
		FJSVsdxma-en	4.3.1	
		FJSVsdxwv	4.3.1	
		devlabel	0.48.03	

1.4 Red Hat Enterprise Linux 6 (for x86) for PRIMEQUEST

No.	Component	Package	Version	Function
1	PCLsnap	FJSVpclsnap	4.3.0	Tool for collecting troubleshooting information
2	Web-Based Admin View	SMAWcj2re	1.5.0	GUI common framework
		FJSVwvbs	4.3.0	
		FJSVwvmpc	4.3.0	
3	Global Disk Services(GDS)	kmod-FJSVsdx-drvcore	4.3.1	High-availability volume manager
		FJSVsdx-cmd	4.3.1	
		FJSVsdx-drv	4.3.1	
		FJSVsdx-bas	4.3.1	
		FJSVsdxma-ja	4.3.1	
		FJSVsdxma-en	4.3.1	

No.	Component	Package	Version	Function
		FJSVsdxwv	4.3.1	
		devlabel	0.48.03	

1.5 Red Hat Enterprise Linux 6 (for Intel64) for PRIMEQUEST

No.	Component	Package	Version	Function
1	PCLsnap	FJSVpclsnap	4.3.0	Tool for collecting troubleshooting information
2	Web-Based Admin View	SMAWcj2re	1.5.0	GUI common framework
		FJSVwvbs	4.3.0	
		FJSVwvmpc	4.3.0	
3	Global Disk Services(GDS)	kmod-FJSVsdx-drvcore	4.3.1	High-availability volume manager
		FJSVsdx-cmd	4.3.1	
		FJSVsdx-drv	4.3.1	
		FJSVsdx-bas	4.3.1	
		FJSVsdxma-ja	4.3.1	
		FJSVsdxma-en	4.3.1	
		FJSVsdxwv	4.3.1	
		devlabel	0.48.03	

Chapter 2 Operation Environment

This chapter explains the operation environment of this software.

2.1 Software environment

1. Basic software prerequisites

   Install the following software product:

No.	Basic Software	Remarks
1	Red Hat Enterprise Linux 5.3 (for x86)	Supports kernel-2.6.18-128.el5PAE
2	Red Hat Enterprise Linux 5.4 (for x86)	Supports kernel-2.6.18-164.el5PAE
3	Red Hat Enterprise Linux 5.5 (for x86)	Supports kernel-2.6.18-194.el5PAE
4	Red Hat Enterprise Linux 5.6 (for x86)	Supports kernel-2.6.18-238.el5PAE
5	Red Hat Enterprise Linux 5.7 (for x86)	Supports kernel-2.6.18-274.el5PAE
6	Red Hat Enterprise Linux 5.8 (for x86)	Supports kernel-2.6.18-308.el5PAE
7	Red Hat Enterprise Linux 6 (for x86)	Supports kernel-2.6.32-71.el6
8	Red Hat Enterprise Linux 6.1 (for x86)	Supports kernel-2.6.32-131.0.15.el6
9	Red Hat Enterprise Linux 6.2 (for x86)	Supports kernel-2.6.32-220.4.1.el6 (*1)
10	Red Hat Enterprise Linux 5.3 (for Intel64)	Supports kernel-2.6.18-128.el5, kernel-2.6.18-128.el5xen
11	Red Hat Enterprise Linux 5.4 (for Intel64)	Supports kernel-2.6.18-164.el5, kernel-2.6.18-164.el5xen
12	Red Hat Enterprise Linux 5.5 (for Intel64)	Supports kernel-2.6.18-194.el5, kernel-2.6.18-194.el5xen
13	Red Hat Enterprise Linux 5.6 (for Intel64)	Supports kernel-2.6.18-238.el5, kernel-2.6.18-238.el5xen
14	Red Hat Enterprise Linux 5.7 (for Intel64)	Supports kernel-2.6.18-274.el5, kernel-2.6.18-274.el5xen
15	Red Hat Enterprise Linux 5.8 (for Intel64)	Supports kernel-2.6.18-308.el5, kernel-2.6.18-308.el5xen
16	Red Hat Enterprise Linux 6 (for Intel64)	Supports kernel-2.6.32-71.el6
17	Red Hat Enterprise Linux 6.1 (for Intel64)	Supports kernel-2.6.32-131.0.15.el6
18	Red Hat Enterprise Linux 6.2 (for Intel64)	Supports kernel-2.6.32-220.4.1.el6 (*1)

   (*1) Please apply errata with reference to "4. Required patches".

For the supported versions of the kernel, please contact your local Fujitsu sales representative.

2. Required software

To operate this software, the following software products are required:

No.	Software	Package	Version and/or level	Remarks
1	Windows(R) XP, Windows(R) Vista, Windows(R) 7			Required to use as a client of Web-Based Admin View.
2	J2SE(TM) Runtime Environment		6	Required to use Web-Based Admin View. The use of the latest version is recommended. Version "6u25" is included in the CD.
3	Microsoft Internet Explorer		6.0 7 8 9	To use Web-Based Admin View, one of them is required. You can download from the site of the software company.

3. Exclusive software

None.

4. Required patches

No.	Software	ID/PTF	Remark
1	Red Hat Enterprise Linux 6.2	RHSA-2012:0052-1 or later	Please apply to all the OS's where this software is installed. In the KVM environment, whether this software is installed or not on the host OS, be sure to apply this patch to the host OS.

2.2 Hardware environment

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

1. Memory

1024MB or more of memory is required.

2. Required hardware

None.

3. Related hardware

No.	Machine	Model	Remark
1	Personal Computer	FM-V, etc	Required to use as a client of Web-Based Admin View.

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)	Remarks
1	/	0.1	
2	/usr	0.3	
3	/var/opt	1.8	
4	/etc	0.1	
5	/etc/opt	10.0	
6	/opt	82.0	

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	55	GDS shared class is configured.

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	84	GDS shared class is configured.

Chapter 3 Installation

This chapter explains the installation of this software.

You can install this software on each node where basic and required software is installed. For details about error messages during installation, see "Appendix A Troubleshooting".

3.1 Preparations

1. Time required

   It takes approximately 15 minutes to install this software.

2. Kernel header

   Before installing this software, it is necessary to install the kernel header that supports OS of the system. Check if the kernel header is installed on the system by executing the following command:

   ```
   Red Hat Enterprise Linux 5 (for x86)
   ```

   ```
   # rpm -qi kernel-PAE-devel <Return>
   ```

   ```
   Red Hat Enterprise Linux 5 (for Intel64)
   Red Hat Enterprise Linux 6 (for x86)
   Red Hat Enterprise Linux 6 (for Intel64)
   ```

   ```
   # rpm -qi kernel-devel <Return>
   ```

   ```
   Red Hat Enterprise Linux 5 (for Intel64) xen kernel
   ```

   ```
   # rpm -qi kernel-xen-devel <Return>
   ```

   If the command encounters an error, or the kernel source version different than the system OS, install the kernel source according to the OS document.

3. System environment check

   1. Check if you have sufficient free space on your disk. For the size of the disk, see "2.3 Static disk resources". If there is not enough free disk space, set the disk partition configuration again.

   2. To install Web-Based Admin View, it is necessary to modify the IP address of the admin LAN for Web-Based Admin View and its corresponding host name, and the host name corresponding to "127.0.0.1".

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

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

      2. Delete the host name allocated to "127.0.0.1" using vi(1) and allocate it to the IP address of the admin LAN.

         ```
         Before change)
         ```

         ```
         # cat /etc/hosts <Return>
         # Do not remove the following line, or various programs
         # that require network functionality will fail.
         127.0.0.1       host-name localhost.localdomain localhost
         ```

         ```
         After change)
         ```

         ```
         # cat /etc/hosts <Return>
         # Do not remove the following line, or various programs
         # that require network functionality will fail.
         ```

```
127.0.0.1        localhost.localdomain localhost
IP-Address       host-name
```

3. System disk mirroring using GDS requires UEFI boot system as a premise.
   Please use ServerView Installation Manager(SVIM) V10.11.06 or later for installing the operating system.

4. Package check

   1. Check if the package is installed on the system by executing the following command:

      ```
      # rpm -qi compat-libstdc++-33 <Return>
      ```

      In case of Red Hat Enterprise Linux 6 (for Intel64), also check if the following package is installed on the system by executing below command:

      ```
      # rpm -qi ruby <Return>
      ```

      If the command encounters an error, install the package from CD-ROM of the OS.

   2. Compiler(gcc) installation

      Before installing this software, check that the gcc package is installed and that the version of the package is the same as the version of gcc that compiles the kernel.
      Check the version of the gcc package by executing the following command:

      ```
      # gcc --version <Return>
      gcc (GCC) 4.4.4 20100726 (Red Hat 4.4.4-13)
      ```

      Check the version of gcc that compiles the running kernel by executing the following command:

      ```
      # cat /proc/version <Return>
      Linux version 2.6.32-71.el6.x86_64 (mockbuild@x86-007.build.bos.
      redhat.com) (gcc version 4.4.4 20100726 (Red Hat 4.4.4-13) (GCC) )
      #1 SMP Wed Sep 1 01:33:01 EDT 2010
      ```

      The first and second numbers of the version (e.g. "4.4" for "4.4.4") must be the same between both gcc.

5. Patch download

   Before installing this software, download the latest PRIMECLUSTER patch by UpdateSite format and update information file from Updatesite.

3.2 Installation

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

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

2. The system is changed to the single user mode.

   ```
   # shutdown now <Return>
   ```

3. Insert CD in the CD-ROM drive.

   ```
   # mount /media/cdrom <Return>
   ```

   ```
   <CDROM_DIR> will be used as the mount point.
   ```

4. Execute the CLI installer. When the package is already installed, it is a same procedure.

   ```
   # cd <CDROM_DIR>/Tool <Return>
   # ./cluster_install -e PCL-GDS <Return>

   Installation of PRIMECLUSTER started.
   ```

```
        .
        .
The installation finished successfully.
```

5. Set the Java_home environment variable of Web-Based Admin View.

```
# /etc/opt/FJSVwvbs/etc/bin/wvSetparam java_home \
/opt/SMAW/SMAWcj2re/jre <Return>
```

\ indicates non-breaking.

6. Eject CD.

```
# cd / <Return>
# umount /media/cdrom <Return>
# eject <Return>
```

7. Please apply the patch for PRIMECLUSTER.

Please refer to the update information file of each patch for installation instructions and points of concern, etc.

8. Reboot the system by executing the shutdown(8) command.

```
# shutdown -r now <Return>
```

3.3 Environment configuration

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

If you register EMC Symmetrix disks to GDS, execute the following settings first.

1. Modify the /etc/opt/FJSVsdx/sdx.cf file using the vi(1) command.

If the file contains the entry "SDX_UDEV_USE=on", change the value from "on" to "off." Otherwise, add the entry "SDX_UDEV_USE=off" in the file.

```
# vi /etc/opt/FJSVsdx/sdx.cf <Return>
...
SDX_UDEV_USE=off
...
```

2. Reboot the system.

```
# shutdown -r now <Return>
```

Chapter 4 Uninstallation

This chapter explains the uninstallation of this software.

4.1 Preparations

1. Uninstall GDS Snapshot if it is installed on the system. For information on how to uninstall GDS Snapshot, refer to the "Installation Guide for PRIMECLUSTER(TM) GDS Snapshot".

2. Before uninstalling, if you are applying patch for PRIMECLUSTER by UpdateSite format, remove them by UpdateAdvisor (middleware).
For details, see help information on UpdateAdvisor(middleware) and the update information file of the patch.

4.2 Uninstallation

1. Login to the system as a root user.

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

2. If you are using GDS, cancel the GDS settings. For details see the "PRIMECLUSTER Global Disk Services Configuration and Administration Guide".

3. Boot the system in single user mode.

```
# shutdown now <Return>
```

4. If you are using GDS, check the file in the /dev/sfdsk directory. If there are other files than _adm, _diag, _sysadm, and _sysdiag, delete them.

5. Insert CD and mount the CD-ROM device.

```
# mount /media/cdrom <Return>
```

   <CDROM_DIR> will be used as the mount point.

6. Execute the CLI uninstaller.

```
# cd <CDROM_DIR>/Tool <Return>
# ./cluster_uninstall -e PCL-GDS <Return>
Are you sure to remove PRIMECLUSTER from your system (y or n) ? y <Return>


  .
  .


The uninstallation finished successfully.
```

   If the following message appears and uninstallation fails, take corrective action according to "A.2.4 When "following class(es) exist:" appears and uninstallation fails" appears and uninstallation fails " then perform step 6 again.

```
ERROR: there exists GDS object(s)
Uninstallation failed.
```

7. Eject CD, then reboot the system by executing the "shutdown(8)" command.

```
# cd / <Return>
# umount /media/cdrom <Return>
# eject <Return>
# shutdown -r now <Return>
```

![Note icon] **Note**

. . . .

- After the uninstallation of this software, the /etc/opt/FJSVsdx/sysdb.d.tmp directory may remain undeleted. Even if this directory remains, there will be no effect on the system operation. If you want to delete it, use the following command.

```
# cd /etc/opt <Return>
# rm -rf FJSVsdx <Return>
```

. . . .

Appendix A Troubleshooting

This chapter explains how to address problems that occur.

A.1 CLI installer

This section explains CLI installer.

A.1.1 Log file

The CLI installer log including the rpm(8) command output will be saved in the following log file:

- /var/log/install/cluster_install

A.1.2 Information messages

INFO: The installation process stopped by user request

Description

Installation process was stopped according at user's request.

Workaround

Execute the command again.

INFO: no package to update

Description

Since the package same as that in CD or newer than that in CD is installed, the package in CD cannot be installed.

Workaround

According to the procedure of "4.2 Uninstallation", execute the command again after removing PRIMECLUSTER from the system.

A.1.3 Error messages

Installation failed

Description

Installation failed.

Workaround

Remove the cause of the problem referring to the error message and log file then execute the command again.

ERROR: syntax error

Description

An incorrect option was specified.

Workaround

Correct the option then execute the command again.

ERROR: syntax error (*<PSET> <PLAT>*)

Description

An incorrect option was specified.
Installation of the product set *<PSET>* is not supported for this software.

Workaround

Check if the command option is correct. If it is, check whether the environment meets operating conditions as prescribed in "Chapter 2 Operation Environment".

ERROR: </usr/sbin/dmidecode> command not found

Description

The command </usr/sbin/dmidecode> not installed on the system.

Workaround

Check if the OS is installed with a right procedure.

ERROR: to use this installer you will need to be the root user.

Description

The command was executed by a non-root user.

Workaround

Execute the command using root user access privileges.

ERROR: /tmp needs *TMP_LEAST* KB at least

Description

There is not enough free space on the /tmp file system.

Workaround

Reserve at least *TMP_LEAST* KB on the /tmp file system then execute the command again.

ERROR: /var needs *VAR_LEAST* KB at least

Description

There is not enough free space on the /var file system.

Workaround

Reserve at least V*AR_LEAST* KB on the /var file system then execute the command again.

ERROR: /tmp not writable

Description

Creation of a temporary file in /temp failed.

Workaround

After /temp is made writable, execute the command again.
Example: If the file system including /temp is mounted as a read-only file system, make /temp writable by executing "mount -o remount <mount point of the file system including /tmp>".

ERROR: CF driver is loaded

Description

The CF driver is loaded.

Workaround

Unload the CF driver then execute the command again. For details, see "PRIMECLUSTER Cluster Foundation Configuration and Administration Guide".

ERROR: the installation process is running now

Description

The other installation process is running.

Workaround

Wait until the other installation process is completed then execute the command again.

Note

If this message appears although the other installation process is not being executed, delete the "/tmp/cluster_install" and "/tmp/cluster_uninstall" flag files then execute the command again.

ERROR: platform *<PLAT>* not supported

Description

This software is not supported.

Workaround

Check if the environment meets operating conditions as prescribed in "Chapter 2 Operation Environment". If there is nothing wrong with the environment, put down the message then contact your Fujitsu system engineers.

ERROR: product *<PROD>* on platform *<PLAT>* not supported

Description

Installation of the product set *<PROD>* is not supported for this software.

Workaround

Check if the command option is correct. If it is, then check if the environment meets operating conditions as prescribed in "Chapter 2 Operation Environment". If there is nothing wrong with the environment, put down the message then contact your Fujitsu system engineers.

ERROR: product *<PROD1>* and *<PROD2>* contains the same package *<PKG>*

Description

The products *<PROD1>* and *<PROD2>* are included in the same package *<PKG>*, so they cannot be installed at the same time.

Workaround

An option cannot be specified for the products *<PROD1>* and *<PROD2>*.

ERROR: failed: rpm *

Description

The rpm command failed.

Workaround

Remove the cause of the error referring to the log file then execute the command again.

ERROR: internal error: *

Description

An internal error occurred.

Workaround

Put down the message then contact your Fujitsu system engineers.

Please see the following log file.
/var/log/install/cluster_install

Description

See the /var/log/install/cluster_install log file.

Workaround

Remove the cause of the error referring to the log file then execute the command again.

A.1.4 When segmentation violation causes an installation failure

If segmentation violation is due to the rpm(8) command, take the following corrective steps. If the problem still remains unresolved, contact Fujitsu customer support engineers.

1. Reboot the system by executing the shutdown(8) command.

```
# shutdown -r now <Return>
```

2. Delete PRIMECLUSTER from the system according to "4.2 Uninstallation".

3. Execute the following command.

```
# rpm --rebuilddb <Return>
```

4. Install PRIMECLUSTER again.

A.2 CLI uninstaller

This section explains CLI uninstaller.

A.2.1 Log file

Logs of the CLI uninstaller including the output of the rpm(8) command will be saved into the log file below:

- /var/log/install/cluster_uninstall

A.2.2 Information messages

INFO: no package to uninstall

Description

Currently, no packages that need to be uninstalled are installed on the system.

Workaround

None.

INFO: The uninstallation process stopped by user request

Description

The uninstallation process has been stopped at user's request.

Workaround

If you want to continue the uninstallation process, execute the command again.

A.2.3 Error messages

Uninstallation failed.

Description

Uninstallation failed.

Workaround

Remove the cause of the error referring to the log file or error message then execute the command again.

ERROR: syntax error

Description

The incorrect option was specified.

Workaround

Correct the option and execute the command again.

ERROR: syntax error (*<PSET> <PLAT>*)

Description

An incorrect option was specified.
The product set *<PSET>* package is invalid.

Workaround

Run the command with the right option.

ERROR: to use this uninstaller you will need to be the root user

Description

The command was executed by a non-root user.

Workaround

Execute the command with root user access privileges.

ERROR: /tmp needs *TMP_LEAST* KB at least

Description

There is not enough free space on the /tmp file system.

Workaround

Reserve at least *TMP_LEAST*KB on the /tmp file system then execute the command again.

ERROR: /tmp not writable

Description

Creation of a temporary file in /temp failed.

Workaround

After /temp is made writable, execute the command again.
Example: If the file system including /temp is mounted as a read-only file system, make /temp writable by executing "mount -o remount <mount point of the file system including /tmp>".

ERROR: /var needs *VAR_LEAST* KB at least

Description

There is not enough free space on the /var file system.

Workaround

Reserve at least *VAR_LEAST*KB on the /var file system then execute the command again.

ERROR: CF driver is loaded

Description

The CF driver is loaded.

Workaround

Unload the CF driver then execute the command again. For details see the "PRIMECLUSTER Cluster Foundation Configuration and Administration Guide".

ERROR: there exists GDS object(s)

Description

Some GDS objects are not deleted.

Workaround

Delete all the GDS objects then execute the command again.

ERROR: the installation process is running now

Description

The other installation process is being executed.

Workaround

Wait until the other installation process is completed then execute the command again.

Note

If this message appears although the other installation process is not being executed, delete the "/tmp/cluster_install" and "/tmp/cluster_uninstall" flag files then execute the command again.

ERROR: product *<PROD>* on platform *<PLAT>* not supported

Description

The product set *<PROD>* package is invalid.

Workaround

Specify a correct command option then execute the command again.

ERROR: failed: rpm *

Description

The rpm command failed.

Workaround

Remove the cause of the error referring to the log file then execute the command again.

ERROR: internal error: *

Description

An internal error occurred.

Workaround

Put down the message then contact your Fujitsu system engineers.

Please see the following log file.
/var/log/install/cluster_uninstall

Description

See the /var/log/install/cluster_uninstall log file.

Remove the cause of the error referring to the log file then execute the command again.

A.2.4 When "following class(es) exist:" appears and uninstallation fails

If the following message appears and uninstallation fails, take the corrective steps described as the resolution below.

Message

ERROR: there exists GDS object(s)
Uninstallation failed.

Resolution

1. Check whether there are GDS classes using the sdxinfo command. If any, delete the classes. For the class deletion method, see the "PRIMECLUSTER Global Disk Services Configuration and Administration Guide".

2. Check the file in the /etc/opt/FJSVsdx/sysdb.d directory using the ls(1) command. If there are other files than class.db, delete the files by executing the rm(1) command.

3. Check the file in the /dev/sfdsk directory using the ls(1) command. If there are other files or directories than _adm, _diag, _sysadm, and _sysdiag, delete the files and the directories.

4. Perform the procedure of "4.2 Uninstallation" from step 5 again.

A.3 When OS has been reinstalled on a mirrored system disk

Remove the mirror setting according to the following procedures.

Procedures

1. Delete the GDS configuration data from the EFI environment setting.

```
# cd /sys/firmware/efi/vars/ <Return>
# cat sysvol-db-*/raw_var > del_var <Return>
# cat sysvol-db-*/data <Return>
=> Please confirm that nothing is output
```

2. Delete SDX disk entries from the EFI boot manager menu.

    1. Check the current EFI boot manager entries

    ```
    # efibootmgr <Return>
    BootCurrent: 0000
    Timeout: 5 seconds
    BootOrder: 0001,0002,0000
    Boot0000* sda
    Boot0001* RootDisk1
    Boot0002* RootDisk2
    ```

    In this example, entries RootDisk1 and RootDisk2 are the SDX entries.

    2. Remove the SDX entries

    ```
    # efibootmgr -B -b 0001 <Return>
    BootCurrent: 0000
    Timeout: 5 seconds
    BootOrder: 0002,0000
    Boot0000* sda
    Boot0002* RootDisk2
    # efibootmgr -B -b 0002 <Return>
    BootCurrent: 0000
    Timeout: 5 seconds
    ```

```
BootOrder: 0000
Boot0000* sda
```

3. Reboot the system

4. Install the PRIMECLUSTER and reconfigure the mirroring environment.

📒 Note

- If the following error message is shown when the system disk is mirrored, delete the GDS private slice according to the following example. Then retry to mirror it.

```
SDX:sdxdisk: ERROR: physical_slice_name is private slice
```

<Example> When the physical slice name is sda8:

1. Execute parted command.

```
# parted /dev/sda <Return>
```

📇 See

For details of parted command, See the manual of parted(8).

2. Display the partition table using the print subcommand, and find out which is the private slice.

```
(parted) print <Return>
Disk geometry for /dev/sda: 0.000-35046.525 megabytes
Disk label type: gpt
Minor    Start        End      Filesystem  Name         Flags
1          0.017    256.016    fat16                    boot
2        256.017  20736.016    ext3
3      20736.017  35072.016    linux-swap
4      35072.017  45312.016    ext3
5      45312.017  55552.016    ext3
6      55552.017  65792.016    ext3
7      65792.017  69888.016    ext3
8      69888.017  69898.016       <== Private slice(always 10MB)
```

3. Delete the private slice.

```
(parted) rm 8 <Return>
```

4. Finish parted.

```
(parted) quit <Return>
```

- If the following error message is shown when GDS objects are configured, delete the GDS private slice according to the following example. Then retry to configure them.

```
SDX:sdxdisk: ERROR: physical_disk_name: already exists in another class
```

<Example> When the physical disk name is sdb:

```
# /etc/opt/FJSVsdx/bin/sdxrstlabel -d sdb <Return>
When the above operation fails, remove the private slice usinge dd command.
(dd if=/dev/zero of=/dev/sdb seek=16 count=1)
```