Fujitsu Storage
ETERNUS AF, ETERNUS DX

Configuration Guide -Server Connection-

(Fibre Channel/FCoE/iSCSI/SAS) for Linux
device-mapper multipath

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Preface

This manual briefly explains the operations that need to be performed by the user in order to connect an ETERNUS AF/DX to a server running Linux or Oracle Linux via Fibre Channel/FCoE/iSCSI/SAS interface and using the device-mapper multipath.

This manual should be used in conjunction with any other applicable user manuals, such as those for the ETERNUS AF/DX, server, OS, drivers, and interface card (Fibre Channel card, iSCSI card, SAS card, FCoE card) that is used.

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 AF/DX.

The Contents and Structure of this Manual

This manual is composed of the following four chapters.

This chapter describes how to connect the ETERNUS AF/DX to a server.

This chapter describes how to set up a multipath environment, and the points to be checked after setup when the server is running RHEL9, RHEL8, RHEL7, RHEL6, or Oracle Linux.

This chapter describes how to set up a multipath environment, and the points to be checked after setup when the server is running RHEL5.

This chapter describes how to set up a multipath environment, and the points to be checked after setup when the server is running SLES15, SLES12, or SLES11.

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Workflow

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Reference list

This manual provides a different section for each OS vendor and version. Refer to the appropriate chapter for the OS or the version that is being used.

OS	Reference
For Red Hat Enterprise Linux 9, Red Hat Enterprise Linux 8, Red Hat Enterprise Linux 7, Red Hat Enterprise Linux 6, or Oracle Linux	"Chapter 2 For RHEL9, RHEL8, RHEL7, RHEL6, or Oracle Linux" (page 6)
Red Hat Enterprise Linux 5	"Chapter 3 For RHEL5" (page 13)
SUSE Linux Enterprise Server 11 or later	"Chapter 4 For SLES11 or later" (page 17)

Chapter 2
For RHEL9, RHEL8, RHEL7, RHEL6, or Oracle Linux

This chapter describes how to set up a multipath environment, and the points to be checked after setup when the server is running Red Hat Enterprise Linux 9, Red Hat Enterprise Linux 8, Red Hat Enterprise Linux 7, Red Hat Enterprise Linux 6, or Oracle Linux.

2.1 Setting Up the device-mapper multipath

Set up the multipath environment.

2.1.1 Preparation

device-mapper multipath uses Red Hat Package Manager (RPM) packages.

If the RPM versions are not listed in the Server Support Matrix, use the RPM supplied as standard in the OS.

Check that the "device-mapper-multipath" package is installed. If this package is not installed, install the package before setting up a multipath configuration.

2.1.2 Editing "/etc/multipath.conf"

Edit the device-mapper multipath configuration file.

Create a configuration file as follows.

> **Procedure**

1   Execute the "mpathconf" command.

    Executing this command registers multipath daemon in Services and creates the configuration file (/etc/multipath.conf).

```
# mpathconf --enable
```

    If the configuration file is not created when the command above is executed, copy the "/usr/share/doc/device-mapper-multipath-X.X.X/multipath.conf" file in the "/etc" directory and then execute the "mpathconf--enable" command again.

2   If any internal disks or other devices are to be excluded from the multipath configuration, specify the excluded devices in the "blacklist" section. If required, refer to the Red Hat web-site for details. Also refer to the Red Hat web-site for reference purposes when Oracle Linux is used.

```
blacklist {
}
```

3   Confirm that the following description is present.

```
## Use user friendly names, instead of using WWIDs as names.
defaults {
                user_friendly_names yes   (*1)
                queue_without_daemon no   (*2)
#               find_multipaths yes       (*3)
}
```

*1: For "user_friendly_names", "no" can be specified as necessary for middleware or applications.

*2: Add the "queue_without_daemon no" line for iSCSI connections.

*3: If there is a "find_multipaths yes" line, add a "#" to the beginning of the line to comment out the line.

> ▶ **Caution**

Enter a space between "defaults" and "{".

4   Add the following lines at the end of the file.

• For ETERNUS AF/DX storage systems

(Example: Connecting the ETERNUS DX60 S4)

```
devices {
        device {
                vendor                  "FUJITSU"
                product                 "ETERNUS_DXL"
                prio                    alua
                path_grouping_policy    group_by_prio
                path_selector           "round-robin 0"
                failback                immediate
                no_path_retry           0 (*1)
                path_checker            tur
                dev_loss_tmo            2097151 (*2)
                fast_io_fail_tmo        1
        }
}
```

*1: When using the Storage Cluster function with an FC connection, or an ETERNUS AF series or an ETERNUS DX S5/S4/S3 series with a 10Gbit/s iSCSI connection, specify "no_path_retry 10".

When using the Storage Cluster function with an iSCSI connection, specify "no_path_retry 20".

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*2:   If the distribution is Oracle Linux 5.6 UEK or earlier, or Oracle Linux 5.6 or earlier, add-
ing the "dev_loss_tmo" line is not required.

▷ **Caution**

- Enter a space between "devices" and "{".

- Enter a space between "device" and "{".

- The "dev_loss_tmo" parameter value is not applied correctly when a Brocade Fibre
  Channel card is used. This may cause the device file to be cleared if the ETERNUS
  AF/DX is turned off due to a power failure. If this occurs, the server may have to be
  rebooted.

- The ETERNUS DX8100 S3 does not support Oracle Linux.

The "product" value varies depending on the ETERNUS AF/DX that is to be connected.

Refer to the following table for the appropriate value.

ETERNUS AF/DX to be used	"product" value
ETERNUS AF150 S3/AF250 S3, ETERNUS AF250 S2, ETERNUS AF250, ETERNUS DX60 S5/DX100 S5/DX200 S5, ETERNUS DX60 S4/DX100 S4/DX200 S4, ETERNUS DX60 S3/DX100 S3/DX200 S3, ETERNUS DX60 S2/DX80 S2/DX90 S2, ETERNUS DX200F	ETERNUS_DXL
ETERNUS AF650 S3, ETERNUS AF650 S2, ETERNUS AF650, ETERNUS DX600 S6, ETERNUS DX500 S5/DX600 S5, ETERNUS DX500 S4/DX600 S4, ETERNUS DX500 S3/DX600 S3	ETERNUS_DXM
ETERNUS DX900 S6, ETERNUS DX900 S5, ETERNUS DX8900 S6, ETERNUS DX8900 S4, ETERNUS DX8100 S3/DX8700 S3/DX8900 S3	ETERNUS_DXH
ETERNUS DX400 S2 series	ETERNUS_DX400
ETERNUS DX8000 S2 series	ETERNUS_DX8000

End of procedure

2.1.3   Enabling the device-mapper multipath

Enable the device-mapper multipath.

- For Red Hat Enterprise Linux 9, Red Hat Enterprise Linux 8, Red Hat Enterprise Linux 7, or Ora-
  cle Linux 7

Execute the following command.

Check that the device-mapper multipath can be started normally after executing the command.

```
# systemctl start multipathd.service
```

When the device-mapper multipath has already started, reload device-mapper multipath.

```
# systemctl reload multipathd.service
```

- For Red Hat Enterprise Linux 6 or Oracle Linux 6

Execute the following command:

Check that the device-mapper multipath can be started normally after executing the command.

```
# service multipathd start
```

When the device-mapper multipath has already started, reload device-mapper multipath.

```
# service multipathd reload
```

2.1.4   Rebooting the Linux Server

Reboot the Linux server.

Example:

```
# shutdown -r now
```

▶ **Caution**

For the RHEL9 series, RHEL8 series, or RHEL7 series, if multipathing is set for a large number of LUNs, the following message will appear in the console screen during a reboot and the OS may start in the emergency mode.

```
Timed out waiting for device dev-mapper-rhel\x2dhome.device.
```

If this is the case, extend the timeout value (the default is 90 seconds) of the device unit that is generated by systemd.

The following example shows a timeout value (JobTimeoutUSec) set to 600 seconds. If a timeout value of 600 seconds is insufficient, change it according to the environment.

1   Perform the following settings.

```
# mkdir "/etc/systemd/system/dev-mapper-rhel\x2dhome.device.d"
# cat > "/etc/systemd/system/dev-mapper-rhel\x2dhome.device.d/99-timeout.conf" <<EOF
> [Unit]
> JobTimeoutSec=600
> EOF

# systemctl daemon-reload
```

2   Check the setting value.

```
# systemctl --no-pager show -p JobTimeoutUSec "dev-mapper-rhel\x2dhome.device
"
JobTimeoutUSec=10min
#
```

3   Reboot the Linux server.

2.2　Checking the device-mapper multipath

After the device-mapper multipath is enabled, confirm the settings.

2.2.1　Recognizing the Post device-mapper multipath LUNs

Check the device file created by the device-mapper multipath.

Example:

```
# ls -l /dev/mapper/
total 0
crw-rw----. 1 root root 10, 58 Apr 14 09:01 control
lrwxrwxrwx. 1 root root       7 Apr 14 09:01 mpathh -> ../dm-1
lrwxrwxrwx. 1 root root       7 Apr 14 09:01 mpathi -> ../dm-0
lrwxrwxrwx. 1 root root       7 Apr 14 09:01 mpathj -> ../dm-5
lrwxrwxrwx. 1 root root       7 Apr 14 09:01 mpathk -> ../dm-6
lrwxrwxrwx. 1 root root       7 Apr 14 09:01 mpathl -> ../dm-3
lrwxrwxrwx. 1 root root       7 Apr 14 09:01 mpathm -> ../dm-2
lrwxrwxrwx. 1 root root       7 Apr 14 09:01 mpathn -> ../dm-4
```

2.2.2　Checking the device-mapper multipath Status and Created Devices

Check the path status using the "multipath -ll" command. Check that the recognized status of the devices for all the paths that are assigned to the server is normal.

- Multipath is in normal status (This example shows when two paths are used to connect to the ETERNUS DX60 S4)

Check that multipathing is configured in the two block devices and "active ready" is displayed for each path status.

```
# multipath -ll

mpathh (3600000e00d000000001000000200000) dm-1 FUJITSU,ETERNUS_DXL
size=2.0G features='1 queue_if_no_path' hwhandler='0' wp=rw
|-+- policy='round-robin 0' prio=50 status=active
| `- 1:0:0:0 sdb 8:16  active ready running
`-+- policy='round-robin 0' prio=10 status=e
  `- 2:0:0:0 sdi 8:12  active ready running
```

When the path status is normal, "active ready" is displayed.

Two block device names are displayed for a two-path configuration.

- Multipath (the "2:0:0:X" side) is in error status (This example shows when two paths are used to connect to the ETERNUS DX60 S4)

```
# multipath -ll

mpathh (3600000e00d000000000100000200000) dm-1 FUJITSU,ETERNUS_DXL
size=2.0G features='1 queue_if_no_path' hwhandler='0' wp=rw
`-+- policy='round-robin 0' prio=50 status=active
  `- 1:0:0:0 sdb 8:16  active ready running
```

The status for the failed path may not be displayed depending on the OS version.

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Chapter 3
For RHEL5

This chapter describes how to set up a multipath environment, and the points to be checked after setup when the server is running Red Hat Enterprise Linux 5.

3.1 Setting Up the device-mapper multipath

Set up the multipath environment.

3.1.1 Preparation

device-mapper multipath uses Red Hat Package Manager (RPM).

If the RPM versions are not listed in the Server Support Matrix, use the RPM supplied as standard in the OS.

3.1.2 Editing "/etc/multipath.conf"

Edit the device-mapper multipath configuration file.

Create a configuration file as follows.

Procedure

1 Comment out the following three lines in "/etc/multipath.conf".

```
# blacklist {
# devnode "*"
# }
```

If any internal disks or other devices are to be excluded from the multipath configuration, specify the excluded devices in the "blacklist" section. If required, refer to the Red Hat web-site for details.

2 Confirm that the following description is present.

```
## Use user friendly names, instead of using WWIDs as names.
defaults {
        user_friendly_names yes
}
```

▶ **Caution**

Enter a space between "defaults" and "{".

3   Add the following lines at the end of the file.

- For ETERNUS AF/DX storage systems

  (This example is for the ETERNUS DX60 S4)

```
devices {
        device {
                vendor                  "FUJITSU"
                product                 "ETERNUS_DXL"
                prio_callout            "/sbin/mpath_prio_alua %d"
                path_grouping_policy    group_by_prio
                path_selector           "round-robin 0"
                failback                immediate
                no_path_retry           10
                path_checker            tur
                }
        }
```

▶ **Caution**

- Enter a space between "devices" and "{".
- Enter a space between "device" and "{".

The "product" value varies depending on the ETERNUS AF/DX that is to be connected.
Refer to the following table for the appropriate value.

ETERNUS AF/DX to be used	"product" value
ETERNUS AF150 S3/AF250 S3, ETERNUS AF250 S2, ETERNUS AF250, ETERNUS DX60 S5/DX100 S5/DX200 S5, ETERNUS DX60 S4/DX100 S4/DX200 S4, ETERNUS DX60 S3/DX100 S3/DX200 S3, ETERNUS DX60 S2/DX80 S2/DX90 S2, ETERNUS DX200F	ETERNUS_DXL
ETERNUS AF650 S3, ETERNUS AF650 S2, ETERNUS AF650, ETERNUS DX600 S6, ETERNUS DX500 S5/DX600 S5, ETERNUS DX500 S4/DX600 S4, ETERNUS DX500 S3/DX600 S3	ETERNUS_DXM
ETERNUS DX900 S6, ETERNUS DX900 S5, ETERNUS DX8900 S6, ETERNUS DX8900 S4, ETERNUS DX8100 S3/DX8700 S3/DX8900 S3	ETERNUS_DXH
ETERNUS DX400 S2 series	ETERNUS_DX400

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ETERNUS AF/DX to be used	"product" value
ETERNUS DX8000 S2 series	ETERNUS_DX8000

End of procedure

3.1.3   Enabling the device-mapper multipath

Enable the device-mapper multipath, using the following commands.

```
# multipath -v 1
# chkconfig --add multipathd
# chkconfig multipathd on
# multipath
# /etc/init.d/multipathd start
```

3.1.4   Rebooting the Linux Server

Reboot the Linux server.

Example:

```
# shutdown -r now
```

3.2   Checking the device-mapper multipath

After the device-mapper multipath is enabled, confirm the settings.

3.2.1   Recognizing the Post device-mapper multipath LUNs

Check the device file created by the device-mapper multipath.

Example:

```
# cd /dev/mapper
# ls -l
crw------- 1 root root  10,  63 Oct 17 17:41 control
brw-rw---- 1 root disk 253,   0 Oct 17 17:41 mpath0
brw-rw---- 1 root disk 253,   1 Oct 17 17:41 mpath1
brw-rw---- 1 root disk 253,  10 Oct 17 17:41 mpath10
brw-rw---- 1 root disk 253,  99 Oct 17 17:41 mpath100
                      :
brw-rw---- 1 root disk 253, 245 Oct 17 17:41 mpath246
brw-rw---- 1 root disk 253, 246 Oct 17 17:41 mpath247
brw-rw---- 1 root disk 253, 247 Oct 17 17:41 mpath248
brw-rw---- 1 root disk 253, 248 Oct 17 17:41 mpath249
```

3.2.2   Checking the device-mapper multipath Status and Created Devices

Check the path status using the "multipath -ll" command. Check that the recognized status of the devices for all the paths that are assigned to the server is normal.

- Multipath is in normal status (This example shows when two paths are used to connect to the ETERNUS DX60 S4)

  Check that multipathing is configured in the two block devices and "active ready" is displayed for each path status.

```
# multipath -ll
mpath2 (3600000e00d00000000000f7e00010000) dm-1 FUJITSU,ETERNUS_DXL
[size=10G][features=1 queue_if_no_path][hwhandler=0][rw]
\_ round-robin 0 [prio=50][active]
 \_ 4:0:0:1 sde 8:64 [active][ready]
\_ round-robin 0 [prio=10][enabled]
 \_ 3:0:0:1 sdc 8:32 [active][ready]
:
:
```

When the path status is normal, "[active][ready]" is displayed.

Two block device names are displayed for a two-path configuration.

- Multipath (the "3:0:0:X" side) is in error status (This example shows when two paths are used to connect to the ETERNUS DX60 S4)

```
# multipath -ll
mpath2 (3600000e00d00000000000f7e00010000) dm-1 FUJITSU,ETERNUS_DXL
[size=10G][features=1 queue_if_no_path][hwhandler=0][rw]
\_ round-robin 0 [prio=50][active]
 \_ 4:0:0:1 sde 8:64 [active][ready]
\_ round-robin 0 [prio=0][enabled]
 \_ 3:0:0:1 sdc 8:32 [failed][faulty]
:
:
```

The status for the failed path is "[failed][faulty]".

Chapter 4
For SLES11 or later

This chapter describes how to set up a multipath environment, and the points to be checked after setup when the server is running SUSE Linux Enterprise Server 15, SUSE Linux Enterprise Server 12, or SUSE Linux Enterprise Server 11.

4.1 Setting Up the device-mapper multipath

Set up the multipath environment.

4.1.1 Preparation

device-mapper multipath uses Red Hat Package Manager (RPM).

If the RPM versions are not listed in the Server Support Matrix, use the RPM supplied as standard in the OS.

4.1.2 Editing "/etc/multipath.conf"

Edit the device-mapper multipath configuration file.

Create a configuration file as follows.

Procedure

1   Copy the "/usr/share/doc/packages/multipath-tools/multipath.conf.synthetic" file to "/etc".

```
# cp /usr/share/doc/packages/multipath-tools/multipath.conf.synthetic /etc/multipath.conf
```

If the "/usr/share/doc/packages/multipath-tools/multipath.conf.synthetic" file does not exist, create the "/etc/multipath.conf" file according to Step 2.

2   Add the following lines to the file.

Add the following lines at the end of the "defaults" section.

- For SLES15 SP5

```
defaults {
        user_friendly_names no
        }
```

• For SLES15 SP4 or earlier

```
defaults {
        user_friendly_names yes
      }
```

Add the following lines at the end of the "devices" section.

(This example is for the ETERNUS DX410 S2)

```
devices {
        device {
                vendor                    "FUJITSU"
                product                   "ETERNUS_DX400"
                prio                      alua
                path_grouping_policy      group_by_prio
                path_selector             "round-robin 0"
                failback                  immediate
                no_path_retry             0 (*1)
                path_checker              tur
                dev_loss_tmo              2147483
                fast_io_fail_tmo          1
                retain_attached_hw_handler "no"
                detect_prio               "no"
              }
        }
```

*1: When using the Storage Cluster function with an FC connection, specify "no_path_re-try 10".

When using the Storage Cluster function with an iSCSI connection, specify "no_path_retry 20".

▷ **Caution**

• Enter a space between "defaults" and "{".

• Enter a space between "devices" and "{".

• Enter a space between "device" and "{".

• The "dev_loss_tmo" parameter value is not applied correctly when a Brocade Fibre Channel card is used. This may cause the device file to be cleared if the ETERNUS AF/DX is turned off due to a power failure. If this occurs, the server may have to be rebooted.

The "product" value varies depending on the ETERNUS AF/DX that is to be connected.

Refer to the following table for the appropriate value.

ETERNUS AF/DX to be used	"product" value
ETERNUS AF150 S3/AF250 S3, ETERNUS AF250 S2, ETERNUS AF250, ETERNUS DX60 S5/DX100 S5/DX200 S5, ETERNUS DX60 S4/DX100 S4/DX200 S4, ETERNUS DX60 S3/DX100 S3/DX200 S3, ETERNUS DX60 S2/DX80 S2/DX90 S2, ETERNUS DX200F	ETERNUS_DXL

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ETERNUS AF/DX to be used	"product" value
ETERNUS AF650 S3, ETERNUS AF650 S2, ETERNUS AF650, ETERNUS DX500 S5/DX600 S5, ETERNUS DX500 S4/DX600 S4, ETERNUS DX500 S3/DX600 S3	ETERNUS_DXM
ETERNUS DX900 S5, ETERNUS DX8900 S4, ETERNUS DX8700 S3/DX8900 S3	ETERNUS_DXH
ETERNUS DX400 S2 series	ETERNUS_DX400
ETERNUS DX8000 S2 series	ETERNUS_DX8000

If any internal disks or other devices are to be excluded from the multipath configuration, specify the excluded devices in the "blacklist" section. Refer to the Novell web-site for details.

> ▶ **Caution**

- For SLES12 or later, if any internal disks are to be excluded from the multipath configuration, make sure to specify the excluded devices in the "blacklist" section.
- For SLES11 SP2, the following patches (or patches that are newer than those listed below) must be applied to enable the settings. "xxx" indicates the architecture name (for example, x86).
  - kpartx-0.4.9-0.66.1.xxx.rpm
  - multipath-tools-0.4.9-0.66.1.xxx.rpm

End of procedure

4.1.3   Enabling the device-mapper multipath

Enable the device-mapper multipath.

- For SUSE Linux Enterprise Server 12 or later

1   Create an initial RAM disk.

Create an initial RAM disk image file to match the kernel being used. Refer to manuals supplied with the Fibre Channel cards for details.

2   Execute the following command.

```
# systemctl enable multipathd.service
# systemctl start multipathd.service
```

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- For SUSE Linux Enterprise Server 11

  Execute the following command.

```
# insserv boot.multipath multipathd
# chkconfig multipathd on
# chkconfig boot.multipath on
# /etc/init.d/boot.multipath start
# /etc/init.d/multipathd start
```

4.1.4   Rebooting the Linux Server

Reboot the Linux server.

Example:

```
# shutdown -r now
```

▷ **Caution**

For SLES15, the OS may not start when the system is rebooted after multipathing is config-
ured. In this case, recreate the initial RAM disk.

4.2   Checking the device-mapper multipath

After the device-mapper multipath is enabled, confirm the settings.

4.2.1   Recognizing the Post device-mapper multipath LUNs

Check the device file created by the device-mapper multipath.

Example:

```
# cd /dev/mapper
# ls -l
total 0
lrwxrwxrwx 1 root root   16 Apr 2 00:44 control -> ../device-mapper
brw------- 1 root root 253,  0 Apr 2 00:44 mpatha
brw------- 1 root root 253,  1 Apr 2 00:44 mpathb
brw------- 1 root root 253,  2 Apr 2 00:44 mpathc
brw------- 1 root root 253,  3 Apr 2 00:44 mpathd
                      :
brw------- 1 root root 253, 23 Apr 2 00:44 mpathu
brw------- 1 root root 253, 24 Apr 2 00:44 mpathv
brw------- 1 root root 253, 25 Apr 2 00:44 mpathw
brw------- 1 root root 253, 26 Apr 2 00:44 mpathx
```

4.2.2 Checking the device-mapper multipath Status and Created Devices

Check the path status using the "multipath -ll" command. Check that the recognized status of the devices for all the paths that are assigned to the server is normal.

- Multipath is in normal status (This example shows when two paths are used to connect to the ETERNUS DX410 S2)

  Check that multipathing is configured in the two block devices and "active ready" is displayed for each path status.

```
# multipath -ll
mpathb (36000b5d0006a0000006a0317000a0000) dm-2 FUJITSU,ETERNUS_DX400
size=10G features='1 queue_if_no_path' hwhandler='0' wp=rw
`-+- policy='round-robin 0' prio=150 status=
  |- 3:0:0:1 sdc 8:32 active ready running
  `- 4:0:0:1 sde 8:64 active ready running
:
:
```

When the path status is normal, "active ready" is displayed.

Two block device names are displayed for a two-path configuration.

- Multipath (the "3:0:0:X" side) is in error status (This example shows when two paths are used to connect to the ETERNUS DX410 S2)

```
# multipath -ll
mpathb (36000b5d0006a0000006a0317000a0000) dm-2 FUJITSU,ETERNUS_DX400
size=10G features='1 queue_if_no_path' hwhandler='0' wp=rw
`-+- policy='round-robin 0' prio=150 status=active
  `- 4:0:0:1 sde 8:64 active ready running
:
:
```

The status for the failed path may not be displayed depending on the OS version.

> ▶ **Caution**

If a storage system failover occurs when the storage cluster is used, the following message may be displayed for each path with the "multipath -ll" command. However, there is no actual problem with the storage system operation. Ignore the following message.

```
# multipath -ll
Jul 27 13:58:34 | sdn: couldn't get asymmetric access state
Jul 27 13:58:34 | sdc: couldn't get asymmetric access state
mpathb (36000b5d0006a0000006a0317000a0000) dm-2 FUJITSU,ETERNUS_DX
size=15G features='1 queue_if_no_path' hwhandler='0' wp=rw
|-+- policy='round-robin 0' prio=-1 status=active
| `- 6:0:0:1  sdn 8:208 active ready running
`-+- policy='round-robin 0' prio=-1 status=enabled
  `- 1:0:0:1  sdc 8:32  active ready running
```

For a two-path configuration, "couldn't get asymmetric access state" is displayed twice.

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