FUJITSU Storage
ETERNUS SF
Express V16 / Storage Cruiser V16 / AdvancedCopy Manager V16

Troubleshooting Guide

Preface

Purpose of This Document

This document describes how to deal with troubles produced when installing and using the following products.

- ETERNUS SF Express Version 16 (all levels)

- ETERNUS SF Storage Cruiser Version 16 (all levels)

- ETERNUS SF AdvancedCopy Manager Version 16 (all levels)

Conventions

- "FUJITSU Storage" and "Fujitsu Storage" are omitted from the formal names of the products and manuals.

- "FUJITSU Software" is described as "Fujitsu Software".

- The operating system names are abbreviated as follows.

Formal Name	Abbreviation	
Microsoft(R) Windows Server(R) 2022 Standard Microsoft(R) Windows Server(R) 2022 Datacenter	Windows Server 2022	Windows
Microsoft(R) Windows Server(R) 2019 Standard Microsoft(R) Windows Server(R) 2019 Datacenter	Windows Server 2019	
Microsoft(R) Windows Server(R) 2016 Standard Microsoft(R) Windows Server(R) 2016 Datacenter	Windows Server 2016	
Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter	Windows Server 2012 R2	
Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter	Windows Server 2012	
Microsoft(R) Windows Server(R) 2008 R2 Foundation Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter	Windows Server 2008 R2	
Microsoft(R) Windows Server(R) 2008 Standard (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM) (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Enterprise (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM) (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Datacenter (32-bit)(64-bit) Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM) (32-bit)(64-bit)	Windows Server 2008	
Windows(R) 10 Home Windows(R) 10 Pro Windows(R) 10 Mobile	Windows 10	
Windows(R) 8.1 Windows(R) 8.1 Pro	Windows 8.1	
Windows(R) 8 Windows(R) 8 Pro	Windows 8	
Red Hat(R) Enterprise Linux(R) 9 (for Intel64)	RHEL9	Linux
Red Hat(R) Enterprise Linux(R) 8 (for Intel64)	RHEL8	
Red Hat(R) Enterprise Linux(R) 7 (for Intel64)	RHEL7	

Formal Name	Abbreviation	
Red Hat(R) Enterprise Linux(R) 6 (for x86) Red Hat(R) Enterprise Linux(R) 6 (for Intel64)	RHEL6	
Red Hat(R) Enterprise Linux(R) 5 (for x86) Red Hat(R) Enterprise Linux(R) 5 (for Intel64)	RHEL5	
SUSE(R) Linux Enterprise Server 15 for AMD64 & Intel64	SUSE Linux Enterprise Server 15	
SUSE(R) Linux Enterprise Server 12 for AMD64 & Intel64	SUSE Linux Enterprise Server 12	
SUSE(R) Linux Enterprise Server 11 (for x86) SUSE(R) Linux Enterprise Server 11 (for EM64T)	SUSE Linux Enterprise Server 11	
Oracle Solaris 11	Solaris 11	Solaris
Oracle Solaris 10	Solaris 10	
HP-UX 11i v3	HP-UX	
AIX(R) V7.1	AIX	
VMware vSphere(R) 8	VMware vSphere 8	VMware
VMware vSphere(R) 7	VMware vSphere 7	
VMware vSphere(R) 6	VMware vSphere 6	

Oracle Solaris might be described as Solaris, Solaris Operating System, or Solaris OS.

- The storage device names are abbreviated as follows.

Formal Name		Abbreviation	
ETERNUS DX60 S5 ETERNUS DX100 S5 ETERNUS DX200 S5	-	ETERNUS DX S5 series	ETERNUS Disk storage system
ETERNUS DX500 S5 ETERNUS DX600 S5 ETERNUS DX900 S5	-		
ETERNUS DX60 S4 ETERNUS DX100 S4 ETERNUS DX200 S4	-	ETERNUS DX S4 series	
ETERNUS DX500 S4 ETERNUS DX600 S4	-		
ETERNUS DX8900 S4	ETERNUS DX8000 S4 series		
ETERNUS DX60 S3 ETERNUS DX100 S3 ETERNUS DX200 S3	-	ETERNUS DX S3 series	
ETERNUS DX500 S3 ETERNUS DX600 S3	-		
ETERNUS DX8700 S3 ETERNUS DX8900 S3	ETERNUS DX8000 S3 series		
ETERNUS DX60 S2 ETERNUS DX80 S2 ETERNUS DX90 S2	-	ETERNUS DX S2 series	
ETERNUS DX410 S2 ETERNUS DX440 S2	ETERNUS DX400 S2 series		

Formal Name	Abbreviation		
ETERNUS DX8100 S2 ETERNUS DX8700 S2	ETERNUS DX8000 S2 series		
ETERNUS AF150 S3 ETERNUS AF250 S3 ETERNUS AF650 S3	ETERNUS AF S3 series	ETERNUS AF All-Flash Arrays	
ETERNUS AF250 S2 ETERNUS AF650 S2	ETERNUS AF S2 series		
ETERNUS AF250 ETERNUS AF650	ETERNUS AF series		
ETERNUS DX200F	-		
ETERNUS AX series ETERNUS HX series	ETERNUS AX/HX series		
ETERNUS AB series ETERNUS HB series	ETERNUS AB/HB series		

- Software and application names are abbreviated as follows.

Formal Name	Abbreviation
Windows(R) Internet Explorer(R)	Internet Explorer
Mozilla(R) Firefox(R)	Firefox
Google Chrome(TM)	Chrome
Microsoft(R) Windows Server(R) Failover Clustering	WSFC
Microsoft(R) Exchange Server	Exchange Server
Microsoft(R) SQL Server(R)	SQL Server
VMware(R) ESX(R)	VMware ESX
VMware(R) ESXi(TM)	VMware ESXi
VMware(R) vCenter(TM) Server	VMware vCenter Server or vCenter Server
Veeam(R) Backup & Replication(TM)	Veeam
Fujitsu Software Symfoware Server Enterprise Extended Edition Fujitsu Software Symfoware Server Enterprise Edition	Symfoware
Fujitsu Software PRIMECLUSTER GD Fujitsu Software PRIMECLUSTER GDS	PRIMECLUSTER GD

- Manual names are abbreviated as follows.

Formal Name	Abbreviation
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Documentation Road Map	ETERNUS SF Documentation Road Map
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Quick Reference	ETERNUS SF Quick Reference
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Release Notes	ETERNUS SF Release Notes
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Overview	ETERNUS SF Overview
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Installation and Setup Guide	ETERNUS SF Installation and Setup Guide

Formal Name	Abbreviation
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Migration Guide	ETERNUS SF Migration Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Web Console Guide	ETERNUS SF Web Console Guide
ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Cluster Environment Setup Guide	ETERNUS SF Cluster Environment Setup Guide
ETERNUS SF Storage Cruiser / AdvancedCopy Manager Operation Guide for VMware vSphere Virtual Volumes	ETERNUS SF Operation Guide for VMware vSphere Virtual Volumes
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Messages	ETERNUS SF Messages
ETERNUS SF Express / ETERNUS SF Storage Cruiser Event Guide	ETERNUS SF Event Guide
ETERNUS SF Express / ETERNUS SF Storage Cruiser / ETERNUS SF AdvancedCopy Manager Glossary	ETERNUS SF Glossary

- ETERNUS SF Web Console is abbreviated as "Web Console".

- In this document, unless there is a special explanatory note, ETERNUS Disk storage system includes the ETERNUS AF All-Flash Arrays and the ETERNUS DX200F All-Flash Array.
  However, the following functions are not supported in the ETERNUS AF All-Flash Arrays and the ETERNUS DX200F All-Flash Array.

  - Energy saving operation for storage device

  - NAS operation for storage device

  The following function is not supported in the ETERNUS DX200F All-Flash Array.

  - Automated Storage Tiering operation at multiple tiers (two or more)

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Revision History

Revision	Date of Publication	Content of Update
21	December 2023	The description has been modified in the following section. - Installation of the ETERNUS SF product fails in a Windows environment (1.10)
20	March 2023	The following sections have been added. - Installation of the ETERNUS SF product fails in a Solaris environment (1.11) - Adding replication pairs fail with the "Specified volumes have mutually overlapping area." Message (2.1.32) - "Reload Conf." operation regarding the ETERNUS DX S2 series fails with the ssmgr3489 message (2.3.10) - When performing performance management related operations, the swsag0669 message is displayed (2.3.31) - Any operations of Automated Storage Tiering fail (2.3.35) - The "Reset to device, \Device\RaidPort0, was issued" message is periodically output to the Windows event log (2.4.51) The description has been modified in the following section. - Operations for an FC switch do not finish (2.3.7)
19	January 2022	The following sections have been added. - Executing the StgDbSetup command or the stgrepocnv command fails (for Linux or Solaris) (1.24) - The jar file defined in the environment variable CLASSPATH cannot be updated (2.3.47)
18	September 2021	The following sections have been added. - Disabling TLS 1.1/TLS 1.0 protocols used for access to the Management Server from a Web browser (2.1.31) - Event linkage E-mail notification fails in RHEL8 (2.3.46) The description has been modified in the following section. - A backup or replication of an SDX object fails with the swst0740, swsrp0740, or swst0635 message in Linux environments (2.4.48)
17	April 2021	The following sections have been added. - The FC switch operation fails after its SSH communication security setting is changed (2.3.8) - If a manual failover/failback is performed in a Storage Cluster environment, it fails with the ssmgr3967 message (2.3.45) The description has been modified in the following sections. - Installation of the ETERNUS SF product fails in a Windows environment (1.10) - In a cluster environment, the stgxfwcmmodsrv command fails with the swstf5016 message (for Linux or Solaris) (2.4.15)
16	October 2020	The following section has been added. - The Wizard's Remote Advanced Copy Configuration Terminates with the ssmgr3539 Message (2.4.50) The description has been modified in the following sections.

Revision	Date of Publication	Content of Update
		- License registrations to ETERNUS Disk storage system fail (2.1.16)
		- There are symbols that cannot be used for the password during registration of the ETERNUS Disk storage system (2.1.26)
15	April 2020	The following sections have been added. - The operation to change the information of the NetApp FAS Series and AFF series fails with the swsag0018 message (2.1.30) - Operations for an FC switch do not finish (2.3.7) - VVOL datastore does not change to online (2.3.11) - Postgres error messages are output to syslog in Linux environments (2.3.43, 2.4.49) - In a cluster environment, the stgxfwcmmodsrv command fails with the swstf5016 message (for Linux or Solaris) (2.4.15)
14	November 2019	The following section has been added. - The PulseAudio function outputs warning messages during the installation of ETERNUS SF Manager (for Linux) (1.23) The description has been modified in the following section. - Installation of the ETERNUS SF product fails in a Windows environment (1.10)
13	April 2019	The following sections have been added. - SNMP Traps cannot be received (for Windows environment) (2.2.3) - SNMP Traps cannot be received (for Windows environment) (2.3.16) - The command of AdvancedCopy Manager Copy Control Module fails with the STXC1002 message (2.4.18) The description has been modified in the following sections. - License registrations to ETERNUS Disk storage system fail (2.1.16) - There are symbols that cannot be used for the password during registration of the ETERNUS Disk storage system (2.1.26)
12	April 2018	The following sections have been added: - Event linkage to the 32-bit version of Systemwalker Centric Manager fails in Windows environments (2.3.39) - A backup or replication of an SDX object fails with the swst0740, swsrp0740, or swst0635 message in Linux environments (2.4.46) The description has been added in the following section: - The command of AdvancedCopy Manager Copy Control Module fails with the STXC1903 message (2.4.19)
11	December 2017	The following sections have been added: - The installation of ETERNUS SF Manager or AdvancedCopy Manager Copy Control Module in Windows Server 2008 fails (1.13) - Starting services of ETERNUS SF Manager (for Windows) fails (1.22) - A replication pair cannot be added to a replication group (2.1.28) - Some actions cannot be performed on Web Console depending on the replication group state (2.1.29)

Revision	Date of Publication	Content of Update
		The description has been added in the following sections: - The installation of ETERNUS SF Manager (for Windows) fails with a message (1.12) - While uninstalling Storage Cruiser's agent (for Windows) or AdvancedCopy Manager's agent (for Windows), dialog is displayed (1.18) - Abnormal performance information is displayed (2.3.20) The description has been modified in the following section: - VVOL access paths cannot be configured (2.1.27)
10	May 2017	The following sections have been added: - Copy pairs cannot be created (2.1.12) - Advanced Copy operations cannot be executed or cancelled (2.1.13) - Advanced Copy executed volumes cannot be removed ("Delete" in Action pane is grayed out) (2.1.14) - An event that has an empty message is displayed for an FC switch (2.3.5) - The information update process for an FC switch does not finish (2.3.6) - Automated Storage Tiering does not work at the time set in Tiering policy (2.3.29) - Event messages of ETERNUS Multipath Driver are not displayed in a Solaris environment (2.3.38) - The esgui04007 message is displayed when the Backup Wizard for Exchange Server is executed (2.4.45) The following section has been modified: - License registration fails (1.9)
9	October 2016	The following sections have been added: - Installation of ETERNUS SF Manager (for Linux) fails (1.14) - Starting or stopping daemons of ETERNUS SF Manager (for Linux) fails (1.20) - Thin Provisioning Volume creation fails with ssmgr3428 message (2.2.2, 2.3.29) - VVOL access path setting fails with ssmgr3489 message (Detailed message ID: ED2B2) (2.3.7) - VM guests cannot be recognized from VMware vCenter Server if the model upgrade of the ETERNUS Disk storage system has been performed (2.3.30) - Rescanning Storage Provider fails on VMware vCenter Server if the model upgrade of the ETERNUS Disk storage system has been performed (2.3.31) - Evaluation and relocation by Automated Storage Tiering are executed at different time from set time (2.3.32) - Failback of clustered system fails in Windows environment (2.3.34, 2.4.44) The following section has been deleted:

Revision	Date of Publication	Content of Update
		- The swsrpvssbackup_exchange command fails with swsrp4719 message (2.4.24 in the 8th revision)
8	June 2016	The following section has been added: - Device registration of Storage Cruiser's agent installed server fails with esccs02015 message (2.3.28)
7	April 2016	The following sections have been added: - Virtual machine backup fails with vmlink00052 message (2.4.34) - Restore from Clone backup fails with vmlink00052 message (2.4.35) - Higher CPU usage rate of ETERNUS SF Manager Tomcat daemon/service in proportion to the number of copy groups (2.4.44)
6	November 2015	The following sections have been added: - Earlier version data of AdvancedCopy Manager Copy Control Module (for Linux/Solaris) cannot be backed up/restored (1.18) - File download fails in Internet Explorer 8 (2.1.4) - Symbols unusable for password at registration of ETERNUS Disk storage system (2.1.23) - Registration/reload of Hyper-V host fails with esccs0215 message (2.3.2) - VVOL datastore not displayed in vSphere Web Client (2.3.8) - After restore from Clone backup, Linux virtual machine cannot use network (2.4.33) The following sections have been modified: - Devices not discovered by Device Search on the Web Console (1.3) - esgui01005 error generated in storage registration when constructing ETERNUS SF Manager cluster environment (1.7) - All IP addresses of a virtual server are not displayed (2.3.6) - Traps on an ETERNUS Disk storage system cannot be monitored (2.3.14) - Abnormal performance information is displayed (2.3.17)
5	March 2015	The following sections have been added: - License registration fails (1.9) - Operation toward ETERNUS Disk storage system from ETERNUS SF Storage Cruiser fails with message ssmgr3489 (detailed message ID is ED180) (2.3.4) - In spite of sufficient free space in VVOL datastore, creating virtual machine fails due to insufficient free space in VVOL datastore (2.3.6) - VVOL datastore cannot be deleted in VMware vSphere High Availability environment (2.3.7) - After creating or removing virtual machine failed, Virtual Volume remains (2.3.8) - In VMware vSphere Virtual Volumes environment, simultaneous operation toward multiple virtual machines fails (2.3.9) - In VMware vSphere Virtual Volumes environment, other troubles occur (2.3.10)

Revision	Date of Publication	Content of Update
		- After restore from Clone backup, Windows virtual machine does not boot (2.4.32) The following sections have been modified: - The term "VMware Virtual Volumes" is changed to "VMware vSphere Virtual Volumes" according to the terms used by VMware, Inc (Throughout this document). - Information related to VMware vSphere(R) 6 is added ("Notation" in Preface).
4	February 2015	The following sections have been added: - In the cluster environment, if you reload configuration after upgrading ETERNUS SF Manager (Windows version), it fails with ssmgr3489 (1.6) - When deleting server device, esccs00191 error is generated (2.1.16) - The NAS environment backup settings has failed (2.1.20) - Deletion of shared folder has failed (2.1.21) - "2.2 ETERNUS SF Express" to "Chapter 2 Troubleshooting during Operations" is added. - Capture of the NAS volume snapshot failed (2.2.1, 2.3.19) - The registered server status is displayed as "Unknown" (2.3.2) - Abnormal performance information is displayed (2.3.9) - The status of REC path in which bandwidth is limited is Error (2.3.18) - The AdvancedCopy Manager Symfoware log can be monitored in the cluster environment (2.4.15) The following sections have been modified: - Installation of ETERNUS SF product fails in Windows environment (1.9) - Message is output when installing ETERNUS SF Manager (for Windows) and installation fails (1.11)
3	August 2014	The following sections have been added: - Message is output when installing ETERNUS SF Manager (for Windows) and installation fails - Operation of copy group is grayed out - Non-response may be caused by removing FC switch - The operation status in the performance management function becomes "Error". - Copy Control Module command failed with STXC1903 - Script ends abnormally when VMware virtual machine is restored by automatic backup/restore script The following sections have been modified: - Devices not discovered by Device Search on the ETERNUS SF Web Console - esgui01013 error generated by Device Search on the ETERNUS SF Web Console - Registering license to ETERNUS Disk storage system failed

Revision	Date of Publication	Content of Update
		- Traps on an ETERNUS Disk storage system cannot be monitored
2	March 2014	The following sections have been added: - Installation of ETERNUS SF product fails in Windows environment - When NAS interface creation fails, redundant ports are connected to Active-Standby failover mode
1	January 2014	-

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Contents

Chapter 1   Troubleshooting during Installation

1.1   Web Console takes a long time to register a server

Problem

Web Console takes a long time to register the AIX server where Storage Cruiser's agent is installed. Moreover, the HBA port information for the server may not be properly acknowledged.

Troubleshooting

- Check if all the HBA ports are properly connected.

- Delete any fiber channel device that corresponds to an unconnected HBA port. For information on how to check the relationship between HBA ports and fiber channel devices, refer to the AIX documents.
  In addition, when you restart the server, repeating this procedure may be required.

  [Operation example]
  When fiber channel device "fcs3" is not used:

  ```
  # /usr/sbin/rmdev -Rdl fcs3
  ```

For cases other than the above, refer to "Collecting Troubleshooting Information" in the *ETERNUS SF Storage Cruiser Operation Guide* to collect the information required for troubleshooting and contact Fujitsu Technical Support.

1.2   Installation fails

Problem

When you install ETERNUS SF Version 15 in a RHEL5 or RHEL6 system, the installation fails due to a locale problem.

```
./swsetup
swsetup:Installer is preparing for installation.
swsetup:ERROR: This product has not supported the locale.
```

Troubleshooting

Check whether the locale is "C". If anything other than "C" is set, edit the /etc/sysconfig/i18n file and specify LANG="C".

1.3   Devices not detected by "Device Search" of Web Console

Problem

Regardless whether a storage device or switch is connected, a target device is not detected by "Device Search" of Web Console.

Troubleshooting

Check the following points:

- Whether the SNMP agent function on storage devices and switches is running.

- The version of the SNMP protocol used by the SNMP agent function of the storage device or switch as follows in accordance with the version of the manager program (Express's manager or Storage Cruiser's manager) of the product in use is set.

Version of Manager Program	Version of SNMP Protocol To Be Set
16.2 or earlier	SNMPv1 protocol

Version of Manager Program	Version of SNMP Protocol To Be Set
16.3 or later	SNMPv1 or SNMPv3 protocol

- The action taken when a device cannot be found as described in "Problem-handling (FAQ)" for the target device in the *ETERNUS SF Storage Cruiser Operation Guide*.

If the above points are not applicable, refer to "Collecting Troubleshooting Information" in the Operation Guide (*ETERNUS SF Express Operation Guide* or *ETERNUS SF Storage Cruiser Operation Guide*) of the product in use to collect the information required for troubleshooting and contact Fujitsu Technical Support.

1.4 The esgui01013 error occurred by "Device Search" of Web Console

Problem

The esgui01013 error occurred (the specified username or password is wrong) by "Device Search" of Web Console.

Troubleshooting

When entering the username and password for a device on the storage registration screen, enter the following information:

- For the ETERNUS DX60/DX80/DX90, DX400 series, DX8000 series, or the ETERNUS LT250/LT270, username and password with administrator privileges.

- For the ETERNUS Disk storage systems other than those above, username and password with the Software role.

1.5 The swsag0105 error occurred by "Device Search" of Web Console

Problem

The swsag0105 error occurred by "Device Search" of Web Console.

Troubleshooting

If SNMP community name is not public and a Slave CM IP is set to the ETERNUS Disk storage system, refer to "Step 3: For Registering by Searching IP Address" of "Register ETERNUS Disk Storage System" in the *ETERNUS SF Web Console Guide*.

1.6 In a cluster environment, if you reload the configuration after upgrading ETERNUS SF Manager (for Windows), it fails with the ssmgr3489 message

Problem

If you perform the **Reload Conf.** operation after creating a Microsoft failover cluster environment and upgrading ETERNUS SF Manager (for Windows) under the following conditions, it fails with the ssmgr3489 message:

1. A cluster environment with ETERNUS SF Manger Version 16.0 or 16.1 (for Windows) is created.

2. An upgrade of ETERNUS SF Manager was performed after step 1.

Troubleshooting

Resolve the trouble by backing up the detailed configuration file of storage management, configuring the Storage Cruiser's manager environment, and restoring the detailed configuration file of storage management.

Perform the following procedure:

1. With the Failover Cluster Manager, stop the tasks to which ETERNUS SF Manager belongs.
   However, set the shared disk used by ETERNUS SF Manager to online on the primary node.

2. On the primary node, copy the detailed configuration file of storage management shown below to the working directory of your choice (example: C:\temp).

```
File Name: sharedDisk(*1)\ESC\Manager\etc\opt\FJSVssmgr\current\sanma.conf
```

3. On the primary node, copy all the files under the configuration directory of the Storage Cruiser management environment and working directory to the shared disk.
   Using a file manager such as Explorer, copy all the files under the configuration directory of the Storage Cruiser manager environment and the working directory to the shared disk.

Copy source directory	Copy destination directory
environmentDir(*2)\ESC\Manager\etc	sharedDisk(*1)\ESC\Manager\etc
workDir(*2)\ESC\Manager\var	sharedDisk(*1)\ESC\Manager\var

*1: The shared disk used by ETERNUS SF Manager in step 1
*2: The directory specified when installing ETERNUS SF Manager Version 16.0 or 16.1 before performing a cluster setup

4. Copy the storage management detailed configuration file that was copied in step 2 to the shared disk.

```
File Name: sharedDisk\ESC\Manager\etc\opt\FJSVssmgr\current\sanma.conf
```

After this step, the files copied to the working directory in step 2 can be safely deleted.

5. With the Failover Cluster Manager, activate the tasks to which ETERNUS SF Manager belongs.

1.7 The storage registration fails with the esgui01005 error when configuring the ETERNUS SF Manager cluster environment

Problem

When configuring the ETERNUS SF Manager cluster environment, even though the storage device exists, the registration of the storage device (by clicking **Add Storage** and then **Discover**) by referring the procedure in the *ETERNUS SF Cluster Environment Setup Guide* and *ETERNUS SF Installation and Setup Guide* fails with the esgui01005 error.

Troubleshooting

For the SNMP agent configuration on an ETERNUS Disk storage system, configure not only a logical IP address of the clustered system but an IP address for each physical node in the clustered system.

1.8 A failure message appears during the registration of a license

Problem

If you register a license with ETERNUS Web GUI, the following failure message appears:

- During processing, an error occurred.
  Detail information entered advance copy license was incorrect.

- License key is invalid.

Troubleshooting

The reason for the failure is because the registration of the ETERNUS SF Manager license was carried out using ETERNUS Web GUI. Register the license using Web Console.

1.9 License registration fails

Problem #1

The registration of a license fails with the following error message.

- When the command line is used

```
ERROR:1012:License ID, Serial Number, or License Key is incorrect.
```

- When Web Console is used

```
esgui02002 The specified license key is incorrect. License = "licenseName" Code = 1012
```

Troubleshooting for Problem #1

Any one of the specified information (license ID, serial number, and license key) is incorrect.
Check all the specified information.

- If the specified information is incorrect
  Specify the correct information and re-register the license.

- If the specified information is correct
  An invalid license key may have been obtained. Check whether the serial number that was notified by E-mail when obtaining a license key matches that of the device.
  If the serial number does not match, the license key is invalid. Contact the sales department responsible for your company to ask for a re-issuance of a valid license key.
  After obtaining a valid license key, re-register the license.

Problem #2

In a Windows environment, the registration of a license fails with the following error message.

- When the command line is used

```
ERROR:1030:The specified IP address or host name cannot be found on network.
```

Or

```
ERROR:1032:Registration of license information failed.
```

- When Web Console is used

```
esgui02003 The specified device cannot be found in the network. License = "licenseNname" Code = 1030
```

Or

```
esgui02011 Registration of license information failed. License = "licenseName" Code = 1032
```

Troubleshooting for Problem #2

For name resolution of the Management Server and the ETERNUS Disk storage system, register the IP address and host name of devices in the DNS server or define them in the hosts file.

1.10 Installation of the ETERNUS SF product fails in a Windows environment

Problem

In a Windows environment, if any of the following programs is installed, a dialog box with the following message is output and the installation may fail:

- ETERNUS SF Manager

- Storage Cruise's agent

- AdvancedCopy Manager's agent

```
Error 1330.A file that is required cannot be installed because the cabinet file cabinetFileName has
an invalid digital signature. This may indicate that the cabinet file is corrupt. Error 266 was
returned by WinVerifyTrust.
```

Troubleshooting

Install the program into the server while connected to the Internet or install it after updating the security certificate file according to the following procedure.

1. Open the following URL on a PC that is connected to the Internet.

   ```
   https://www.websecurity.digicert.com/theme/roots
   ```

2. Download the certificate file from **VeriSign Universal Root Certification Authority**.

3. Copy the downloaded certificate file to the server where the program is to be installed.

   Perform the following procedure on the server where the program is to be installed.

4. From the start menu, click **Run**.

5. Enter "mmc.exe" in [Name], and click **OK** to start the Microsoft Management Console.

6. If the user account control dialog box is displayed, permit for it or authenticate it with an administrative user privileges.

7. In the opened window, select **File** > **Add/Remove Snap-in...**.

8. From "Available snap-ins", select **Certificates** and click **Add**.

9. Select **Computer account** and then click **Next**.

10. Select **Local computer** and then click **Finish**.

11. Confirm that "Certificates (Local Computer)" has been added to "Selected snap-ins" and click **OK**.

12. Open the following location from the Microsoft Management Console window.

    ```
    "Console Root"
     - "Certificates (Local Computer)"
       - "Trusted Root Certification Authorities"
         - "Certificates"
    ```

13. From the menu, select **Action** > **All tasks** > **Import**.

14. In the opened window, click **Next**.

15. Click **Browse** under [File name] and select the certificate file copied in step 3, and then click **Next**.

16. Select **Place certificates in the following store** and confirm that "Trusted Root Certification Authorities" is displayed for "Certificate store", and then click **Next**.

17. Click **Finish**.

18. After the "Successfully imported" message is displayed, confirm that the relevant certificate has been added.

1.11 Installation of the ETERNUS SF product fails in a Solaris environment

Problem

If you install ETERNUS SF Manager in a Solaris environment, the following message is output and the installation fails.

```
ERROR: Package installation has failed. (code:install)
```

Conditions

This problem occurs when all of the following conditions are satisfied.

- The environment is Solaris 11.4.

- SRU18121 and later are not applied

Troubleshooting

Install the ETERNUS SF products after applying SRU18121 and later.

1.12 The installation of ETERNUS SF Manager fails with a message

Problem

If you install ETERNUS SF Manager, the following message is output and the installation fails.

```
ERROR: Since following product exists, cannot be installed:Symfoware Server.
```

Conditions

Symfoware is running on the server.

Troubleshooting

Install ETERNUS SF Manager after stopping the following Symfoware processes.
After the installation, restart the stopped Symfoware processes.

- Symfoware/RDB

- WebDBtools

- RDA-SV

1.13 The installation of ETERNUS SF Manager (for Windows) fails with a message

Problem #1

If you install ETERNUS SF Manager (for Windows), the following message is output and the installation fails.

```
It failed in making the repository by an internal error of the system.
Please contact Fujitsu technological member (SE) when the problem doesn't solve even if you execute it
again.
```

Troubleshooting for Problem #1

Check the access privileges of Users Group on the drive where ETERNUS SF Manager is installed. If the following privileges are not granted, grant the privileges, and re-execute the installation program.

- Create Folder / Append Data

Problem #2

If you install ETERNUS SF Manager Version 16.5 (for Windows), the following message is output and the installation fails.

```
The service could not be started. Service Name:ETERNUS SF Manager Postgres Service
```

Condition for Problem #2

All of the following is true:

- The OS is Windows.

- A Postgres service within the following range of versions is started by another product:

    - Postgres 9.5.0 - 9.5.4

    - Postgres 9.4.0 - 9.4.9

Troubleshooting for Problem #2

Perform the following steps:

- For new installations

    1. Stop the Postgres service that is running in the installation destination server.

    2. Install the ETERNUS SF Manager.

    3. After the installation is completed, apply the patch T013975XP-01 or later.

    4. Start the Postgres service that was stopped in step 1.

- For upgrade installations

    1. Stop the Postgres service that is running in the installation destination server.

    2. Refer to "Troubleshooting" in the *ETERNUS SF Migration Guide* for version 16.5 and execute the procedure when the upgrade installation terminates abnormally.

    3. After the upgrade installation is completed, apply the patch T013975XP-01 or later.

    4. Start the Postgres service that was stopped in step 1.

1.14 The installation of ETERNUS SF Manager or AdvancedCopy Manager Copy Control Module in Windows Server 2008 fails

Problem

In a Windows Server 2008 environment, if you install ETERNUS SF Manager or AdvancedCopy Manager Copy Control Module, the following message is output and the installation fails.

```
It failed in making the short cut by an internal error of the system. Please contact Fujitsu Technical
Support when the problem doesn't solve even if you execute it again.
```

Conditions

One of the following is true:

- You are executing a new installation of ETERNUS SF Manager Version 16.5.

- You are executing an upgrade installation from ETERNUS SF Manager Version 15.x to Version 16.5.

- You are executing a new installation of AdvancedCopy Manager Copy Control Module Version 16.5.

- You are executing an upgrade installation from AdvancedCopy Manager Copy Control Module Version 15.x to Version 16.5.

Troubleshooting

Perform the following steps:

- For new installations of ETERNUS SF Manager Version 16.5

  First, execute a new installation of ETERNUS SF Manager Version 16.4 and then upgrade to Version 16.5.

- For upgrades from ETERNUS SF Manager Version 15.x to Version 16.5

  First, upgrade ETERNUS SF Manager Version 15.x to Version 16.4 and then upgrade to Version 16.5.

- For new installations of AdvancedCopy Manager Copy Control Module Version 16.5

  First, execute a new installation of AdvancedCopy Manager Copy Control Module Version 16.4 and then upgrade to Version 16.5.

- For upgrades from AdvancedCopy Manager Copy Control Module Version 15.x to Version 16.5

  First, upgrade AdvancedCopy Manager Copy Control Module Version 15.x to Version 16.4 and then upgrade to Version 16.5.

📖 Information
· ·

For information on how to obtain DVD-ROM media for ETERNUS SF Express 16.4 / Storage Cruiser 16.4 / AdvancedCopy Manager 16.4, contact Fujitsu Technical Support.
· ·

1.15 The installation of ETERNUS SF Manager (for Solaris) fails with a message

Problem

If you install ETERNUS SF Manager (for Solaris), either of the following message is output and the installation fails:

- ERROR : Failed to create a RDB dictionary and RDB directory file.

- ERROR : Failed to create a log management file.

Troubleshooting

Specify "/opt/FSUNrdb2b/lib" for the value of environment variable LD_LIBRARY_PATH_64 and install ETERNUS SF Manager.

1.16 The installation of ETERNUS SF Manager (for Linux) fails

Problem

If you install ETERNUS SF Manager Version 16.2 in a Linux environment, multiple lines of error messages including the following message are output and the installation fails.

```
No such file or directory
```

Conditions

- The operating system is Red Hat Enterprise Linux 5 (for Intel64) or Red Hat Enterprise Linux 6 (for Intel64).

- One of the following products is installed:

    - ServerView Operation Manager V7.02 or later

    - ServerView Agents V7.00 or later

    - ServerView Agentless Service V7.00 or later

Troubleshooting

Because of the /usr/lib/systemd/system directory, only part of the ETERNUS SF Manager Version 16.2 program is installed and is incomplete. For this reason, perform the following steps:

1. Change the name of the /usr/lib/systemd/system directory to an arbitrary name.

2. Uninstall the ETERNUS SF Manager Version 16.2 program to set the server environment back to the original condition before the installation of ETERNUS SF Manager Version 16.2.

   Refer to "Uninstallation of ETERNUS SF Manager" in the *ETERNUS SF Version 16.2 Installation and Setup Guide* for the uninstallation procedure.

3. Reinstall ETERNUS SF Manager Version 16.2.

   Refer to "Installation of ETERNUS SF Manager" in the *ETERNUS SF Version 16.2 Installation and Setup Guide* for the installation procedure.

1.17   The uninstallation of ETERNUS SF Manager (for Solaris) fails with a message

Problem

If you uninstall ETERNUS SF Manager (for Solaris), either of the following message is output and the uninstallation fails:

- ERROR : Failed to delete the RDB archive log file.

- ERROR : Failed to activate RDB.

Troubleshooting

Specify "/opt/FSUNrdb2b/lib" for the value of environment variable LD_LIBRARY_PATH_64 and uninstall ETERNUS SF Manager.

1.18   The registration of a server or changing the server information fails

Problem

For either of the following cases, the registration of a server or changing the server information fails in Web Console:

- On the Server Registration screen, select **Yes** for the **Use AdvancedCopy Manager** field and specify an IPv6 address in the IP address field to register the server.

- For the server registered with an IPv6 address, select **Yes** for the **Use AdvancedCopy Manager** field on the Server Change screen to change the server information.

Troubleshooting

Use the "stgxfwcmdispsrv" command of AdvancedCopy Manager to check the IP address of the Management Server. Refer to "stgxfwcmdispsrv (Server Information Display Command)" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* for information on the command.

If the IP address of the Management Server is only an IPv4 address, before registering/changing the server in Web Console, refer to "Changing IP Address of Management Server" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* to change the IP address of the Management Server to an IPv6 address or add an IPv6 address.

For cases other than above, follow the instruction of the message output on the Operation Details screen for the Operation History.

1.19 While uninstalling Storage Cruiser's agent (for Windows) or AdvancedCopy Manager's agent (for Windows), dialog is displayed

Problem

If you uninstall the Storage Cruiser's agent (for Windows) or the AdvancedCopy Manager's agent (for Windows), a confirmation dialog is displayed and you must select the proper button.

Conditions #1

Exchange Server 2013 is installed.

Troubleshooting for conditions #1

The following contents are displayed in the dialog.

- Content of the dialog

```
Files in Use
Some files that need to be updated are in use.
The following applications are using files that need to be updated by this setup.
Close these applications and click Retry to continue.
```

- Buttons

  Retry, **Ignore**, **Exit**

With the dialog output still displayed, stop the service for Exchange Health Manager Service and click **Retry** to finish uninstallation. Applying the cumulative update (CU1 or later) for Exchange Server 2013 can avoid this problem.

Conditions #2

Event Viewer is opened.

Troubleshooting for conditions #2

The following contents are displayed in the dialog.

- Content of the dialog

```
Files in Use
Some files that need to be updated are currently in use.
```

- Buttons

  OK, **Cancel**

After cancelling the uninstallation by clicking **Cancel**, close the opened Event Viewer. Then, perform the uninstallation again.

1.20 Data for earlier versions of AdvancedCopy Manager Copy Control Module (for Windows) cannot be restored

Problem

The following is the procedure for the upgrade installation from AdvancedCopy Manager Copy Control Module Version 15.x for Windows, which is described in the *ETERNUS SF Migration Guide*:

1. Back up the environment setting file using the esfccmpreinst.bat (esfccmpreinst_cluster.bat for cluster environments).

2. Perform the upgrade installation.

3. Restore the environment setting file using the esfccmpostinst.bat (esfccmpostinst_cluster.bat for cluster environments).

For the restore process of the configuration file in step 3, the following message may be output and a restore may not be possible.

```
An invalid argument was specified.
Specify directory name using any characters other than the following symbols and blank. "|:*?/.<>,
%&^=!;()
```

Troubleshooting

By performing the following two procedures, instead of restoring to an earlier version backed up using the esfccmpreinst.bat (esfccmpreinst_cluster.bat for cluster environments), the environment setting file can be restored. This process is not a procedure to perform a successful restore, so executing a restore command is not required after this procedure.
In addition, the meanings of $BAK_DIR, $INS_DIR, $ENV_DIR, $TMP_DIR, $SHARE_DL, $SHARE_TOP are as follows.

Variable	Explanation
$BAK_DIR	Directory specified when backing up earlier versions.
$INS_DIR	Program Directory when AdvancedCopy Manager Copy Control Module is installed. (Default is C:\ETERNUS_SF)
$ENV_DIR	Configuration Directory when AdvancedCopy Manager Copy Control Module is installed. (Default is C:\ETERNUS_SF)
$TMP_DIR	Working Directory when AdvancedCopy Manager Copy Control Module is installed. (Default is C:\ETERNUS_SF)
$SHARE_DL	Drive letter of the shared disk for the shared data of AdvancedCopy Manager Copy Control Module.
$SHARE_TOP	Directory in which "Configuration Directory" and "Working Directory" of the shared disk are stored for the shared data of AdvancedCopy Manager Copy Control Module.

1. Overwrite the copy destination directories with the following copy source directories using a file manager such as Explorer.
   For a cluster environment, perform this on the primary node and the secondary node.

Copy source directory	Copy destination directory
$BAK_DIR\esf_manager_backup\CCM\local\ETC\etc	$ENV_DIR\CCM\etc
$BAK_DIR\esf_manager_backup\CCM\local\VAR\var	$TMP_DIR\CCM\var

In addition, for a cluster environment, the following directories on the primary node must also be overwritten.

Copy source directory	Copy destination directory
All data under $BAK_DIR\esf_manager_backup\CCM \shdisk_c\SHARE_MNT_ETC directory	$SHARE_DL:$SHARE_TOP\etc
All data under $BAK_DIR\esf_manager_backup\CCM \shdisk_c\SHARE_MNT_VAR directory	$SHARE_DL:$SHARE_TOP\var

2. Execute the following command to restore the license information registered for the earlier version. For a cluster environment, perform this on the primary node and the secondary node.

```
$INS_DIR\LM\bin\esflm restore $BAK_DIR\esf_manager_backup\LM\esflmbkup
```

1.21   Data for earlier versions of AdvancedCopy Manager Copy Control Module (for Linux/Solaris) cannot be backed up/ restored

Problem

If you execute the command used with the procedure described in the *ETERNUS SF Migration Guide* to upgrade from AdvancedCopy Manager Copy Control Module Version 15.x (for Linux/Solaris), the following message is output and a backup/restore of the environment setting files fails.

```
ERROR: Environment to execute command is wrong.
```

Conditions

- AdvancedCopy Manager Copy Control Module Version 15.x (for Linux or Solaris) is installed.

- AdvancedCopy Manager's agent is installed.

- In the procedure for the upgrade to AdvancedCopy Manager Copy Control Module Version 16.0 / 16.1 / 16.2, the following commands are executed to back up/restore the environment setting files:

    - esfccmpreinst.sh

    - esfccmpreinst_cluster.sh

    - esfccmpostinst.sh

    - esfccmpostinst_cluster.sh

Troubleshooting

Perform the following steps:

1. Copy all the data on the DVD-ROM that is mounted in the procedure "Preparing for Upgrade" or "Tasks to Be Performed after Upgrade" in the *ETERNUS SF Migration Guide* to any directory.

2. Edit the 99th line in the *<copyDestinationDirectory>*/Manager_unix/vuptools/esfccmpreinst_exec.sh file as shown below.
   After you edit the file, save it with a forced write.

```
Before editing: $PKGINFO_Q "FJSVswstf"
After editing: $PKGINFO_Q "FJSVssmgr"
```

3. Edit the 101st line in the *<copyDestinationDirectory>*/Manager_unix/vuptools/esfccmpostinst_exec.sh file as shown below.
   After you edit the file, save it with a forced write.

```
Before editing: $PKGINFO_Q "FJSVswstf"
After editing: $PKGINFO_Q "FJSVssmgr"
```

4. Back up/restore the operational environment of AdvancedCopy Manager Copy Control Module.
   To perform the above operation, execute esfccmpreinst.sh and esfccmpostinst.sh on the copy destination according to the procedure described in the *ETERNUS SF Migration Guide*.

1.22 Starting or stopping daemons of ETERNUS SF Manager (for Linux) fails

Problem

In a Linux environment, when starting or stopping the daemons of ETERNUS SF Manager Version 16.2, multiple lines of error messages including the following message are output and the daemons fail to start or stop.

```
No such file or directory
```

Conditions

- The operating system is Red Hat Enterprise Linux 5 (for Intel64) or Red Hat Enterprise Linux 6 (for Intel64).

- ETERNUS SF Manager Version 16.2 is installed.

- One of the following products is installed:

    - ServerView Operation Manager V7.02 or later

    - ServerView Agents V7.00 or later

    - ServerView Agentless Service V7.00 or later

- One of the following command is executed:

    - startesf.sh

    - start-webservice.sh

    - stopesf.sh

    - stop-webservice.sh

Troubleshooting

Change the name of the /usr/lib/systemd/system directory to an arbitrary name.

1.23 Starting services of ETERNUS SF Manager (for Windows) fails

Problem

In a Windows environment, the following message is output to the system application log during the start of the ETERNUS SF Manager Postgres Service and the service fails to start.

```
FATAL: could not create shared memory segment
```

Conditions

All of the following is true:

- The OS is Windows.

- ETERNUS SF Manager Version 16.5 is installed.

- A Postgres service within the following range of versions is started by another product:

    - Postgres 9.5.0 - 9.5.4

    - Postgres 9.4.0 - 9.4.9

Troubleshooting

Apply the patch T013975XP-01 or later.

1.24 The PulseAudio function outputs warning messages during the installation of ETERNUS SF Manager (for Linux)

Problem

The following warning messages are output during the installation of ETERNUS SF Manager (for Linux).

```
W: [pulseaudio] authkey.c: Failed to open cookie file '/home/esfpostgres/.config/pulse/cookie'
W: [pulseaudio] authkey.c: Failed to load authentication key '/home/esfpostgres/.config/pulse/cookie'
W: [pulseaudio] authkey.c: Failed to open cookie file '/home/esfpostgres/.pulse-cookie'
W: [pulseaudio] authkey.c: Failed to load authentication key '/home/esfpostgres/.pulse-cookie'
```

Troubleshooting

Because the installation and behavior of the ETERNUS SF Manager program are not affected, no action is required. The above warning messages can be ignored.

1.25 Executing the StgDbSetup command or the stgrepocnv command fails (for Linux or Solaris)

Problem

If the "StgDbSetup" command or the "stgrepocnv" command is executed in the Management Server, the following message is output, and the command fails.

- Error message during the execution of the "StgDbSetup" command

```
error retrieving current directory: getcwd: cannot access parent directories: Permission denied
```

- Error message during the execution of the "stgrepocnv" command

```
ERROR : command failed. (/usr/bin/su esfpostgres -c '/opt/FJSVesfcm/postgres/bin/pg_ctl -w -D /var/
opt/FJSVesfcm/db/data start', 1)
```

Troubleshooting

If the command is executed in a directory where the root group does not have execution rights, such as the following "/work/dir" directory, the command fails.

```
# ls -l /work
drwx------   2 root     root          512  Jan  1 12:00 dir
```

Make sure the command is not being executed in a directory where the root group does not have execution rights, and if the command has been executed, try again in a directory where the root group has execution rights.

Chapter 2 Troubleshooting during Operations

2.1 Web Console

2.1.1 Unable to login to Web Console with Internet Explorer

Problem

From the Login screen using Internet Explorer, even if the **Login** is clicked, the screen continues to display "Loading" and you cannot log in to Web Console.

Troubleshooting

Check whether the Compatibility View function is disabled in Internet Explorer.
For information on how to check this setting, refer to "Compatibility View settings of Internet Explorer" in the *ETERNUS SF Web Console Guide*.
If the function is enabled, set it to Disabled according to the procedure described in the manual, close and restart Internet Explorer, and login to the Web Console.
If a confirmation dialog for a forced login is displayed while logging in, click **OK**.

2.1.2 Screens not transitioning with Internet Explorer 8

Problem

When screens transition in Web Console on Internet Explorer 8, the screen continues to display "Loading" without transitioning.

Troubleshooting

Apply the Internet Explorer 8 fix program KB976662.
Refer to the following URL for information on the fix program:

```
http://support.microsoft.com/kb/976662
```

2.1.3 If [System] > [System settings] of Web Console is selected using Internet Explorer 8, "blocked due to security strengthened configuration" is displayed

Problem

If **System** > **System settings** of Web Console is selected using Internet Explorer 8, the following message is displayed.

```
blocked due to security strengthened configuration
```

Troubleshooting

Refer to "HTTPS Communication" in the *ETERNUS SF Web Console Guide*.

2.1.4 File downloads fail using Internet Explorer 8

Problem

When the processes associated with a file download (such as exportation of performance information and collection of information required for troubleshooting are stored in the ETERNUS SF system) are executed using Internet Explorer 8, the following message is displayed.

```
Internet Explorer was unable to open this site. The requested site is either unavailable or cannot be
found. Please try again later.
```

Troubleshooting

This event is an Internet Explorer 8 problem, whose information is disclosed by Microsoft Support. Refer to the following URL for details:

`https://support.microsoft.com/kb/323308`

2.1.5   Screens not transitioning during Web Console operations

Problem

When you operate Web Console, the screen continues to display "Loading" and does not transition.

Troubleshooting

Perform the following operations:

1. Check that the Management Server is started and that the network between the Management Server and the computer on which the browser is running is properly connected.

2. Click **Close** in the browser to close the browser.

3. After waiting a while, reopen the browser and access Web Console.

4. Check that the Login screen is displayed. If the Login screen is not displayed, restart the procedure from step 2.

5. Log in from the Login screen and re-execute the operation.

2.1.6   Screens not working properly using Internet Explorer in Windows Server 2008 or Windows Server 2008 R2

Problem

Operation of Web Console using Internet Explorer in Windows Server 2008 or Windows Server 2008 R2 may cause one of the following events to occur:

- During a screen transition, the screen continues to display "Loading" and does not transition.

- The link, menu, tab, button, checkbox, and radio button do not work properly.

- Tooltip does not disappear.

- Buttons and input fields (such as pull-down menus and text boxes) are not enabled.

- Even if a date is selected from the calendar, it is not reflected on the screen.

- Even if the [**X**] button on the upper-right of the dialog is clicked, the dialog does not close.

Troubleshooting

Check whether [Configuration of IE ESC] in [Security Information] of Internet Explorer is [Off], and if it is [On], perform the following steps to set it to [Off]:
In addition, after the work is completed, because the security strength of the target server is degraded, it is recommended that setting be reverted to [On] in step 4.

1. Close all instances of Internet Explorer.

2. Start [Server Manager] from the **Start** menu.

3. Click [Configuration of IE ESC] in [Security Information].

4. Click [Off] for the user that is to be set (Administrator or User).

5. Click **OK**.

2.1.7 Screens not working properly using Internet Explorer in Windows Server 2012

Problem

Operation of Web Console using Internet Explorer in Windows Server 2012 may cause one of the following events to occur:

- During a screen transition, the screen continues to display "Loading" and does not transition.

- The link, menu, tab, button, checkbox, and radio button do not work properly.

- Tooltip does not disappear.

- Buttons and input fields (such as pull-down menus and text boxes) are not enabled.

- Even if a date is selected from the calendar, it is not reflected on the screen.

- Even if the [**X**] button on the upper-right of the dialog is clicked, the dialog does not close.

Troubleshooting

Check whether [IE Enhanced Security Configuration] of the server is disabled. If not, perform the following steps to disable it.
In addition, after the work is completed, because the security strength of the target server is degraded, it is recommended that setting be reverted to [On] in step 5.

1. Close all instances of Internet Explorer.

2. Start [Server Manager].

3. Select [Local Server] in the left panel to display the property of the target server.

4. Refer to [IE Enhanced Security Configuration] and if [On] is displayed, click [On].

5. Click [Off] for the user that is to be set (Administrator or User).

6. Click **OK**.

2.1.8 Latest information is not displayed in Web Console

Problem

The latest information for the target device is not displayed in Web Console even though the device configuration is changed.

Troubleshooting

Perform the **Reload Conf.** operation with Web Console.

Reload Conf. is operated with one of the following:

- Storage > [Reload Conf.]

- Storage > [Disk Storage System] > [Reload Conf.]

- Network > [Reload Conf.]

- Network > [Switch] > [Reload Conf.]

- Server > [Reload Conf.]

- Server > [Server] > [Reload Conf.]

2.1.9 The Reload Conf. operation failed

2.1.9.1 ssmgr3000 message is displayed

Problem

The **Reload Conf.** operation for the ETERNUS Disk storage system fails with the message below.

```
ERROR:ssmgr3000:Unexpected error has occurred.
```

Troubleshooting

Using ETERNUS Web GUI or ETERNUS CLI, check whether a RAID Group Capacity Expansion was executed for the ETERNUS Disk storage system.
If a RAID Group Capacity Expansion is in progress, wait until it is completed and re-execute the operation.
If the issue is not resolved, refer to "System Administrator Corrective Action" for the relevant message in the *ETERNUS SF Messages* to take corrective action.

2.1.9.2 ssmgr3212 message is displayed

Problem

When you perform the **Reload Conf.** operation for an ETERNUS Disk storage system, the following message is displayed and the operation fails.

```
ERROR:ssmgr3212: It failed in the setting or the information acquisition of the storage device.
code=60 STXS7004 ERROR Failed to communicate with the device. [IP address=xx.xx.xx.xx]
```

Troubleshooting

Using ETERNUS Web GUI, permit "Maintenance Secure Connection" in "Configure Firewall" of ETERNUS Disk storage system. With the authorization, tcp port 1372 can be used and the process can be performed normally.

2.1.9.3 ssmgr8025 message is displayed

Problem

The **Reload Conf.** operation for the ETERNUS Disk storage system, FC switch, server, or tape library fails with the following message.

```
SEVERE:ssmgr8025:Unexpected error has been detected: CruiserService#refreshDevice
```

Troubleshooting

Re-execute the **Reload Conf.** operation.

If the issue is not resolved, refer to "System Administrator Corrective Action" of the relevant message in the *ETERNUS SF Messages* to take corrective action.

2.1.9.4 swstf5412 message is displayed

Problem

If the Management Server is Windows Server 2012, regardless of whether a valid port number or protocol name is set for the rmiswstf service or the semswstf service, the **Reload Conf.** operation for the server fails with the swstf5412 message.

Troubleshooting

After checking that the following operation or commands are not running, re-execute the **Reload Conf.** operation for the server.
In addition, if the server configuration is being reloaded, do not execute the following operation or commands:

- **Reload Conf.** operation for other servers and storage devices in Web Console

- The following AdvancedCopy Manager commands for the configuration management:

  stgxfwcmdispsrv, stgxfwcmaddsrv, stgxfwcmdeldev, stgxfwcmdelsrv, stgxfwcmdispdev, stgxfwcmdisppat, stgxfwcmmodsrv, stgxfwcmsetdev

2.1.10 Thin Provisioning Pool cannot be created using Web Console

Problem

Creation of Thin Provisioning Pools using Web Console outputs the following error message and fails.

```
ERROR:ssmgr3414:The RAID group cannot be made by combining specified disks
```

Troubleshooting

If a Self Encryption Drive (SED) is selected for the disk in which a Thin Provisioning Pool is to be created and [Yes] is specified for Encryption, change the setting to [No].

2.1.11 Operations related to copy group are grayed out

Problem

If "???" is displayed in "Copy Direction" on the copy group details screen, each item in the Action pane is grayed out and unavailable.

Troubleshooting

If "???" is displayed in "Copy Direction" on the copy group details screen, refer to "Resolving for Displaying "???" in Advanced Copy Status" in the *ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module* and troubleshoot.

In addition, if **Connection Type** is set to "Access from Volume" or "Access from Network" and then changed to "Use as Remote Partner (REC)" using Web Console, "???" is displayed and each item in the Action pane is grayed out and unavailable.
In this case, refer to "Delete the ETERNUS Disk storage system that is defined to the copy group, and re-register this as a remote ETERNUS Disk storage system" in the Cause column and troubleshoot.

2.1.12 Copy pairs cannot be created

Problem

Creation of copy pairs using Web Console fails with the following error.

```
esccs02015 An error occurred while executing the operation.
```

Troubleshooting

For the Management Server, if the management information related to AdvancedCopy Manager CCM is changed using the command line, an inconsistency with Web Console may occur. Perform the following steps to take action:

1. Check whether the copy pair that you tried to create is displayed in Web Console.

2. If it is displayed, perform the following steps to remove the inconsistency of management information:

   a. Create a target copy pair using the "acpair add" command.

b. Using Web Console, perform the **Reload Conf.** operation for the storage device where the volumes for the target copy pair exist.

If it is not displayed, collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2.1.13 Advanced Copy operations cannot be executed or cancelled

Problem

Advanced Copy operations using Web Console cannot be executed or cancelled.

```
esccs02170 The operation could not be executed on the specified copy group.
```

or

```
ccm4005 The specified copy pair was not found. copy group=copyGroup, pair=copyPair
```

Troubleshooting

For the Management Server, if the management information related to AdvancedCopy Manager CCM is changed using the command line, an inconsistency with Web Console may occur. Perform the following steps to take action:

1. Check whether a copy group or copy pair is displayed in the output result of the "acgroup detail" command.

2. If it is not displayed, perform the following steps:

   a. Create a copy group or copy pair using the "acgroup create" command or "acpair add" command.

   b. Using Web Console, perform the **Reload Conf.** operation for the storage device where the volumes for the target copy pair exist.

   If it is displayed, collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2.1.14 Advanced Copy executed volumes cannot be removed ("Delete" in Action pane is grayed out)

Problem

After executing the "acgroup remove" command or the "acpair remove" command, when trying to delete the volumes for which Advanced Copy were executed, you cannot perform the deletion operation because **Delete** in the Action pane is grayed out.

Troubleshooting

Perform the following steps to take action:

1. Using ETERNUS Web GUI, remove the target volumes.

2. Using Web Console, perform the **Reload Conf.** operation for the storage device where the target volumes existed.

2.1.15 Troubleshooting export does not terminate

Problem

Troubleshooting export does not terminate using Web Console and the following message keeps displaying on the screen and the screen does not change.

```
Export process is in progress. Wait a few moments
```

Troubleshooting

Perform the following procedure:

1. Click **Close** in the browser to close the browser.

2. Log in to the Management Server and execute the "esfsnap" command to collect data for troubleshooting.
   For information on how to use the "esfsnap" command, refer to the following information:

   - "esfsnap (Express's Manager Troubleshooting Information Collection Command)" in the *ETERNUS SF Express Operation Guide*

   - "esfsnap (Troubleshooting Information Collection of Manager)" in the *ETERNUS SF Storage Cruiser Operation Guide*

   - "esfsnap (AdvancedCopy Manager's Manager Troubleshooting Data Collection Command)" in the *ETERNUS SF AdvancedCopy Manager Operation Guide*

2.1.16   License registrations to ETERNUS Disk storage system fail

Problem

When you register licenses to an ETERNUS Disk storage system using the "esflm" command, the command terminates with an error and the registration fails.

Troubleshooting

Make sure the following interface settings are enabled in advance.

Storage Device Name	Interface settings
ETERNUS DX60 S2 ETERNUS DX60/DX80/DX90	Telnet connection
ETERNUS DX S5 series ETERNUS DX S4 series ETERNUS DX S3 series ETERNUS DX S2 series (excluding DX60 S2)	SSH connection
ETERNUS AF All-Flash Arrays ETERNUS DX200F	

2.1.17   Tape library is not found and cannot be registered

Problem

When you register a tape library using Web Console, the tape library is not found and the registration fails.

Troubleshooting

The registration method differs depending on the tape library.

If the method for registering the ETERNUS LT250/LT270 is used for tape libraries other than the ETERNUS LT250/LT270, they are not discovered.

Check the tape libraries to be registered and re-register them with the following procedure:

- For the ETERNUS LT250/LT270

  1. On the global navigation tab, click **Storage**.

  2. On the Category pane, click **Tape Library**.
     The registered tape libraries are displayed on the Main pane.

  3. On the Action pane, click **Discover** under **Tape Library**.
     The information input screen is displayed.

4. Enter the IP address and SNMP community name, and then click **Discover**.

5. Confirm the information, and click **Register**.

- For tape libraries other than the ETERNUS LT250/LT270

    1. On the global navigation tab, click **Storage**.

    2. On the Category pane, click **Tape Library (Manual)**.
       The registered tape libraries are displayed on the Main pane.

    3. On the Action pane, click **Register** under **Tape Library**.
       The information input screen is displayed.

    4. Enter the necessary information, and then click **Register**.

2.1.18   When a device is added, "Device is already managed" message is output

Problem

When a device is added, the warning message "Device is already managed" is output.

Troubleshooting

On the Management Server, execute the "stgxfwcmdispdev" command. If the target device is associated with a server that has already been removed, execute "Action when Managed Server information cannot be deleted" in the *ETERNUS SF AdvancedCopy Manager Operation Guide*.

2.1.19   It takes time to add or reload devices

Problem

If the Managed Server OS is Linux, it takes a lot of time to add or reload devices using Web Console.

Troubleshooting

Check the power status of the ETERNUS Disk storage system connected to the Managed Server.
If the ETERNUS Disk storage system is not powered on, power it on.

2.1.20   When deleting a device of the server, esccs00191 error is generated

Problem

The error esccs00191 may occur due to the timing of an internal process if **Delete** is clicked before the screen is completely displayed when you delete a device on the server with Web Console.

Troubleshooting

Perform the following operations:

1. Restart ETERNUS SF Manager.

2. Re-execute the operation that generated the error. When the screen is completely displayed, click **Delete**.

For errors that occur even if the button is clicked after the screen is completely drawn, refer to "Collecting Troubleshooting Information" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2.1.21   Displayed information is garbled

Problem

Information such as mount points displayed on Web Console is garbled.
The garbled information is as follows:

- Server information

    - Server name

    - Guest machine name of VMware

    - VMware datastore name

- Device information

    - Device name

    - Device mount point name

- Information for Symfoware backup operation

    - Symfoware log group name

    - Symfoware database space name

Troubleshooting

If multi-byte characters (Japanese etc.) are used for the target information, change them to single-byte characters (alphanumeric characters etc.) as shown below:

- Server information

    Delete the Managed Server that uses multi-byte characters, and after changing to single-byte characters (alphanumeric characters etc.), add the Managed Server.
    For information on how to delete a Managed Server, refer to "Deleting Managed Server" in the *ETERNUS SF AdvancedCopy Manager Operation Guide*. For information on how to add a Managed Server, refer to "Adding Managed Server" in the *ETERNUS SF AdvancedCopy Manager Operation Guide*.

- Device information

    - For the device name

        After changing to single-byte characters (alphanumeric characters etc.), load the device information. Refer to "Fetching Device Information on Managed Server" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* for details.

    - For the mount point name

        After changing to single-byte characters (alphanumeric characters etc.), change the device configuration. Refer to "Changing Device Configuration" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* for details.

- Information for Symfoware backup operation

    After changing to single-byte characters (alphanumeric characters etc.), load the device information. Refer to "Fetching Device Information on Managed Server" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* for details.

2.1.22   The ssmgr3533 message is displayed when the NAS authentication server is configured

Problem

If a domain administrator password that includes \ ? " ' is specified when configuring a NAS authentication server, the following message is displayed and the configuration fails.

```
SEVERE:ssmgr3533:The specified value cannot be used for specified storage device (xxxxx).
```

Troubleshooting

If the domain administrator password includes the following single-byte characters, the authentication server cannot be configured from Web Console:
\ ? " '

Check whether any of the above single-byte characters are included in the domain administrator password.
If an unusable single-byte character is used, take either of the following actions:

- Change the domain administrator password on the authentication server and re-execute the operation.

- Using ETERNUS CLI, configure the authentication server.

Refer to the *ETERNUS CLI User's Guide* for information on how to use ETERNUS CLI.

2.1.23 When creation fails for NAS interfaces, redundant ports become Active-Standby connection

Problem

For the following conditions, the ssmgr3506 message is output and the NAS interface that is specified for the redundant ports is configured using an Active-Standby connection:

- A NAS interface is created, and

- A Single connection port is specified for the redundant ports, and

- An IP address that is already in use is specified.

Troubleshooting

By re-creating the NAS interface with the following conditions, it is configured using the Active-Active connection:

- A valid IP address is entered, and

- Active-Standby connection ports are specified for the redundant ports.

2.1.24 Backup settings for the NAS environment fail

Problem

If the NAS volume of the settings target satisfies either of the following conditions, the backup settings for the NAS volume fail:

- When characters other than those shown below are used for the NAS volume
  Single-byte alphanumeric character, minus (-), underscore (_), hash (#), period (.), plus (+)

- When the following conditions are all satisfied

    - The Management Server OS is Windows.

    - A NAS volume with the same name that only differs in case sensitivity from the target NAS volume exists and the backup settings are applied to the target NAS volume.

Troubleshooting

Re-execute the backup settings for the NAS volume using the following procedure:

1. Change the volume name using ETERNUS Web GUI.

2. In order to reflect the change made in step 1 in the ETERNUS SF system, perform the **Reload Conf.** operation for the storage device using Web Console.

3. Using Web Console, confirm that the volume name is changed.

4. Re-execute the backup settings for the NAS volume.

2.1.25   Deletion of the shared folder fails

Problem

If either of the following conditions is satisfied, the deletion of the shared folder fails with the following message.

- Files or folders exist under the specified shared folder

- The specified shared folder is being accessed by a client

```
ERROR:ssmgr3489:Unable to execute command detail message=ED733
```

Troubleshooting

Re-execute the operation after taking either of the following actions.

- Files or folders exist under the specified shared folder
  Delete all of the files and folders.

- The specified shared folder is being accessed by a client
  Stop the access to the shared folder.

2.1.26   There are symbols that cannot be used for the password during registration of the ETERNUS Disk storage system

Problem

When registering an ETERNUS Disk storage system using Web Console, some symbols cannot be used for the password.

Troubleshooting

The following table shows the symbols that can and cannot be used for the password when registering an ETERNUS Disk storage system using Web Console:

- When ETERNUS SF Manager Version 16.0 or earlier is used

Usable Symbols	Unusable Symbols
! - . _	# $ & ( ) + , / @ [ ] ^ ` { | } ~ : ; < = > \ ? " ' % *

- When ETERNUS SF Manager Version 16.1 or later is used

Storage Device Name	Usable Symbols	Unusable Symbols
ETERNUS DX S5 series ETERNUS DX S4 series ETERNUS DX S3 series ETERNUS DX S2 series (excluding DX60 S2) ETERNUS AF All-Flash Arrays ETERNUS DX200F	! - . _ # $ & ( ) + , / @ [ ] ^ ` { | } ~ : ; < = >	\ ? " ' % *
ETERNUS DX60 S2 ETERNUS DX60/DX80/DX90 ETERNUS DX400 series ETERNUS DX8000 series	! - . _	# $ & ( ) + , / @ [ ] ^ ` { | } ~ : ; < = > \ ? " ' % *

> 📔 Note
> ┄┄
>
> If ETERNUS SF Manager Version 16.1 or 16.2 is used, the above table shows the environment to which the latest patch is applied. Be sure to apply the latest patch.
> ┄┄

If the symbols that cannot be used for the password are used for a user password of an ETERNUS Disk storage system, after changing the password so that those symbols are not included, register the ETERNUS Disk storage system.

2.1.27 VVOL access paths cannot be configured

Problem

For a version of ETERNUS SF Manager within the range of 16.2 to 16.4, the **Connected Port** field on the **Select HBA and Port** page of the VVOL Access Path Setting wizard displays "connection_port_error" and **Connect** cannot be clicked because two or more access paths are set up for one HBA.

Troubleshooting

After deleting the other access paths so that only one access path is set for the target HBA, re-execute the VVOL access path setting operation.

2.1.28 A replication pair cannot be added to a replication group

Problem

A replication pair cannot be added to an existing replication group with Web Console for the following condition.

- The volume in the existing replication group belongs to an ETERNUS Disk storage system that is different from the ETERNUS Disk storage system volume to be set as the replication pair of that replication group.

Troubleshooting

Use the "swsrpsetvol" command.

2.1.29 Some actions cannot be performed on Web Console depending on the replication group state

Problem

If the following setting item values do not match for all replication pairs in the replication group, some actions cannot be performed when the replication group is specified (the action button is grayed out).

- Setting items

    Status, **Tracking**, **Copy Direction**, **Transfer Mode**, **Split Mode**, **Copy Type**

- Inoperable functions

    - **Start OPC**, **Cancel OPC** (*1)

    - **Start/Resume EC**, **Suspend EC**, **Reverse EC Direction**, **Cancel EC** (*1)

    - **Start/Resume REC**, **Suspend REC**, **Change REC Mode**, **Reverse REC Direction**, **Cancel REC** (*1)

    *1: Performing the **Cancel OPC**, **Cancel EC**, and **Cancel REC** is possible even if setting items other than **Copy Type** do not match.

Troubleshooting

Perform the operation by executing the command.

2.1.30 The operation to change the information of the NetApp FAS Series and AFF series fails with the swsag0018 message

Problem

The operation to change the IP address or SNMP community name of the following storage devices from Web Console fails with the swsag0018 message.

- NetApp FAS Series (with clustered Data ONTAP)

- NetApp AFF A series

Output message

```
SEVERE:swsag0018:The selected IP device cannot be found.
```

The above message is output to the operation log of Web Console.

Troubleshooting

The IP address and SNMP community name of the above storage devices cannot be changed from Web Console. Change them using the following procedure.

1. Delete the target storage device from this product.

2. Change the IP address or SNMP community name on the storage device.

3. Register the target storage device to this product again.

2.1.31 Disabling TLS 1.1/TLS 1.0 protocols used for access to the Management Server from a Web browser

Problem

For operation environments whose ETERNUS SF Manager version is 16.3 to 16.8A, disabling TLS 1.1/TLS 1.0 protocols used for access to the Management Server from a Web browser is required.

🛈 Note

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If the version of ETERNUS SF Manager is 16.2 or earlier, the troubleshooting procedure in this section cannot be performed. Upgrade ETERNUS SF Manager.

- When upgrading to version 16.9 or later

  Because TLS 1.1/TLS 1.0 protocols are disabled by default, no action is required after the upgrade.

- When upgrading to version 16.3 to 16.8A

  The troubleshooting procedure in this section must be performed after the upgrade.

....

Troubleshooting

- When the Management Server is a non-clustered system

  1. Stop the ETERNUS SF Manager service/daemon.

OS Type of Management Server	Service/Daemon Stop Procedure
Windows	Stop the following service. - ETERNUS SF Manager Apache Service
Solaris Linux	Execute the following shell script. - /opt/FJSVesfcm/bin/stopesf.sh

2. Edit the "httpd.conf" file.

   - File path

OS Type of Management Server	File Path
Windows	C:\ETERNUS_SF\Common\sys\apache\conf\httpd.conf (*1)
Solaris Linux	/etc/opt/FJSVesfcm/conf/apache/httpd.conf

   *1: File path when installed by default. If the installation destination is changed, match the file path to the environment.

   - Edited content

     Add "-TLSv1" and "-TLSv1.1" to the following line of the "httpd.conf" file.

     [Before] SSLProtocol ALL -SSLv2 -SSLv3
     [After] SSLProtocol ALL -SSLv2 -SSLv3 -TLSv1 -TLSv1.1

3. Start the service/daemon stopped in Step 1.

OS Type of Management Server	Service/Daemon Start Procedure
Windows	Start the following service. - ETERNUS SF Manager Apache Service
Solaris Linux	Execute the following shell script. - /opt/FJSVesfcm/bin/startesf.sh

- When the Management Server is a clustered system

  1. Stop the Management Server transaction.
     Refer to your cluster software manuals for information on how to stop the transaction.

  2. Edit the "httpd.conf" file.

     - File path

OS Type of Management Server	File Path
Windows	*<Stored-directory-for-shared-data-of-ETERNUS SF Manager-common>*\apache\conf\httpd.conf
Solaris Linux	*<Mountpoint-of-shared-disk-for-shared-data>*/etc/opt/FJSVesfcm/conf/apache/httpd.conf

     - Edited content

       Add "-TLSv1" and "-TLSv1.1" to the following line of the "httpd.conf" file.

       [Before] SSLProtocol ALL -SSLv2 -SSLv3
       [After] SSLProtocol ALL -SSLv2 -SSLv3 -TLSv1 -TLSv1.1

  3. Start the Management Server transaction.
     Refer to your cluster software manuals for information on how to start the transaction.

2.1.32   Adding replication pairs fail with the "Specified volumes have mutually overlapping area." message

Problem

Adding replication pairs in the replication group creation screen of Web Console fail with the following message.

```
Specified volumes have mutually overlapping area.
```

Troubleshooting

If the above message appears even though the volumes do not have overlapping areas, clear the browser cache and try again.

If the problems remain even after trying again, register the replication pair with the "swsrpsetvol" command and update the Web Console information by performing the **Reload Conf.** operation in Web Console.

2.2   ETERNUS SF Express

2.2.1   Snapshot acquisition of the NAS volume fails

Problem

A snapshot acquisition of the NAS volume fails and the following event is notified.

```
E 40060001 Snapshot execution was failed. NAS Volume=xxx SDV=xxx
```

Troubleshooting

Check the following points:

- SDP Free Space

  Check whether there is insufficient SDP free space. Refer to "Prior Configuration of Operation Management Server" in the *ETERNUS SF Express Operation Guide* for the required SDP capacity.

- Copy Table Size

  Review the copy table size on the disk storage system. The values that can be set for the copy table size differ according to the model of the device. Refer to the ETERNUS Disk storage system manuals for information on the specification of the copy table size.
  The procedure for changing the copy table size is explained according to the presence of the AdvancedCopy Manager license.

  - When the AdvancedCopy Manager license is purchased

    Configure the copy table size using Web Console. Refer to "Configure Copy Table Size for Advanced Copy" in the *ETERNUS SF Web Console Guide* for the configuration procedure of the copy table size.

  - When the AdvancedCopy Manager license is not purchased

    Configure the copy table size using ETERNUS Web GUI.

- Other than those above

  Check the other events to make sure there are no failures occurring in the disk storage system.

2.2.2   Creation of Thin Provisioning Volumes fails with the ssmgr3428 message

Problem

The creation of Thin Provisioning Volumes fails with the ssmgr3428 message.

Troubleshooting

The RAID group that constitutes the Thin Provisioning Pool is in a failed state. Perform the following steps to take corrective action:

1. Using Web Console, check the status of the Thin Provisioning Pool and the status of the RAID group that constitutes the Thin Provisioning Pool and identify the RAID group that is in the failed state.

2. Recover the RAID group by referring to the *Web GUI Online Help* of hardware.

3. Recreate the Thin Provisioning Volume.

📖 Information
....
If the ssmgr3428 message is output while creating a Thin Provisioning Volume, no RAID group number is displayed in the message.
....

2.2.3 SNMP Traps cannot be received (for Windows environment)

Problem

SNMP Traps from all the devices cannot be received by the Management Server whose ETERNUS SF Manager for Windows is installed and configured as follows.

- ETERNUS SF Manager has been installed in a directory other than the default installation directory (C:\ETERNUS_SF).

- ETERNUS SF Manager has been configured to use the ETERNUS SF SNMP Trap Service.

Troubleshooting

Perform the following procedures:

1. In the Windows Services screen, stop the following services in the order listed.

    - ETERNUS SF Manager Tomcat Service

    - ETERNUS SF SNMP Trap Service

2. Create a symbolic link from the "$TMP_DIR\PIPEFILE" file to the "$INS_DIR\PIPEFILE" file.

    Execute the following command in the command prompt.

    ```
    > mklink $TMP_DIR\PIPEFILE $INS_DIR\PIPEFILE
    ```

    $INS_DIR means "Program Directory" specified at the ETERNUS SF Manager installation.
    $TMP_DIR means "Work Directory" specified at the ETERNUS SF Manager installation.

3. In the Windows Services screen, start the following services in the order listed.

    - ETERNUS SF SNMP Trap Service

    - ETERNUS SF Manager Tomcat Service

2.3 ETERNUS SF Storage Cruiser

2.3.1 Configuration reload takes time when a server is selected

Problem

A configuration reload takes a long time for AIX servers that are installed with Storage Cruiser's agent using Web Console. Moreover, the HBA port information for the server may not be properly acknowledged.

Troubleshooting

- Make sure all the HBA ports are properly connected.

- If there are any fiber channel devices that correspond to an unconnected HBA port, delete it when possible. For information on how to check the match of HBA ports and fiber channel devices, refer to the AIX document.
  In addition, if you restart the server, re-performing this procedure may be required.

  [Operation example]
  When fiber channel device "fcs3" is not used:

  ```
  # /usr/sbin/rmdev -Rdl fcs3
  ```

If the above case is not applicable, refer to "Collecting Troubleshooting Information" in the *ETERNUS SF Storage Cruiser Operation Guide* to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2.3.2 Registering/reloading Hyper-V host fails with the esccs0215 message

Problem

When you register or reload the configuration of a Hyper-V host, it fails with the esccs02015 message.

Troubleshooting

If a USB flash memory is mounted on the Hyper-V host, after temporarily removing it from the server on which the Hyper-V host is running, re-execute the failed operation.

If the above case is not applicable, refer to "System Administrator Corrective Action" for the esccs02015 message in the *ETERNUS SF Messages* to take corrective action.

2.3.3 The status of the registered server is displayed as "Unknown"

Problem

After the server that is registered in the ETERNUS SF system joins the domain, the status of the server may be displayed as "Unknown".

Troubleshooting

Depending on the domain joined, the host name of a server may have been rewritten from lower case to upper case and there is a possibility that Storage Cruiser's manager failed to recognize the correct host name of the server. Check whether this event occurs after the server joins the domain.
For that case, after deleting the server in which the problem occurs from the ETERNUS SF system, specify a host name written in upper case letters, and re-register the server to the ETERNUS SF system.

2.3.4 Non-response may be caused by the deletion of FC switches

Problem

With Web Console, a non-response may be caused by deleting any of the following fibre channel switches:

- ETERNUS SN200 series Fibre Channel switch

- Brocade Fibre Channel switch

- PRIMERGY Fibre Channel switch blade

Troubleshooting

After restarting the ETERNUS SF Manager, delete the relevant FC switch again.

2.3.5 An event that has an empty message is displayed for an FC switch

Problem

An event that has an empty message may be displayed for an FC switch with Fabric OS v8.0 or later.

Troubleshooting

This event can be ignored because no action is required. To prevent this event from being displayed, set connUnitEventTrap of FA-TRAP to "no" with the "snmpConfig --set mibCapability" command.

A setting example using the "snmpConfig --set mibCapability" command is as follows.

```
sn200:admin> snmpConfig --set mibCapability
FE-MIB: YES
SW-MIB: YES
(snip)
FA-TRAP (yes, y, no, n): [yes]
        connUnitStatusChange (yes, y, no, n): [yes]
        connUnitEventTrap (yes, y, no, n): [yes] no
        connUnitPortStatusChange (yes, y, no, n): [yes]
(snip)
sn200:admin>
```

2.3.6 The information update process for an FC switch does not finish

Problem

For an FC switch with Fabric OS v6.3 or later, if the timeout value of the login session is set to "0", the information collection processes, such as reloading the settings or updating access paths, do not finish so the following events may occur:

- The operation that was executed from Web Console remains "Executing"

- The event log display is not updated

Troubleshooting

Perform the following procedure:

1. Set the timeout value of the login session to the default value of 10 minutes by executing the "timeout" command for the FC switch.

2. Restart the service for ETERNUS SF Manager.
   If the service restart fails, reboot the Management Server.

3. With Web Console, perform the **Reload Conf.** operation for the FC switch.

4. Re-perform the operation that remained in the "Executing" state.

2.3.7 Operations for an FC switch do not finish

Problem #1

For an FC switch with Fabric OS v8.2.1c or later, the operations related to the FC switch, such as reloading the settings, creating access paths, and updating access paths, do not finish so the following events may occur:

- The operation that was executed from Web Console remains "Executing"

- The event log display is not updated

Troubleshooting for Problem #1

For an FC switch with Fabric OS v8.2.1c or later, the default password cannot be used for the admin account and user account of the FC switch. Perform the following procedure:

1. Change the password for the admin account and user account of the FC switch.
   Do not forget the new password because it is required in step 3.

2. Restart the service for ETERNUS SF Manager.
   If the service restart fails, reboot the Management Server.

3. With Web Console, reflect the new password specified in step 1 for this product.
   For the procedure to reflect the setting, refer to "Reset FC Switch Password" in the *ETERNUS SF Web Console Guide*.

Problem #2

For an attempt to delete an FC switch that is automatically detected and registered, and whose support level is not A, the execution state remains "Executing" and the operation may not be completed.

Troubleshooting for Problem #2

Delete the FC switch using the following procedure.

1. Restart the service for ETERNUS SF Manager.

2. Shut down network communication between the Management Server and the FC switch by performing either of the following.

   - Configure a firewall for the Management Server

   - Remove the LAN cable between the Management Server and the FC switch

3. Delete the FC switch from Web Console.

4. Restore the network communication that was shut down in Step 2.

🛈 Note
· ·

When network communication between the Management Server and the FC switch is temporarily shut down, the following effects will continue until network communication is restored.

- If the device is managed by other products in the Management Server, the device becomes unmanageable.

- Storage Cruiser displays the status of the device whose network communication is shut down as "Unknown".
· ·

2.3.8　The FC switch operation fails after its SSH communication security setting is changed

Problem

The following phenomena may occur in the Principal switch with Fabric OS v7.4 or later if the SSH communication security setting is changed from the default.

- Registration of the Principal switch fails

- If the **Reload Conf.** operation is performed in Web Console for the Principal switch, it fails with the esccs02015 message

- If the **Reload Conf.** operation is performed in Web Console for the Principal switch, the state of that Principal switch becomes "Unknown"

- Operations related to the access path (such as creating access paths and updating access paths) fail

- The zoning information of FC switches that are registered in Storage Cruiser is not displayed in Web Console

- The "storageadm zone" command terminates with an error

Troubleshooting

Perform the following procedure.

1. Set the SSH communication security of FC switches that are registered in Storage Cruiser as shown below.

    - Set "diffie-hellman-group-exchange-sha1" in SSH Kex

    - Set "hmac-sha1" in SSH MAC

2. In Web Console, perform the **Reload Conf.** operation for the Principal switch.

After performing the above procedure, re-execute the operations in which an error occurred as required.

2.3.9 Operations regarding the ETERNUS Disk storage system from Storage Cruiser fails with the ssmgr3489 message (detailed message ID is ED180)

Problem

Operations regarding the ETERNUS Disk storage system from Storage Cruiser, including when the process of Storage Cruiser is internally performed from AdvancedCopy Manager, fails with the ssmgr3489 message (detailed message ID is ED180).

Troubleshooting

The process cannot be performed because a Flexible Tier Pool Element migration is in progress.
Refer to "System Administrator Corrective Action" for the ssmgr3568 message in the *ETERNUS SF Messages* and take corrective action.

2.3.10 "Reload Conf." operation regarding the ETERNUS DX S2 series fails with the ssmgr3489 message

Problem

The **Reload Conf.** operation for the ETERNUS DX S2 series fails with the ssmgr3489 message if the firmware version of the storage system is earlier than V10L40.

Troubleshooting

Take either of the following actions:

- Upgrade the firmware version of the ETERNUS DX S2 series to V10L40 or later.

- If a Thin Provisioning license has been obtained, register it.

Refer to the *ETERNUS Web GUI User's Guide* hardware manual for details on how to update the firmware version and how to register a Thin Provisioning license.

2.3.11 All the IP addresses for the virtual server are not displayed

Problem

For VMware and Hyper-V servers, if a VM guest to which multiple network adapters are defined is displayed using Storage Cruiser, only one IP address is displayed.

Troubleshooting

Displaying only one IP address is a specification of this product.
The displayed IP address is the primary IP address that is defined to a VM guest.

2.3.12 VVOL access path setting fails with the ssmgr3489 message (Detailed message ID: ED2B2)

Problem

In a VMware vSphere Virtual Volumes environment, the VVOL access path setting fails with the ssmgr3489 message (detailed message ID: ED2B2).

Troubleshooting

The VVOL access path cannot be set because the Thin Provisioning function of the ETERNUS Disk storage system is disabled. After enabling the Thin Provisioning function of the ETERNUS Disk storage system, re-execute the operation.

2.3.13 VVOL datastore does not change to online

Problem

If the installed ETERNUS VASA Provider of the Management Server that satisfies the following conditions is upgraded to V2.1.0 or later, the VVOL datastore does not change to online.

- The installed version of Storage Cruiser is 16.2

- The patch T010894WP-05 or later has not been applied to the manager program

Troubleshooting

Perform the following procedures:

1. Apply all the following patches to the manager program.
    - T010894WP-05 or later

    - T010908WP-04 or later

    - T011238WP-01 or later

    - T011246WP-01 or later

    - T011039WP-02 or later

2. Restart the service of ETERNUS VASA Provider.

2.3.14 In spite of sufficient free space in the VVOL datastore, creating virtual machines fail due to insufficient free space in the VVOL datastore

Problem

Even though a VVOL datastore with sufficient free space is specified to create a virtual machine with vSphere Web Client, insufficient space in the VVOL datastore causes it to fail. It fails even if the Tier pools constituting the VVOL datastore is checked and it has sufficient free space as well as having a Tier pool that satisfies the policy.

Troubleshooting

- Actions for when this event occurs

  Take any of the following actions for the VVOL datastore specified when creating a virtual machine.

  - Among the Virtual Volumes in a Tier pool that satisfies the policy and has the least number of volumes, move the largest Virtual Volume to another VVOL datastore that satisfies the compatibility of the virtual machine storage policy. To move Virtual Volumes, contact the VM administrator to move them on a per virtual machine basis from vSphere Web Client.

- Among the Tier pools constituting a VVOL datastore, expand the sub-pool capacity for the Tier pool that satisfies the policy and has the least number of volumes.

- Add a Tier pool that satisfies the policy in the VVOL datastore.

- To prevent this event from occurring

Perform one of the following operations to avoid the event:

Operation 1

- Equalize the capacity of the Tier pools constituting a VVOL datastore.

- Equalize the disk size of the virtual machines created in the same VVOL datastore.

Operation 2

Create a VVOL datastore so that Tier pools satisfying the same policy do not exist in one VVOL datastore.

2.3.15   VVOL datastore not displayed in vSphere Web Client

Problem

VVOL datastores created with Web Console are not listed on "Backing Storage Container" of vSphere Web Client.

Troubleshooting

After clicking **Rescan** on the Storage Providers screen in vSphere Web Client, display it again.

2.3.16   VVOL datastores cannot be deleted in VMware vSphere High Availability environment

Problem

In a VMware vSphere High Availability environment, even if a virtual machine is deleted, the host is deleted from the clustered system, and vSphere HA is disabled, the target VVOL datastore cannot be deleted.

Troubleshooting

Take the following steps to delete the VVOL datastore.

1. First, perform the following steps a - d from vSphere Web Client.

    a. If vSphere HA is not disabled, disable it.

    b. Configure the target VVOL datastore so that it is mounted from one VM host.

    c. Delete the ".vSphere-HA" folder under the target VVOL datastore.

    d. Unmount the target VVOL datastore.

2. Next, perform steps a - f from Web Console.

    a. On the global navigation tab, click **Storage**.

    b. On the Category pane, click **VVOL Management**.
        The items of the Category pane change into the items concerning the VVOL Management.

    c. On the Category pane, click **VVOL Datastore**.
        A VVOL datastore list is displayed on the Main pane.

    d. On the Main pane, click the target VVOL datastore checkbox.

    e. On the Action pane, click **Delete** under **VVOL Datastore**.
        The Delete VVOL Datastore page is displayed.

    f. Confirm that the target VVOL datastore is displayed, and then click **Delete**.

2.3.17 Virtual Volumes remain after failure to create or remove virtual machines

Problem

Because a timeout caused the creation or removal of a virtual machine to fail, even though the unnecessary virtual machine (Virtual Volume) was removed from vSphere Web Client, there are cases when the Virtual Volume may remain.

Troubleshooting

Refer to "Collecting Troubleshooting Information" in the *ETERNUS SF Storage Cruiser Operation Guide* to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2.3.18 In a VMware vSphere Virtual Volumes environment, a failure occurs when an operation is performed for multiple virtual machine simultaneously

Problem

In a VMware vSphere Virtual Volumes environment, when multiple virtual machines are simultaneously operated from vSphere Web Client or vSphere CLI, the specified operation fails.

Example cases

- Creation of a virtual machine

- Creation of a virtual machine clone

- Start of a virtual machine

Troubleshooting

Perform the vSphere Web Client operation or vSphere CLI operation on a per virtual machine basis and wait for completion of the operation before starting the operation on the next virtual machine.

2.3.19 In a VMware vSphere Virtual Volumes environment, other troubles occur

Problem

In a VMware vSphere Virtual Volumes environment, other troubles that are not mentioned in this document occur.

Troubleshooting

Refer to the *ETERNUS VASA Provider Release Note* and take corrective action. Even if they are not solved, refer to the following sections in the manuals to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

- "Obtaining Maintenance Information" in the *ETERNUS VASA Provider User's Guide*

- "Collecting Troubleshooting Information" in the *ETERNUS SF Storage Cruiser Operation Guide*

2.3.20 SNMP Traps cannot be received (for Windows environment)

Problem

SNMP Traps from all the devices cannot be received by the Management Server whose ETERNUS SF Manager for Windows is installed and configured as follows.

- ETERNUS SF Manager has been installed in a directory other than the default installation directory (C:\ETERNUS_SF).

- ETERNUS SF Manager has been configured to use the ETERNUS SF SNMP Trap Service.

Troubleshooting

Perform the following procedures:

1. In the Windows Services screen, stop the following services in the order listed.

    - ETERNUS SF Manager Tomcat Service

    - ETERNUS SF SNMP Trap Service

2. Create a symbolic link from the "$TMP_DIR\PIPEFILE" file to the "$INS_DIR\PIPEFILE" file.

   Execute the following command in the command prompt.

   ```
   > mklink $TMP_DIR\PIPEFILE $INS_DIR\PIPEFILE
   ```

   $INS_DIR means "Program Directory" specified at the ETERNUS SF Manager installation.
   $TMP_DIR means "Work Directory" specified at the ETERNUS SF Manager installation.

3. In the Windows Services screen, start the following services in the order listed.

    - ETERNUS SF SNMP Trap Service

    - ETERNUS SF Manager Tomcat Service

2.3.21   SNMP Traps cannot be received (for Linux environment)

Problem

If the Management Server is Linux, the traps from all devices may fail to be monitored during operation.

Troubleshooting

For cases that fall under conditions 1 and 2, execute the provided commands in "Recovery method" mentioned below to respond to the trouble:

- Condition #1: The following message is output in the "/var/log/messages" file.

```
snmptrapd[%d]: AgentX master agent failed to respond to ping. Attempting to re-register.
```

   %d: Process ID of the daemon

- Condition #2: After the message in Condition #1 is output, the following message is not output in the "/var/log/messages" file.

```
snmptrapd[%d]: NET-SNMP version %s AgentX subagent connected
```

   %d: Process ID of the daemon
   %s: Version of NET-SNMP

Recovery method

To execute the commands, OS administrative (root) privileges are required.

1. Stop the snmpd and snmptrapd services.

   ```
   # service snmptrapd stop
   # service snmpd stop
   ```

2. Check whether the snmpd lock file has remained and if so, delete it.

   Check for the lock file.

```
# ls /var/lock/subsys/snmpd
```

Delete the lock file.

```
# rm /var/lock/subsys/snmpd
```

3. Start the related services and check them.

    Start the services.

```
# service snmpd start
# service snmptrapd start
```

Check whether the services are started.

```
# service snmpd status
# service snmptrapd status
```

For cases other than the above conditions, refer to "Collecting Troubleshooting Information" in the *ETERNUS SF Storage Cruiser Operation Guide* to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2.3.22 Traps cannot be monitored for ETERNUS Disk storage systems

Problem

Traps from ETERNUS Disk storage systems cannot be received using Storage Cruiser.

Troubleshooting

-   When Storage Cruiser's manager is Version 16.2 or earlier:

    When the SNMP version is set to a version other than "v1" in the SNMP agent trap settings of the ETERNUS Disk storage system, set the SNMP version to "v1".

    Storage Cruiser uses SNMP version "v1". For this reason, if you set SNMP version to "v2c" or "v3" for the SNMP agent trap settings on the ETERNUS Disk storage system side, traps from the disk storage system cannot be received.

-   When Storage Cruiser's manager is Version 16.3 or later:

    If you set SNMP version to "v2c" for the SNMP agent trap settings on the ETERNUS Disk storage system side, traps from the disk storage system cannot be received. When the SNMP version is set to "v2c" in the SNMP agent trap settings on the ETERNUS Disk storage system, set SNMP version to "v1" or "v3".

2.3.23 Mount points for Windows servers are not displayed

Problem

If the load balancing function of the multipath driver is used in a Windows server that has Storage Cruiser's agent installed, the mount points for the server may not be displayed for the correlation management function.

Troubleshooting

If the I/O load affects a disk using load balancing, the mount points for the disk may not be displayed.
Perform the **Reload Conf.** operation for the server while there is no I/O load to display the mount points.

2.3.24 Acquiring performance information for newly created volumes fails

Problem

After you create a new volume in the ETERNUS Disk storage system, Storage Cruiser's performance information for the newly created volume cannot be obtained.

Troubleshooting

Refer to "Updating configuration information" in the *ETERNUS SF Storage Cruiser Operation Guide* to update the configuration information for the performance management function.

2.3.25   Abnormal performance information is displayed

Problem

When the performance management function is used for the ETERNUS Disk storage system with Storage Cruiser, if the following operations are performed, abnormal performance information is displayed.

Condition #1

The following operations are performed in the ETERNUS Disk storage system:

- Powering on the device

- Hot maintenance

- Hot expansion

- Rebooting a module configured on the device

Troubleshooting for condition #1

When the operations of "Condition #1" are performed, because a reboot process is executed on the ETERNUS Disk storage system, Storage Cruiser cannot obtain accurate performance values from the device. Ignore the performance information during the above operation period. Although the performance information temporarily shows abnormal values during the operation period, it returns to normal upon completion of the operations. Therefore, no recovery operation is required.

Condition #2

The following operation is performed in the ETERNUS Disk storage system or with Web Console:

- Creating a new volume using the same volume number as the previously deleted volume

Troubleshooting for condition #2

When the operations of "Condition #2" are performed, Storage Cruiser cannot obtain accurate performance values from the device because of the firmware bug in the ETERNUS Disk storage system. Ignore the performance information shown immediately after the operation. Although the performance information temporarily shows abnormal values, it returns to normal after a while. Therefore, no recovery operation is required.

Condition #3

The following operations are performed in the ETERNUS Disk storage system:

- RAID Migration

- Non-disruptive Storage Migration

Troubleshooting for condition #3

When the operations of "Condition #3" are completed, Storage Cruiser cannot obtain accurate performance values from the device because a volume switching is being performed in the ETERNUS Disk storage system. Ignore the performance information shown immediately after the operations are completed. Although the performance information temporarily shows abnormal values, it returns to normal after a while. Therefore, no recovery operation is required.

2.3.26   Performance management function fails to work properly

Problem

The performance management function for the ETERNUS DX80 S2/DX90 S2, DX400 S2 series, DX8000 S2 series terminates with the error: ssmgr3212.

Troubleshooting

Using ETERNUS Web GUI, permit "Maintenance Secure Connection" in "Configure Firewall" for the ETERNUS Disk storage system. With this, tcp port 1372 becomes available and the operation can normally be performed.

2.3.27 Performance monitoring interval cannot be specified

Problem

On the Start Performance Management screen, the monitoring interval mentioned in "Setting monitoring intervals" of the *ETERNUS SF Storage Cruiser Operation Guide* cannot be specified.

Troubleshooting

The number of logical volumes is calculated with the formula "(Maximum number of monitored volumes - Minimum number of monitored volumes) + 1".

Specify a monitoring interval that corresponds to the calculated number of logical volumes.

2.3.28 The operating status of the performance management function remains "Recovering" and does not recover

Problem

When the performance management function is in use for an ETERNUS Disk storage system, the operating status may remain "Recovering".

Troubleshooting

If the ETERNUS Disk storage system or network is in an abnormal state, recover it to a normal status. Depending on the recovery, the operating status is changed to "Monitoring".

Regardless of whether the ETERNUS Disk storage system or network is in a normal state, if its operating status remains "Recovering", restart ETERNUS SF Manager.

After the restart, performing the **Reload Conf.** operation to the target system displays the proper status.

2.3.29 The operating status of the performance management function becomes "Error"

Problem

If the performance information of the power consumption and temperature is obtained with the performance management function when an ETERNUS Disk storage system is in the following statuses, the operating status of the performance management function may be displayed as Error:

- Immediately after starting the ETERNUS Disk storage system
- Immediately after switching the Master CM of the ETERNUS Disk storage system

Troubleshooting

Take the following steps to stop and start performance monitoring:

1. Record the following performance monitoring settings.

    - Interval before obtaining the performance information (in seconds)

- Performance monitoring targets (Minimum LUN_V, Maximum LUN_V)

2. Stop performance monitoring.
   Refer to "Instruction for Stopping Performance Management" in the *ETERNUS SF Storage Cruiser Operation Guide*.

3. Start performance monitoring based on the settings recorded in step 1.
   Refer to "Instruction for Performance Management" and "Setting Monitoring Intervals" in the *ETERNUS SF Storage Cruiser Operation Guide*.

2.3.30 When performing performance management related operations, the swsag0679 or ssmgr3212 message is displayed

Problem

Performing the following performance management operations displays the message "swsag0679 Unexpected error occurred." or "ssmgr3212 Failed to set or obtain the information for the storage device. Error code=*xxx*, detail message=*yyy*".

- Start instruction for performance monitoring

- Stop instruction for performance monitoring

- Change the configuration for performance management

Troubleshooting

Take the following actions:

Target systems: ETERNUS DX80 S2/DX90 S2, DX400 S2 series, DX8000 S2 series

1. Reconfigure the account for target system using Web Console.

2. Check the performance management settings for the target system (extent of monitored volumes, monitoring interval).

3. Restart ETERNUS SF Manager.

4. Stop performance monitoring.

5. Start performance monitoring based on the settings checked in step 2.

2.3.31 When performing performance management related operations, the swsag0669 message is displayed

Problem

Performing the following performance management operations displays the message "swsag0669 Unable to read a config XML file *xxx*. The file does not exist or the contents of the file are incorrect.".

- Start instruction for performance monitoring

- Change the configuration for performance management

Troubleshooting

Perform the following procedure:

1. Delete the following files.

   - The file displayed in the message

   - The file with ".bak" appended to the file name displayed in the message

2. Start the performance monitoring.

2.3.32 Automated Storage Tiering fails with the swsag0652 message

Problem

Even if the target device or network environment is normal, the Automated Storage Tiering process fails with the swsag0652 message.

Troubleshooting

It is possible that the account information for the target device was changed during registration. If the account information has been changed, restore it.

Use the procedure described in "Set and change the information of the account who can access ETERNUS Disk storage system" in the *ETERNUS SF Web Console Guide*.

2.3.33 After a Tier pool creation with the Automated Storage Tiering terminates in an error, if a Tier pool is created with the same name, an error that the Tier pool has been registered occurs

Problem

After a Tier pool creation with the Automated Storage Tiering terminates with the STXS7004 message, if a Tier pool is created with the same name, an error that the Tier pool has been registered occurs.

Troubleshooting

If the operation terminates with the STXS7004 message, the Tier pool may have been created within the device only. Check with ETERNUS Web GUI whether the specified Tier pool has been created.

If it has been created, delete the created Tier pool from the device and then recreate a Tier pool using Web Console. To delete the Tier pool, use ETERNUS CLI. For information on how to use ETERNUS CLI, refer to the *ETERNUS CLI User's Guide*.

If it has not been created, refer to "Collect the troubleshooting data" in the *ETERNUS SF Storage Cruiser Operation Guide for Optimization Function* to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2.3.34 The [Status Update] operation of Automated Storage Tiering fails

Problem

The **Status Update** operation of Automated Storage Tiering for the ETERNUS Disk storage system fails with the following message.

```
ERROR:ssmgr3402:Failed to set or obtain the information for the storage device. Error code=10, detail
message=STXS1032 ERROR The specified function parameter format is invalid. [function parameter
name=volume, function parameter value=null]
```

Troubleshooting

With ETERNUS Web GUI, check whether any volume whose type is Temporary exists in the relevant ETERNUS Disk storage system. If any exists, contact the responsible customer engineer (CE). After responding to the volume whose type is Temporary, re-execute the intended operation.

2.3.35 Any operations of Automated Storage Tiering fail

Problem

Any operations of Automated Storage Tiering fail with the following message.

```
Error: Could not create the Java Virtual Machine.
Error: A fatal exception has occurred. Program will exit.
```

Conditions

This problem occurs when all of the following conditions are satisfied.

- Management Server OS is Windows 64bit edition.

- ETERNUS SF Manager Version 16.2 or earlier has been installed in the Management Server.

Troubleshooting

This problem is caused by an acquisition failure of the JavaVM heap area (continuous memory area) due to a Windows security feature "Address Space Layout Randomization" (ASLR).
Perform Automated Storage Tiering operations again after restarting the Management Server OS.

2.3.36 Automated Storage Tiering does not work at the time set in Tiering policy

Problem

If you configure the Tiering policy based on the time of the storage device for which Automated Storage Tiering works, Automated Storage Tiering may not work at the set time.

Troubleshooting

The cause is a time lag between the storage device and the Management Server.
Since Automated Storage Tiering works based on the time of the Management Server, configure the Tiering policy based on the time of the Management Server.

2.3.37 The status of the REC path in which a bandwidth limit being performed is Error

Problem

In the REC path settings, when values smaller than the actual bandwidth are set for the bandwidth limit, the REC path status may be "Error".

Troubleshooting

When values smaller than the actual bandwidth are set for the bandwidth limit, the REC path status is "Error". The values that can be specified for the bandwidth limit depend on the system environment and data communication volume of the remote copy.
Review the following points when the REC path status is "Error".

- Changing the REC path connection type (*1)

- Bandwidth limit value

- Changing the REC copy method (*1)

*1: For change methods, refer to the hardware manual *ETERNUS Web GUI User Guide* (configuration version).

2.3.38 Capturing the NAS volume snapshot fails

Problem

The following events may be notified when capturing the NAS volume snapshot fails.

```
E 40060001 Snapshot execution was failed. NAS Volume=xxx SDV=xxx
```

Troubleshooting

Check the following points:

- SDP Free Space

 Check whether there is insufficient SDP free space. Refer to "Prior Configuration of Operation Management Server" in the *ETERNUS SF Storage Cruiser Operation Guide* for the required SDP capacity.

- Copy Table Size

 Review the copy table size of the disk storage system. The values that can be set for the copy table size differ according to the device model. Refer to the ETERNUS Disk storage system manuals for information on the specification of the copy table size.
 The procedure for changing the copy table size is explained according to the presence of the AdvancedCopy Manager license.

 - When the AdvancedCopy Manager license is purchased

  Configure the copy table size using Web Console. Refer to "Configure Copy Table Size for Advanced Copy" in the *ETERNUS SF Web Console Guide* for the configuration procedure of the copy table size.

 - When the AdvancedCopy Manager license is not purchased

  Configure the copy table size using ETERNUS Web GUI.

- Other than those above

 Check the other events to see whether failures occurred in the disk storage system.

2.3.39 Device registration of the server installed with the Storage Cruiser's agent fails with the esccs02015 message

Problem

In a multipath driver (MPxIO) environment, the device registration of a server in which Storage Cruiser's agent is installed fails with the esccs02015 message.

Troubleshooting

Storage Cruiser does not support a system configuration in which a logical path is defined for multiple CA ports on the storage device side from one HBA port on the server side. Make sure the system configuration does not match this. If the system configuration does match, after configuring zoning/host affinity so that the system is configured with a logical path defined for one CA port on the storage device side from one HBA port on the server side, perform a device registration of the server that is installed with Storage Cruiser's agent.

2.3.40 Thin Provisioning Volume creation fails with the ssmgr3428 message

Problem

The process of creating a Thin Provisioning Volume fails with the ssmgr3428 message output.

Troubleshooting

The RAID group that constitutes a Thin Provisioning Pool is in the fault state. Follow the steps below to take corrective action:

1. With Web Console, check the status of the Thin Provisioning Pool and the status of the RAID group that constitutes a Thin Provisioning Pool to identify the RAID group that is in the fault state.

2. Refer to the *Web GUI Online Help* for information on the hardware to recover the RAID group.

3. Recreate the Thin Provisioning Volume.

> 📖 **Information**
> ....
> If the ssmgr3428 message is output when you create a Thin Provisioning Volume, no RAID group number is displayed in the message.
> ....

2.3.41 VM guests are not recognized from VMware vCenter Server if a model upgrade of the ETERNUS Disk storage system has been performed

Problem

If a model upgrade of the ETERNUS Disk storage system has been performed, VM guests are not recognized from VMware vCenter Server.

Troubleshooting

For systems using the VMware vSphere Virtual Volumes function, if a model upgrade from the ETERNUS DX200 S3 to the ETERNUS DX500 S3 has been performed, the model upgrade procedure might not have been properly performed. Perform steps 13 and 14 in the following section of the *ETERNUS SF Web Console Guide*:

- "Operation on Model Upgrade for ETERNUS Disk Storage System" > "Operation on Model Upgrade for ETERNUS DX200 S3 to DX500 S3" > "When the VMware vSphere Virtual Volumes function is used"

2.3.42 Rescanning Storage Provider fails in VMware vCenter Server if a model upgrade of the ETERNUS Disk storage system has been performed

Problem

If a model upgrade of the ETERNUS Disk storage system has been performed, rescanning Storage Provider fails in VMware vCenter Server.

Troubleshooting

For systems using the VMware vSphere Virtual Volumes function, if a model upgrade from the ETERNUS DX200 S3 to the ETERNUS DX500 S3 has been performed, the model upgrade procedure might not have been properly performed. Perform the following steps for corrective action:

1. Reinstall ETERNUS VASA Provider.

2. Reboot the server that has VMware vCenter Server installed.

3. Delete ETERNUS VASA Provider from VMware vCenter Server.

4. Register ETERNUS VASA Provider in VMware vCenter Server.

2.3.43 Evaluation and relocation with Automated Storage Tiering are executed at a time different from the set time

Problem

An evaluation and relocation with Automated Storage Tiering are executed at a time different from the time set in the Tiering policy.

Troubleshooting

If you are using a newly introduced time zone, the version of Java that is included with the ETERNUS SF Manager program may not support the specified time zone. Refer to "Procedure for checking the necessary updates for the Java

time zone data" and check the necessary updates for the time zone. If a time zone update is required, perform the steps in "Procedure for updating the Java time zone data".

The task of updating the time zone requires user privileges of the Administrators group in a Windows environment and OS administrative (root) privileges in a Solaris/Linux environment.

Procedure for checking the necessary updates for the Java time zone data

1. Download update tool.

   a. Download the Java time zone data update tool.

      Access the following site and download the Java Time Zone Updater Tool.

      ```
      http://www.oracle.com/technetwork/java/javase/downloads/index.html
      ```

   b. Check the Java time zone data update tool.

      Unzip the downloaded file and confirm that the "tzupdater.jar" file exists.

2. Confirm the version of the Java time zone data that is included in the ETERNUS SF Manager program.

   With the command prompt, after moving to the location of the "tzupdater.jar" file, execute the following command.

   - For the Java time zone data in Storage Cruiser

      If AdvancedCopy Manager CCM is a standalone installation, this command execution is not required.

      [For Windows]

      ```
      > $INS_DIR\Common\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
      ```

      ($INS_DIR means "Program Directory" specified at the ETERNUS SF Manager installation.)

      [For Solaris or Linux]

      ```
      # /opt/FJSVesfcm/JRE/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
      ```

   - For the Java time zone data in AdvancedCopy Manager CCM

      [For Windows]

      ```
      > $INS_DIR\CCM\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
      ```

      ($INS_DIR means "Program Directory" specified at the AdvancedCopy Manager CCM installation.)

      [For Solaris or Linux]

      ```
      # /opt/FJSVccm/jre/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
      ```

3. Confirm the time zones that are supported by this product.

   a. Based on the information released by Oracle Corporation, check whether the version of the Java time zone data in step 2 supports the target time zone.

      Refer to the following URL for the information released by Oracle Corporation:

      ```
      http://www.oracle.com/technetwork/java/javase/tzdata-versions-138805.html
      ```

   b. Take the following action according to the result of step 3-a.

      - When a target time zone is not supported

         Updating the Java time zone data may solve the problem. Refer to "Procedure for updating the Java time zone data".

- When a target time zone is supported

Referring to "Procedure for updating the Java time zone data" is not required. Refer to "Collecting Troubleshooting Information" in the *ETERNUS SF Storage Cruiser Operation Guide* to collect troubleshooting information and then contact Fujitsu Technical Support.

Procedure for updating the Java time zone data

1. Stop services.

   - For non-clustered systems

     a. Stop the ETERNUS SF Manager services.

        If AdvancedCopy Manager CCM is a standalone installation, this step is not required.

        [For Windows]
        Open Service Control Manager and stop the following services:
        - ETERNUS SF Manager Tomcat Service
        - ETERNUS SF Manager Apache Service
        - ETERNUS SF Storage Cruiser Optimization Option
        - AdvancedCopy Manager COM Service

        [For Solaris or Linux]
        Execute the "/opt/FJSVesfcm/bin/stopesf.sh" to stop the services.

     b. Stop the management service of AdvancedCopy Manager CCM.

        If AdvancedCopy Manager CCM is not used, this step is not required.

        Execute the "acservice stop -lan" command to stop the service.

        [Note] Do not execute the above command before stopping the process of AdvancedCopy Manager CCM.

   - For clustered systems

     a. Stop the ETERNUS SF Manager services.

        If AdvancedCopy Manager CCM is a standalone installation, this step is not required.

        Stop the Management Server services.

     b. Stop the management service of AdvancedCopy Manager CCM.

        If AdvancedCopy Manager CCM is not used, this step is not required.

        Stop the CCM Server service. Refer to the *ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module* for information on how to stop the service.

2. Update the Java time zone data in Storage Cruiser.

   If AdvancedCopy Manager CCM is a standalone installation, this step is not required.

   For clustered systems, perform the data update on both the primary node and the secondary node.

   In the command prompt, after moving to the location of the "tzupdater.jar" file, execute the following command.

   - For Windows

     a. Check the current version of the Java time zone data.

        ```
        > $INS_DIR\Common\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
        ```

     b. Update the Java time zone data.

        ```
        > $INS_DIR\Common\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -u
        ```

c. Confirm that the Java time zone data has been updated.

```
> $INS_DIR\Common\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
```

($INS_DIR means "Program Directory" specified at the ETERNUS SF Manager installation.)

- For Solaris or Linux

a. Check the current version of the Java time zone data.

```
# /opt/FJSVesfcm/JRE/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
```

b. Update the Java time zone data.

```
# /opt/FJSVesfcm/JRE/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -u
```

c. Confirm that the Java time zone data has been updated.

```
# /opt/FJSVesfcm/JRE/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
```

3. Update the Java time zone data in AdvancedCopy Manager CCM.

For clustered systems, perform the data update on both the primary node and the secondary node.

In the command prompt, after moving to the location of the "tzupdater.jar" file, execute the following command.

- For Windows

a. Check the current version of the Java time zone data.

```
> $INS_DIR\CCM\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
```

b. Update the Java time zone data.

```
> $INS_DIR\CCM\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -u
```

c. Confirm that the Java time zone data has been updated.

```
> $INS_DIR\CCM\jre\bin\java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
```

($INS_DIR means "Program Directory" specified at the AdvancedCopy Manager CCM installation.)

- For Solaris or Linux

a. Check the current version of the Java time zone data.

```
# /opt/FJSVccm/jre/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
```

b. Update the Java time zone data.

```
# /opt/FJSVccm/jre/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -u
```

c. Confirm that the Java time zone data has been updated.

```
# /opt/FJSVccm/jre/bin/java -Djava.vendor="Sun Microsystems Inc." -jar tzupdater.jar -V
```

4. Start services.

- For non-clustered systems

Start the ETERNUS SF Manager services.
If AdvancedCopy Manager CCM is a standalone installation, this step is not required.

- For Windows

Open Service Control Manager and start the following services:
- ETERNUS SF Manager Tomcat Service
- ETERNUS SF Manager Apache Service

- ETERNUS SF Storage Cruiser Optimization Option
- AdvancedCopy Manager COM Service

- For Solaris or Linux

Execute the "/opt/FJSVesfcm/bin/startesf.sh" to start the services.

- For clustered systems

a. Start the ETERNUS SF Manager services.

If AdvancedCopy Manager CCM is a standalone installation, this step is not required.

Start the Management Server services.

b. Start the management service of AdvancedCopy Manager CCM.

If AdvancedCopy Manager CCM is not used, this step is not required.

Start the CCM Server service. Refer to the *ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module* for information on how to start the service.

2.3.44   Failback of clustered systems fail in a Windows environment

Problem

In a Windows cluster environment, when a failover is executed from the active site to the standby site, the subsequent failback from the standby site to the active site may fail.

Troubleshooting

This failure is caused by forcibly stopping the processes of generic services in a clustered system.
After performing the following steps in the Management Server on the active site, re-execute failback from the standby site to the active site.

1. Execute the "netstat -ano" command and identify the process ID that is using TCP port 24917.

   Find the row that includes ":24917" in the **Local Address** column from the command execution result. The value displayed in the **PID** column of that row is the process ID.

   ### 🅿 Point
   ....
   TCP port 24917 is the default value used for the internal communication port of Automated Storage Tiering. If you change the port number, identify the process ID that uses the changed port number.
   ....

   If none of the rows include ":24917" in the **Local Address** column of the command execution result, step 2 onwards are not required. Refer to "Collecting Troubleshooting Information" in the *ETERNUS SF Storage Cruiser Operation Guide* to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2. With Windows Task Manager, stop the process (java.exe) with the process ID that was identified in step 1.

3. If the process of ETERNUS SF Manager Postgres Service (postgres.exe) is displayed in Windows Task Manager, stop the process.

   ### 🅿 Point
   ....
   If two or more postgres.exe processes exist, stop all the postgres.exe processes.
   ....

📖 Information
....
When a failover is performed for a clustered system from the active site to the standby site for the following triggers, perform the above steps on the Management Server on the active site to avoid this trouble:

- Triggers that forcibly stop generic service processes

    - When an offline resource operation is performed.

    - When a deadlocked resource DLL is found.

    - When the cluster services are forcibly stopped.
      (Node-to-node communication is lost due to unexpected stoppage or a disabled NIC.)

2.3.45 Event messages of ETERNUS Multipath Driver are not displayed in a Solaris environment

Problem

For a version of ETERNUS SF Storage Cruiser within the range of 16.0 to 16.4 (for Solaris), event messages of ETERNUS Multipath Driver are not displayed.

Troubleshooting

Refer to "SNMP Trap XML Definition File" in the *ETERNUS SF Storage Cruiser Operation Guide* and add the required definition to the target SNMP Trap XML definition file.

- SNMP Trap XML definition file name

    - Management Server (Storage Cruiser's manager side): 1_3_6_1_4_1_211_4_1_3_21_2_21.xml

    - Managed Server (Storage Cruiser's agent side): 1_3_6_1_4_1_211_4_1_3_21_2_21.xml

- Definitions to be added

```
<TrapType type="ST14" flag="001111" cf="1000" level="W" msg="%s (%s)">
  <ARG index="0" VBIndex="2" />
  <ARG index="1" VBIndex="6" />
  <MSG line="2" key=".*NOTICE: mplb.*I/O path failed\..*" />
  <VAL index="2" ref="[^/]*(/pci.*)$" />
</TrapType>
<TrapType type="ST15" flag="001111" cf="1000" level="W" msg="%s">
  <ARG index="0" VBIndex="2" />
  <MSG key=".*WARNING: mplb.*I/O Lun degraded, no more.*" />
</TrapType>
<TrapType type="ST16" flag="001111" cf="1000" level="W" msg="%s (%s)">
  <ARG index="0" VBIndex="2" />
  <ARG index="1" VBIndex="6" />
  <MSG line="2" key=".*NOTICE: mplb.*I/O Lun degraded\..*" />
  <VAL index="2" ref="[^/]*(/pci.*)$" />
</TrapType>
```

2.3.46 Event linkage to the 32-bit version of Systemwalker Centric Manager fails in Windows environments

Problem

If all of the following conditions are satisfied, the event linkage from this software to the 32-bit version of Systemwalker Centric Manager fails.

- The operating system of the Management Server is Windows.

- The version of Storage Cruiser's manager, which is within the range of 16.3 to 16.6, is installed on the Management Server.

- An event linkage is performed to the 32-bit version of Systemwalker Centric Manager-M EE/SE installed on the Management Server.

Troubleshooting

- If the version of Storage Cruiser's manager is 16.6

  Apply the patch T014272XP-01 or later.

- If the version of Storage Cruiser's manager is between 16.3 and 16.5

  You can take corrective action by creating a registry path. Perform the following procedure to create a registry path.

  1. Open the registry editor by clicking **Start** > **Run** and then execute "regedit".

  2. Move to the following registry path.

     ```
     [HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Fujitsu\MpWalker\CurrentVersion]
     ```

  3. Right-click **DM PathName** and select **Modify**.

  4. Take note of the paths shown in the "Value data" box when the pop-up appears.

  5. Click **Cancel** to close the pop-up.

  6. Move to the following registry path.

     ```
     [HKEY_LOCAL_MACHINE\SOFTWARE\Fujitsu\MpWalker\CurrentVersion]
     ```

  7. By selecting **Edit** > **New** > **String Value**, an input box appears on the right side. Enter "DM PathName" in the box.

  8. Right-click **DM PathName** that you created in step 7 and select **Modify**.

  9. Enter the paths that were noted in step 4 in the "Value data" box when the pop-up appears.

  10. Click **OK** to close the pop-up and exit the registry editor.

  11. Restart the Storage Cruiser's manager.

  ℙ Point
  ....
  The registry path that is created by the above procedure will not be deleted automatically during an uninstallation or a version upgrade of the Storage Cruiser's manager, or during an uninstallation or a version upgrade of Systemwalker Centric Manager. After an uninstallation or a version upgrade, delete "DM PathName" manually if the registry path that you created is no longer needed.
  ....

2.3.47   Postgres error messages are output to syslog in Linux environments

Problem

If the Management Server is Linux, the following error message is regularly output to the system log.

```
ERROR: null value in column "tier_pool_name" violates not-null constraint
```

Troubleshooting

This event occurs when the Linux Hugepages function is enabled in the Management Server. Take either of the following actions:

- For ETERNUS SF Manager and software that uses the Hugepages function, install them on different servers to separate the operating environment.

- Check the Hugepages memory usage and then add the amount of memory used by ETERNUS SF Manager to the settings of the Hugepages function.

  If the Management Server has the Hugepages function enabled, ETERNUS SF Manager uses the Hugepages memory. Because the Hugepages memory is allocated from the physical memory, the physical memory may

become insufficient due to the amount of added memory used by ETERNUS SF Manager, so add more physical memory.

For the amount of memory used by ETERNUS SF Manager, refer to "Operating Environment of ETERNUS SF Manager" in the *ETERNUS SF Installation and Setup Guide*. For information on how to check the Hugepages memory usage and how to add memory, refer to the OS manual.

2.3.48 If a manual failover/failback is performed in a Storage Cluster environment, it fails with the ssmgr3967 message

Problem

In a Storage Cluster environment with version 16.8, manual failover/failback fails with the ssmgr3967 message for TFO groups whose phase is "Maintenance".

Troubleshooting

Check the model and firmware version of the storage devices that configure Storage Cluster.

- When the firmware version of the ETERNUS DX S5 series, ETERNUS DX8900 S4, or ETERNUS AF S3 series is V11L40-5000/V11L41-5000 or later

   When the phase of the TFO group is "Maintenance", manual failover/failback cannot be performed. Refer to the status of the TFO group and the session information of the TFO pair, and after restoring the phase of the TFO group to "Normal", perform the operation again.

   If a failover/failback must be performed manually while the phase of the TFO group is "Maintenance", make sure to contact your maintenance engineer.

- For storage devices other than the above

   Refer to "System Administrator Corrective Action" for the ssmgr3967 message in the *ETERNUS SF Messages* and take corrective action.

Note

Performing a manual failover/failback is not recommended when the phase of the TFO group or the session state of the TFO pair is not normal because it can cause inconsistent data. The recommended action is to check the status of the TFO group and the session information of the TFO pair, and after restoring the phase of the TFO group to "Normal", try again.

See

For details of the TFO group status and the TFO pair session information, refer to "Confirming the Status on the Storage Cluster Overview Screen" and "Confirming the Status on the TFO Group Details Screen" in the *ETERNUS SF Storage Cruiser V16.8 Operation Guide*.

2.3.49 Event linkage E-mail notification fails in RHEL8

Problem

In a RHEL8 environment installed with ETERNUS SF Storage Cruiser V16.8, E-mails that are sent by the following functions fail.

- E-mail notifications by the event linkage

- Test E-mails being sent by Web Console

Troubleshooting

This problem can be avoided by performing the following procedure.

🅿 Point
....

- To execute the commands, OS administrative (root) privileges are required.

- For cluster environments, perform this operation on both the Primary node and Secondary node.
....

1. Access the following URL on a PC that is connected to the Internet and download the "javax.activation-1.2.0.jar" file.

   ```
   https://search.maven.org/artifact/com.sun.activation/javax.activation/1.2.0/jar
   ```

   Perform the subsequent steps in the Management Server.

2. Stop the daemon of ETERNUS SF Manager.

   For non-cluster environments, execute the following shell script.

   ```
   # /opt/FJSVesfcm/bin/stopesf.sh
   ```

   For cluster environments, either stop the Management Server transactions or switch to the standby node.

3. Place the "javax.activation-1.2.0.jar" file obtained in Step 1 in the "/opt/FJSVssmgr/java/archive/vijava" directory.

4. Execute the following commands to change the owner and permissions of the "javax.activation-1.2.0.jar" file placed in Step 3.

   ```
   # chown root:root /opt/FJSVssmgr/java/archive/vijava/javax.activation-1.2.0.jar
   # chmod 644 /opt/FJSVssmgr/java/archive/vijava/javax.activation-1.2.0.jar
   ```

5. Create the backup directory.

   ```
   # mkdir -p $BAK_DIR/opt_FJSVssmgr_java_archive_vijava
   ```

   "$BAK_DIR" signifies the backup destination directory.

6. Execute the following command to back up the "javax.activation-api-1.2.0.jar" file in the "/opt/FJSVssmgr/java/archive/vijava" directory to the backup directory created in Step 5.

   ```
   # mv /opt/FJSVssmgr/java/archive/vijava/javax.activation-api-1.2.0.jar $BAK_DIR/
   opt_FJSVssmgr_java_archive_vijava/
   ```

7. Execute the following commands to create a symbolic link to the "javax.activation-1.2.0.jar" file.

   ```
   # cd /opt/FJSVssmgr/java/archive/vijava
   # ln -s javax.activation-1.2.0.jar javax.activation-api-1.2.0.jar
   ```

8. Execute the following command to change the owner of the symbolic link created in Step 7.

   ```
   # chown -h root:root /opt/FJSVssmgr/java/archive/vijava/javax.activation-api-1.2.0.jar
   ```

9. Start the daemon of ETERNUS SF Manager.

   For non-cluster environments, execute the following shell script.

   ```
   # /opt/FJSVesfcm/bin/startesf.sh
   ```

   For cluster environments, either start the Management Server transactions or switch to the active node.

Procedure for returning to the environment before the workaround procedure is implemented or for upgrading to the next version or later

Perform the following procedure in the Management Server.

1. Stop the daemon of ETERNUS SF Manager.

   For details on how to stop the daemon, refer to Step 2 of "Troubleshooting".

2. Execute the following command to delete the symbolic link created in Step 7 of "Troubleshooting".

   ```
   # unlink /opt/FJSVssmgr/java/archive/vijava/javax.activation-api-1.2.0.jar
   ```

3. Execute the following command to restore the "javax.activation-api-1.2.0.jar" file backed up in Step 6 of "Troubleshooting" to the "/opt/FJSVssmgr/java/archive/vijava" directory.

   ```
   # mv $BAK_DIR/opt_FJSVssmgr_java_archive_vijava/javax.activation-api-1.2.0.jar /opt/FJSVssmgr/
   java/archive/vijava/
   ```

   "$BAK_DIR" signifies the backup destination directory.

4. Execute the following command to delete the "javax.activation-1.2.0.jar" file placed in Step 3 of "Troubleshooting".

   ```
   # rm /opt/FJSVssmgr/java/archive/vijava/javax.activation-1.2.0.jar
   ```

5. Start the daemon of ETERNUS SF Manager.

   For details on how to start the daemon, refer to Step 9 of "Troubleshooting".

2.3.50 The jar file defined in the environment variable CLASSPATH cannot be updated

Problem

On a server that satisfies one of the following conditions, if the environment variable CLASSPATH is set and the service/daemon of Storage Cruiser references the environment variable CLASSPATH, the jar file that is defined in the environment variable CLASSPATH or the jar file under the directory defined in the environment variable CLASSPATH may not be updatable.

- The OS is Windows, and the service of Storage Cruiser's manager is running

- The OS is Linux or Solaris, and the daemon of Storage Cruiser's agent is running

Troubleshooting

Perform the following procedure in the server where this problem occurred.

1. Stop the running service/daemon of Storage Cruiser's manager or Storage Cruiser's agent.

2. Re-execute the operation that resulted in an error.

3. Restart the service/daemon stopped in Step 1.

2.4   ETERNUS SF AdvancedCopy Manager

2.4.1   Loading the device information fails

Problem

A Symfoware backup was attempted using Symfoware Server Advanced Backup Controller, however loading the device information on the Managed Server failed.

Troubleshooting

Start the target Symfoware database and then reload the device information on the Managed Server.

2.4.2 OS cannot identify the copy destination volume (-Xgroup Option copy)

Problem

The destination volume specified by the -Xgroup option in the "swsrpmake" command cannot be recognized in Solaris OS.

Troubleshooting

If a copy is created using the -Xgroup option, because the integrity of the copy source volume/copy destination volume cannot be maintained within the group, it may not be recognized by the OS.
Verify the integrity of the copy source volume/copy destination volume within the group before creating a copy.

2.4.3 Backup fails with the swst0604 or swsrp2604 message

Problem

The backup fails with the "swst0604/swsrp2604 The specified volume is currently in use. Volume Name=*xxxxx*" message.

Troubleshooting

Perform either of the following:

- While a copy command is being performed, if the copy process was interrupted due to a forced termination or a system down

  Execute the "swstsrsemtch" command on the server where the error appeared.
  In case of replication between servers, execute the command on both servers.

- If other than the above

  Check if the volume is being operated by another command or Web Console. If a process is being executed, wait until the process ends and then re-execute the command.

2.4.4 The copy status of the swsrpstat command is displayed as "?????" in the "Status" column

Problem

Other than for hardware errors, the copy status of the "swsrpstat" command is displayed as "?????" in the **Status** column.

Troubleshooting

Check whether the backup software (such as ARCserve) is performing a backup on this volume. If a process is running, wait until it is finished and then re-execute the command.

2.4.5 When OPC is executed, ARCserve backup fails

Problem

If OPC is executed while ARCserve is performing a backup, the backup process of volume shadow service will be suspended, ARCserve backup will fail, and a message will appear in the Event log.

Example

- Output example1

```
The mount for [Folder Name: A] for this shadow copy's shadow copy memory area has been force
removed, therefore the shadow copy for [Folder Name: B] was suspended.
```

- Output example2

```
The mount for [Volume: Z] for this shadow copy's shadow copy memory area has been force removed,
therefore the [Volume V:] shadow copy was suspended.
```

Troubleshooting

The backup process of volume shadow service is suspended, ARCserve backup fails.
When the backup process for ARCserve is not being performed, execute OPC.

2.4.6 In an environment using Backup Exec System Recovery, the swstdrvunset command fails with the swst1030 message

Problem

In an environment using Backup Exec System Recovery, if the "swstdrvunset" command is executed, the following message is displayed and the drive release fails.

```
swst1030 The drive could not be locked. Drive Letter=XX:, Error=5(FSCTL_LOCK_VOLUME)
```

Troubleshooting

Identify the processes using this drive, and stop the processes.
Refer to "Volume Lock Error Investigation Function" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* for information on how to identify the process.

2.4.7 Changing the Copy Table Size of ETERNUS Disk storage system outputs the "In process error occurred" message

Problem

If the copy table size is reduced using ETERNUS Web GUI, "In process error occurred", "OPC is executing, process suspended", and other messages are output.

Troubleshooting

After removing all currently executing Advanced Copy sessions, change the copy table size.

2.4.8 When REC starts up, if fails with the swsrp0719 message

Problem

For the REC - QuickOPC cascade copy, after the REC session has been removed, REC fails with the following message when starting.

```
swsrp0719 EC cannot be run. Error=26(SCSI command busy.)
```

Figure 2.1 Example: Error for the cascade copy operation that includes REC
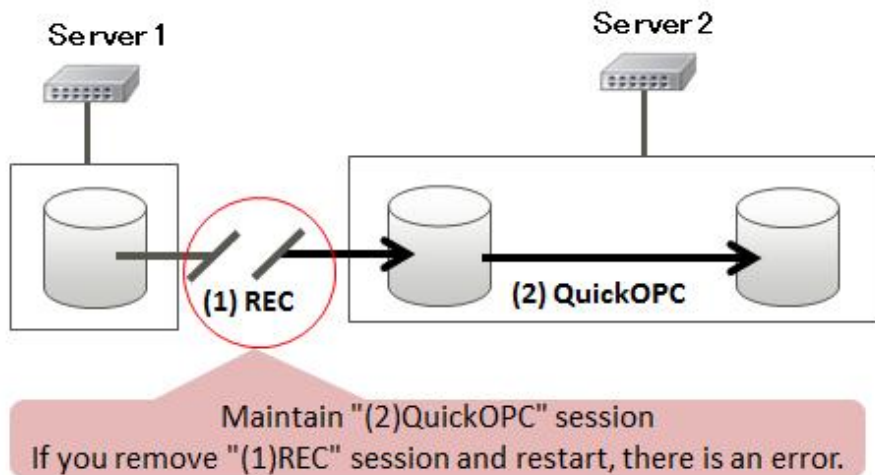
Conditions

A cascade copy is performed with REC - QuickOPC

Troubleshooting

The ETERNUS Disk storage system that is in use does not support the configuration.
If a copy session still remains in the REC copy destination, after removing the copy session, restart REC session.

2.4.9   The swsrpmake command fails with the swsrp0740 message

Problem

If the "swsrpmake" command is executed, the following message is output and process fails.

```
swsrp0740 advanced copy function cannot be used. Error code=59 setup is inadequate
```

Troubleshooting

Review the copy table size of the storage device. If the copy table size is set at the maximum for the storage device, change the multiplying factor.
For details on the copy table size, refer to the manual of the storage device.

2.4.10   Configuration management commands fail with the swstf5412 message

Problem

If the Management Server is Windows Server 2012, regardless of whether the port number and the protocol name of the miswstf service or the semswstf service is properly set, the following configuration management commands fail with the swstf5412 message:
stgxfwcmdispsrv, stgxfwcmaddsrv, stgxfwcmdeldev, stgxfwcmdelsrv,
stgxfwcmdispdev, stgxfwcmdisppat, stgxfwcmmodsrv, stgxfwcmsetdev

Troubleshooting

Make sure that the following operation and commands are not running and then re-execute the failed command. In addition, while the command is running, do not execute the following operation or commands:

- The **Reload Conf.** operation for other servers and storage devices in Web Console

- The following configuration management commands of AdvancedCopy Manager:
  stgxfwcmdispsrv, stgxfwcmaddsrv, stgxfwcmdeldev, stgxfwcmdelsrv,
  stgxfwcmdispdev, stgxfwcmdisppat, stgxfwcmmodsrv, stgxfwcmsetdev

2.4.11 When starting a service, the process fails with "0016 : stgxfws socket error." message

Problem

When starting a service, the process fails with "0016 : stgxfws socket error. iReturn=113, errno=10013." message.

Troubleshooting

The communication port used by AdvancedCopy Manager is in the range of the Windows Ephemeral port (Windows Server 2003,1024-5000).
If a port number that is in the range of the Ephemeral ports is specified, the same port might be used by other software.
For AdvancedCopy Manager, use port number 5001 and above (Windows Server 2003).

2.4.12 Event ID:7023 is output when starting Windows OS

Problem

When the Windows OS is restarted after a shutdown, the following message is output in the event log:

- Event ID: 7023

- Source name: Service Control Manager

- Message: The SymfoWARE RDA RDBSWSTF service terminated with the following error: The media is write protected.

Troubleshooting

Not required. The message can be ignored.
The Symfoware RDA RDBSWSTF services are not used in a Windows Server 2008 R2 environment.
The error does not affect AdvancedCopy Manager.

2.4.13 qdg13315u message is output in Windows event log

Problem

The following message is output in the Windows event log:
The path specified by the 'RDBLOGMANAGE' parameter in the RDB configuration parameter file is incorrect, or an I/O error occurred.

Troubleshooting

Not required. The message can be ignored.
If any external product is in use or the "rdbprt" command is executed for Symfoware that is included with AdvancedCopy Manager, the above message may be output because the RDM system name is not specified in "RDMNAME".
AdvancedCopy Manager is not affected.

2.4.14 In a cluster environment, the swstbackup command fails with the swst0624 message

Problem

In a cluster environment, the "swstbackup" command fails with "swst0624 environment setting not executed" message.

Troubleshooting

While the cluster is operating, after setting the environment variable SWSTGNODE, execute the command.
When you execute the commands listed in "when using cluster" command of "Backup Management Commands" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* is executed, set the logical node name in the environment variable SWSTGNODE.

2.4.15 In a cluster environment, the stgxfwcmmodsrv command fails with the swstf5016 message (for Linux or Solaris)

Problem

On the Management Server or the Managed Server in a cluster environment (for Linux or Solaris), the "stgxfwcmmodsrv" command, which specifies the logical node name of the target server to the -n option, fails with the following message:

```
swstf5016 A communication error occurred during accessing repository of server data.
```

Troubleshooting

To avoid this problem, register the local transaction server information of the Management Server to this product. The local transaction server is a server which uses the local disks (disks which are not in a cluster environment) of the Management Server in a cluster environment. A failover is not executed on the local transaction server.

Perform the following procedure on the primary node of the Management Server:

1. Check whether the local transaction server information is registered to this product.

    Execute the "stgxfwcmdispsrv" command without any options.

    ### Example

    The following shows command execution examples when the physical IP address of the Management Server is "192.0.2.20".

    - When the physical IP address of the Management Server is displayed in the server information

    ```
    # /opt/FJSVswstf/bin/stgxfwcmdispsrv
    Server  Server-Type        Tape OS-Type OS-Version       Version IP-Address Port-Number
    Manager Management-Server --- Linux   3.10.0-1062.el7 V16.8   192.0.2.10 11000
    Srv     Server             --- Linux   3.10.0-1062.el7 V16.8   192.0.2.20  1226
    agent   Server             --- Linux   3.10.0-1062.el7 V16.8   192.0.2.30  1226
    ```

    - When the physical IP address of the Management Server is not displayed in the server information

    ```
    # /opt/FJSVswstf/bin/stgxfwcmdispsrv
    Server  Server-Type        Tape OS-Type OS-Version       Version IP-Address Port-Number
    Manager Management-Server --- Linux   3.10.0-1062.el7 V16.8   192.0.2.10 11000
    agent   Server             --- Linux   3.10.0-1062.el7 V16.8   192.0.2.30  1226
    ```

    If the physical IP address of the Management Server is displayed in the server information, this problem cannot be avoided with this procedure. Refer to "Collecting Troubleshooting Information" in the *AdvancedCopy Manager Operation Guide* to collect the information required for troubleshooting and contact Fujitsu Technical Support.

    Proceed to step 2 if the physical IP address of the Management Server is not displayed in the server information.

2. Temporarily register the local transaction server information to this product.

    a. Execute the "stgfwcom" command by specifying the "start" operand to start the communication daemon for the local transactions.

📘 Example

The following shows a command execution example.

```
# /opt/FJSVswstf/bin/stgfwcom start
stgxfws daemon for AdvancedCopy Manager has been successfully started !!
#
```

b. Execute the "stgxfwcmaddsrv" command by specifying the physical IP address of the Management Server for the -i option to register the local transaction server information to this product.

📘 Example

The following shows a command execution example when the physical IP address of the Management Server is "192.0.2.20".

```
# /opt/FJSVswstf/bin/stgxfwcmaddsrv -i 192.0.2.20 -p 1226
stgxfwcmaddsrv completed
#
```

c. Check that the local transaction server information is registered to this product by executing the "stgxfwcmdispsrv" command.

📘 Example

The following shows a command execution example when the physical IP address of the Management Server is "192.0.2.20".

```
# /opt/FJSVswstf/bin/stgxfwcmdispsrv
Server  Server-Type        Tape OS-Type OS-Version      Version IP-Address Port-Number
Manager Management-Server  --- Linux   3.10.0-1062.el7 V16.8   192.0.2.10 11000
Srv     Server             --- Linux   3.10.0-1062.el7 V16.8   192.0.2.20 1226
agent   Server             --- Linux   3.10.0-1062.el7 V16.8   192.0.2.30 1226
```

3. Re-execute the failed "stgxfwcmmodsrv" command.

📘 Example

The following shows a command execution example when the logical node name of the Management Server is "Manager".

```
# /opt/FJSVswstf/bin/stgxfwcmmodsrv -n Manager
stgxfwcmmodsrv completed
#
```

Proceed to step 4 regardless of the completion status of the command.
If the command terminates abnormally, perform step 4 and then refer to "Collecting Troubleshooting Information" in the *AdvancedCopy Manager Operation Guide* to collect the information required for troubleshooting and contact Fujitsu Technical Support.

4. Delete the local transaction server information, which was registered in step 2, from this product.

a. Delete the local transaction server information, which was registered in step 2, by executing the "stgxfwcmdelsrv" command.

Example

The following shows a command execution example when the name of the local transaction server registered in step 2 is "Srv".

```
# /opt/FJSVswstf/bin/stgxfwcmdelsrv -n Srv
stgxfwcmdelsrv completed
#
```

b. Check that the local transaction server information is deleted from this product by executing the "stgxfwcmdispsrv" command.

Example

The following shows a command execution example when the name of the local transaction server registered in step 2 is "Srv".

```
# /opt/FJSVswstf/bin/stgxfwcmdispsrv
Server   Server-Type        Tape OS-Type OS-Version       Version IP-Address Port-Number
Manager  Management-Server  --- Linux   3.10.0-1062.el7 V16.8   192.0.2.10 11000
agent    Server             --- Linux   3.10.0-1062.el7 V16.8   192.0.2.30 1226
```

c. Execute the "stgfwcom" command by specifying the "stop" operand to stop the communication daemon for the local transactions.

Example

The following shows a command execution example.

```
# /opt/FJSVswstf/bin/stgfwcom stop
stgxfws daemon for AdvancedCopy Manager has been successfully stopped !!
#
```

2.4.16 AdvancedCopy Manager Symfoware log can be monitored in a cluster environment

Problem

If the Symfoware log file that AdvancedCopy Manager uses as an internal database is monitored by Symforware Server Message Monitoring Tool in the Management Server of a clustered environment, after the cluster is switched over, the log file of the pre-switchover Management Server can be monitored.
The Symfoware log file is placed in a shared disk and the same log file is used with all the nodes that configure the clustered system.

Troubleshooting

Symfoware log monitoring is not necessary when AdvancedCopy Manager uses it as an internal database. Remove it from the group of the monitored servers.

2.4.17 Managed Server information cannot be deleted by Web Console or the stgxfwcmdelsrv command

Problem

The following error occurs when Web Console or the "stgxfwcmdelsrv" command cannot delete the information of the Managed Server.

- For backup operations

```
swst0706 A Transaction or Backup Volume is defined for the Server. Server Name=serverName
```

- For replication operations

```
swsrp2706 The specified server has an original or replica volume. Server Name=serverName
```

Conditions

For any of the following:

- The server is the Managed Server of AdvancedCopy Manager, the server OS cannot start due to hardware trouble and is not used for operations after hardware trouble is recovered.

- The deletion procedure for the Managed Server of AdvancedCopy Manager was not performed and the server is removed.

- The deletion procedure for the Managed Server of AdvancedCopy Manager was not performed and the OS is reinstalled in the Managed Server.

Troubleshooting

Refer to "Action When Managed Server Information Cannot Be Deleted" in the *ETERNUS SF AdvancedCopy Manager Operation Guide*.

2.4.18 The command of AdvancedCopy Manager Copy Control Module fails with the STXC2069 message

Problem

The command of AdvancedCopy Manager Copy Control Module fails with the following message.

```
STXC2069 ERROR a copy table is not set.
```

Troubleshooting

Set the copy table using ETERNUS Web GUI and re-execute the command.

2.4.19 The command of AdvancedCopy Manager Copy Control Module fails with the STXC1002 message

Problem

When executing the Copy Control Module command in the following environment, it fails with the error "STXC1002 ERROR Invalid logical volume name. Volume name=(*volumeName*)."

- The operating system environment is Solaris 11 11/11 or later.

- The ETERNUS Disk storage system that is specified for the command is operating under the following conditions:

  - It is operating with the Copy command via SAN.

  - The access volume is connected to a 16G or 32G Emulex HBA.

Troubleshooting

Refer to the STXC1002 message in the *ETERNUS SF Messages* and check if the conditions for the STXC1002 error are satisfied.

- If the conditions are satisfied

    Take corrective action by following the steps in "System Administrator Corrective Action" of the STXC1002 message.

- If the conditions are not satisfied

    One of the following error messages may have been generated. Messages that may be generated vary depending on the operation target status and operation content.

Conditions		Messages That May Be Generated
The status of the ETERNUS Disk storage system or the status of the connection to the ETERNUS Disk storage system is not normal		STXC1004, STXC1028, STXC1108, STXC1109, STXC1204, STXC1209, STXC1212, STXC1220, STXC1222, STXC1223, STXC1224, STXC1250, STXC3012
The Storage Cluster function is used and the Storage Cluster status is not normal		STXC3013, STXC3016
While the copy session status in the operation target is not normal	Concurrent OPC is attempted to be started	STXC1025, STXC1026, STXC1029, STXC1032, STXC1033, STXC3000, STXC3003
	A restore is attempted to be executed	STXC1031
	A copy operation is attempted to be executed	STXC1003, STXC1005, STXC1006, STXC1007, STXC1104, STXC3001, STXC3004, STXC3008, STXC3015
An unavailable copy pair or volume is specified		STXC1102, STXC3010, STXC3014, STXC3017, STXC3018

    Refer to the table above and check the *ETERNUS SF Messages* for the error message that matches the condition when the command is executed.

    If an error message is found, take corrective action by following the steps in "System Administrator Corrective Action" of that message.
    However, the problem may already be solved if the error was due to temporary problems such as those related to communication or the copy session state. In this case, confirm that the execution of the command does not cause any problems and then re-execute the command.

If you still have a problem, refer to "Collecting Troubleshooting Information" in the *ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module* to collect the information required for troubleshooting and contact Fujitsu Technical Support.

2.4.20 The command of AdvancedCopy Manager Copy Control Module fails with the STXC1002 or STXC1905 message

Problem

When you add copy pairs in REC operations, if the copy source logical volume is a volume in the ETERNUS Disk storage system that is specified for the -remote option of the "acgroup create" command, the command of AdvancedCopy Manager Copy Control Module fails with the following message.

- When operating with the Copy Command via SAN

```
STXC1002 ERROR Invalid logical volume name. Volume name=(volumeName).
```

- When operating with the Copy Command via LAN

```
STXC1905 ERROR Unable to connect to the ETERNUS Disk storage system. [disk array=boxID]
```

Troubleshooting

Perform the following procedure:

1. Execute the "acgroup detail" command and check that the ETERNUS Disk storage system displayed in the **Disk Array Name** field is started.

2. After checking, for all the copy pairs in a copy group, re-register the pairs (delete and add pairs) so that the copy source logical volumes can become ETERNUS Disk storage system volumes specified with the -a option of the "acgroup create" command.

3. Re-execute the command.

2.4.21 The command of AdvancedCopy Manager Copy Control Module fails with the STXC1903 message

Problem

The command of AdvancedCopy Manager Copy Control Module fails with the following message.

```
STXC1903 ERROR The LAN interface management service is not running.
```

Troubleshooting

After the server boots up, if an error occurs when the Copy Control Module command is executed for the first time, the port number used for Copy Control Module (32002 by default) and the port number used for other products may conflict. If so, change either the port number used for Copy Control Module or the port number used for other product to clear the port number conflict.

For cases other than the above, refer to "Collecting Troubleshooting Information" in the *ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module* to collect the information required for troubleshooting and contact Fujitsu Technical Support.

The procedure to change the port number of Copy Control Module is as follows:

- For non-clustered systems

    1. Stop services.

        a. If ETERNUS SF Manager is installed, stop the services of ETERNUS SF Manager.

            [For Windows]
            Stop the following service:
            "ETERNUS SF Manager Tomcat Service"

            [For Solaris or Linux]
            Execute the following shell script:
            /opt/FJSVesfcm/bin/stopesf.sh

        b. Execute the following commands to stop the management service of Copy Control Module:

            [For Windows]
            $INS_DIR\CCM\bin\acservice stop -lan
            ($INS_DIR: Program directory at installation)

            [For Solaris or Linux]
            /opt/FJSVccm/bin/acservice stop -lan

    2. Change the content of the following definition file.

        - File name

            [For Windows]
            $ENV_DIR\CCM\etc\stxc.ini
            ($ENV_DIR: Configuration directory at installation)

            [For Solaris or Linux]
            /etc/opt/FJSVccm/accc/etc/stxc.ini

- Line to be changed

Specify a port number for ssh_port_number.

📘 **Example**

· ·

When changing a port number to 35000:
ssh_port_number=35000

· ·

3. Start services.
   If ETERNUS SF Manager is installed, start the services of ETERNUS SF Manager.

   [For Windows]
   Start the following service:
   "ETERNUS SF Manager Tomcat Service"

   [For Solaris or Linux]
   Execute the following shell script;
   /opt/FJSVesfcm/bin/startesf.sh

- For clustered systems

  1. Stop services.

     - If ETERNUS SF Manager is installed:,
       Stop the Management Server service.

     - If AdvancedCopy Manager CCM is installed:
       Stop the CCM server service. For information on how to stop it, refer to the *ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module*.

  2. Change the content of the following definition file.

     - File name

       [For Windows]
       $SHARE_DL:$SHARE_TOP\etc\stxc.ini
       ($SHARE_DL: Drive letter of shared disk for shared data)
       ($SHARE_TOP: Storage directory of shared disk for shared data)

       [For Solaris or Linux]
       $SHARE_MNT/etc/opt/FJSVccm/accc/etc/stxc.ini
       ($SHARE_MNT: Mount point of shared disk for shared data)

     - Line to be changed

       Specify a port number for ssh_port_number.

       📘 **Example**

       ·

       When changing a port number to 35000:
       ssh_port_number=35000

       ·

  3. Start services.

     - If ETERNUS SF Manager is installed:
       Start the Management Server service.

     - If AdvancedCopy Manager CCM is installed;
       Start the CCM server service. For information on how to start it, refer to the *ETERNUS SF AdvancedCopy Manager Operation Guide for Copy Control Module*.

2.4.22 The command of AdvancedCopy Manager Copy Control Module fails with the ccm5004 message

Problem

In REC operations, the command of AdvancedCopy Manager Copy Control Module fails with the following message.

```
ccm5004 Operation failed. function=STXCopyEC.RESUME, message=out of sequence.
```

Troubleshooting

When REC is in suspended state, execute the Copy Control Module command.

2.4.23 "?????" is output to the Advanced Copy status when the command of AdvancedCopy Manager Copy Control Module is executed

Problem

When the command of AdvancedCopy Manager Copy Control Module is executed, the Advanced Copy status is displayed as "?????".

Troubleshooting

Perform the following procedure:

1. Perform the actions described in "Resolving for displaying "???" in Advanced Copy status" in the *ETERNUS SF Operation Guide for Copy Control Module*.

2. If you cannot solve the problem in step 1, for all the copy pairs in a copy group, re-register the pairs (delete and add pairs) so that the copy source logical volumes can become ETERNUS Disk storage system volumes specified with the -a option of the "acgroup create" command.

3. Re-execute the command.

2.4.24 Copy progress rate using AdvancedCopy Manager Copy Control Module does not reach 100 %

Problem

The physical copy progress rate of OPC/QuickOPC performed by AdvancedCopy Manager Copy Control Module does not reach 100 %.

Troubleshooting

Execute the "acopc query" command without the -progress option and check the **Copy Phase** column. If the following status is displayed, the physical copy is completed:

- For OPC
  Not set: Copy processing is not performed.

- For QuickOPC
  Tracking: Physical copy completed, tracking is in progress.

2.4.25 The stgxfwcmsetdev command takes a long time

Problem

If the Managed Server is Linux, it takes a long time to obtain the device information using the "stgxfwcmsetdev" command.

Troubleshooting

Check the power status of the ETERNUS Disk storage system connected to the Managed Server.
If the ETERNUS Disk storage system is not powered on, power it on.

2.4.26   Exchange database backup with QuickOPC takes a long time

Problem

For VSSHP 2.0 or later, even if the Exchange database backup is set in QuickOPC, a full copy is performed instead of a differential copy and it takes a long time.

Troubleshooting

If "backup disk Pool management function" of VSSHP is set, rename or delete "backup disk Pool management file".
For "Backup disk Pool management function" and "Backup disk Pool management file", refer to the *ETERNUS VSS Hardware Provider User's Guide*.

2.4.27   In QuickOPC operations, restore fails with the swsrp0634 message

Problem

In QuickOPC operations, restore fails with the following message.

```
swsrp0634 OPC cannot be run. Error=26 SCSI command busy
```

Troubleshooting

When performing a restore (reverse copy), if the "swsrpmake" command is executed with the -T option while a QuickOPC session remains, this error is output and the command fails.
Do not specify the -T option for the "swsrpmake" command to perform a restore (reverse copy).

2.4.28   Restore (reverse copy) of replication fails with the swsrp2605 message

Problem

Restoration (reverse copy) of the replication operation fails with the following message.

```
swsrp2605 Specified volume combination is not in replication operation
```

Troubleshooting

Execute the "swsrpvolinfo" command to check the configuration information for the target volumes. If Copy (copy direction) is not set to Bi-direction (Bidirectional copy enabled), delete the copy pair settings and set the target volumes to Bidirectional copy enabled and recreate a copy pair.

- When setting Bidirectional copy to enable using Web Console

  Check the checkbox of "Enable bidirectional copying between the devices in this group" on the Create Copy Group screen.

- When setting Bidirectional copy to enable using the "swsrpsetvol" command

  - Intra-server replication

    Do not specify the -u option.
    *: If the -u option is specified, only a one way copy is enabled.

  - Inter-server replication

    Specify the "BOTH" operand of the -o option (set both the replication source server and the replication destination server to the Managed Server).

2.4.29 If Hyper-V associated function is used to execute a restore, the VLAN ID information of the guest OS cannot be indexed

Problem

If the Hyper-V associated function is used to execute a restore, the VLAN ID information of the guest OS cannot be indexed.

Troubleshooting

If a restore is performed using the Hyper-V associated function, the VLAN configuration information of the guest OS is not inherited due to the Hyper-V specification. Configure the VLAN after the restore operation.

2.4.30 If a backup of the Hyper-V guest OS is executed with AdvancedCopy Manager Copy Control Module, the copy destination is not identified by the OS and the backup to tape fails
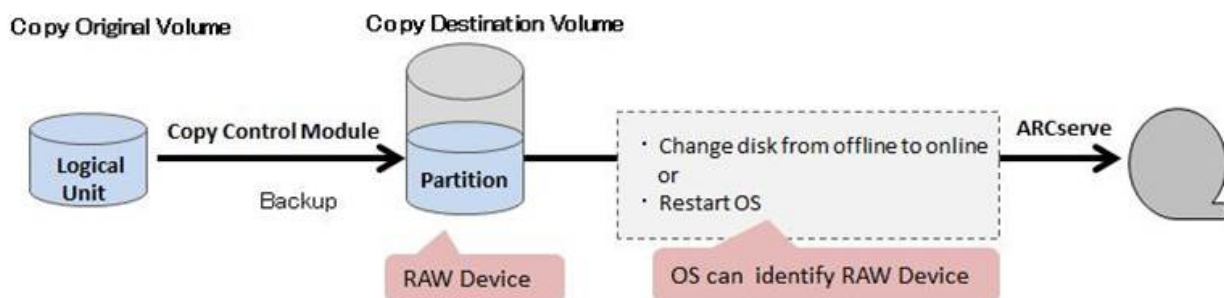
Problem

If a backup of the Hyper-V guest OS system is executed with AdvancedCopy Manager Copy Control Module using "LU to Partition", and if the copy destination is backed up with ARCserve, the OS cannot identify disk and the backup fails.

Troubleshooting

Before copying with AdvancedCopy Manager Copy Control Module (CCM), if the copy destination is in the NTFS format, the OS may not identify the disk after copying with CCM and the backup to tape will fail.
If a copy is performed using "LU to Partition", the copy destination disk will be converted to a RAW device.
Because the operation is in accordance with the OS specifications, if the CCM copy ends normally, the disk changes from disk offline -> online or the disk is identified as a RAW disk after an OS restart. After confirmation that it is identified as a RAW disk, execute the backup to tape.

2.4.31 Script terminates abnormally when VMware virtual machines are restored by automatic backup/restore script

Problem

When a virtual machine is restored using the automatic backup/restore script for VMware virtual machines, the following message is output to the log causing the script to terminate abnormally.

```
## ERROR ## : failed to delete datastore for restore. Datastore-Name.
```

Troubleshooting

System status when this event occurs

- Virtual machine restore succeeded.

- vCenter Server failed to update the display list of Datastores and terminated abnormally.

Action when this event occurs

Take the following steps for action:

1. On vSphere Client, perform an update to display the current Datastore of each ESXi server.
2. Check that the restored virtual machine can be started normally.

Action in case additional error messages are displayed

If the following message is output to the log after the message of this event, this event may have been caused by a vCenter Server failure (KB: 2055137). To prevent re-occurrence, it is recommended that you perform a version upgrade to vCenter Server 5.1Update 1a or later.

```
## ERROR ## : mm/dd/yyyy hh:mm:ss xx Remove-Datastore The vSphere HA agent on host 'hostname'
failed to quiesce file activity on datastore '/vmfs/volumes/volume id'. To proceed with the
operation to unmount or remove a datastore, ensure that the datastore is accessible, the host is
reachable and its vSphere HA agent is running.
```

2.4.32 VMware SRM "Recovery plan test" or "Recovery plan execution" fails with error code adv0010

Problem

VMware SRM "Recovery plan test" or "Recovery plan execution" fails with error code adv0010.

Troubleshooting

Check the REC transfer mode.
Set the transfer mode to "Synchronous mode" or "Consistency mode" if not already set.
For details, refer to the *ETERNUS SF AdvancedCopy Manager Adapter for VMware SRM User's Guide*.

2.4.33 After a restore is performed from a Clone backup, Windows virtual machines do not boot

Problem

In a VMware vSphere Virtual Volumes environment, after a restore is performed from a Clone backup, the following message is output to the virtual machine console of vSphere Web Client and the virtual machine does not boot.
This occurs when the operating system running in the virtual machine is Windows.

```
Status: 0xc000000e (or 0xc0000225)
Info: The selected entry could not be loaded because the application is missing or corrupt (*1)
```

*1: The message may differ depending on the version of the operating system.

Troubleshooting

Take action according to the following Knowledge Base released by VMware, Inc.

```
http://kb.vmware.com/selfservice/microsites/search.do?
language=en_US&cmd=displayKC&externalId=2001611
```

2.4.34 After a restore is performed from a Clone backup, Linux virtual machines cannot use the network

Problem

In a VMware vSphere Virtual Volumes environment, after a restore is performed from a Clone backup, Linux virtual machines cannot use the network.

Troubleshooting

In a restore from a Clone backup, a restore destination virtual machine is newly created. Also, a new MAC address is automatically assigned to the network adapter of the newly created virtual machine to avoid duplicating the original virtual machine.
Linux keeps the MAC address of the network adapter in the system configuration file as the network settings. To use the network on Linux after the restore is performed from a Clone backup, the MAC address of the original network adapter must be rewritten with a new MAC address.

Take action according to the following Knowledge Base released by VMware, Inc.

```
http://kb.vmware.com/selfservice/search.do?
cmd=displayKC&docType=kc&docTypeID=DT_KB_1_1&externalId=2002767
```

2.4.35   Virtual machine backups fail with the vmlink00052 message

Problem

In a VMware vSphere Virtual Volumes environment, a virtual machine backup fails with the following message.

```
vmlink00052 An unexpected error occurred during operation of vCenter Server.
Content of error : The object cannot be acquired from vCenter server. Error Code = 115
```

Troubleshooting

- When automatic execution of a virtual machine backup causes this error

  Check the result of a manual execution of a virtual machine backup or the result of the next automatic execution. If the event continues to occur, after restarting vCenter Server, re-execute the operation.

- When manual execution of a virtual machine backup causes this error

  Re-execute the operation.
  If the event continues to occur, after restarting vCenter Server, re-execute the operation.

2.4.36   Restore from a Clone backup fails with the vmlink00052 message

Problem

In a VMware vSphere Virtual Volumes environment, a restore from a Clone backup fails with the following message.

```
vmlink00052 An unexpected error occurred during operation of vCenter Server.
Content of error : Connection refused to vCenter Server. Error Code = 41
```

Troubleshooting

Check the update/patch for VMware vSphere (VMware vCenter Server and VMware ESXi). After applying the latest update/patch, re-execute the operation.

If the event reoccurs, check the setting status of the **Reserve all guest memory (All locked)** item for the backup source virtual machine resource settings. If a Clone backup is acquired when this item is enabled, a restore from a Clone backup may fail. Disable this item in order to acquire a Clone backup.

2.4.37   Exchange Server associated commands fail on Windows guest operating system for RHEL KVM

Problem

When Exchange Server associated commands are executed on the Windows guest operating system for RHEL KVM, the swsrp2663 error is generated.

Troubleshooting

Exchange Server associated commands are not available on the Windows guest operating system for RHEL KVM.
For available functions on the Windows guest operating system for RHEL KVM, refer to "Available functions" in the
ETERNUS SF AdvancedCopy Manager Operation Guide (for Windows). In addition, if the above is not applicable, refer
to "Collecting Troubleshooting Information" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* to collect
the information required for troubleshooting and then contact Fujitsu Technical Support.

2.4.38   SQL Server associated commands fail on Windows guest operating system for RHEL KVM

Problem

When SQL Server associated commands for the backup management function are executed on the Windows
operating system for RHEL KVM, the swst0772 error is generated.

Troubleshooting

When using SQL Server associated commands on the Windows guest operating system for RHEL KVM, use the
command for the replication management function.
If the above is not applicable, refer to "Collecting Troubleshooting Information" in the *ETERNUS SF AdvancedCopy
Manager Operation Guide* to collect the information required for troubleshooting and then contact Fujitsu Technical
Support.

2.4.39   When EC or REC is running on RHEL6, error messages are output to /var/log/messages

Problem

In the following environments and conditions, the error message "Sense Key : Illegal Request, ASC=0x26, ASCQ=0x9b"
may be output to the "/var/log/messages" file.

Environment

- For RHEL6

- If the following devices are used:

    - by-id format

    - by-path format

    - compatible format

Conditions

- Start or resume of EC or REC.

- Referring to the copy status of EC or REC. (Error messages are output only for the initial copy status and the
  differential copy status)

Troubleshooting

Perform the following actions on RHEL6:

1. Modify the following line of the /lib/udev/rules.d/60-persistent-storage.rules file.

    Before modification: KERNEL!="xvd*|sr*", OPTIONS+="watch"
    After modification: KERNEL!="xvd*|sr*|sd*", OPTIONS+="watch"

2. Reboot the operating system (RHEL6).

2.4.40 Application of a patch for RHEL5 outputs "Not registered in repair control book" message and fails

Problem

Application of a patch for RHEL5 outputs the "either the product or component is not installed, or not registered in repair control book" message and application of the patch fails.

Conditions

- In the environment of RHEL5 (for x64), AdvancedCopy Manager 64-bit edition

- When applying the patch for RHEL5 (for x86), AdvancedCopy Manager 32-bit edition

Troubleshooting

The patch for the AdvancedCopy Manager 32-bit edition cannot be applied to the AdvancedCopy Manger 64-bit edition.
Apply the correct patch.

2.4.41 Start/Stop commands for Solaris daemons, configuration management commands, and set/unset commands for clustered system environments fail

Problem

Start/Stop commands for Solaris daemons, configuration management commands, and set/unset commands for clustered system environments fail with the following messages:

- Command to start ACM daemon (startacm)

```
SymfoWARE/RDB for AdvancedCopy Manager failed to start
```

- Command to stop ACM daemon (stopacm)

```
SymfoWARE/RDB for AdvancedCopy Manager failed to stop
```

- Command to start-stop RDB daemon (stgdbcom)

```
SymfoWARE/RDB for AdvancedCopy Manager failed to start
SymfoWARE/RDB for AdvancedCopy Manager failed to stop
```

- Command to check the usage of the updated repository area (stgdbloginf)

```
ERROR: Failed to fetch archive log status.
```

- Command to migrate repository data (stgrepocnv)

```
ERROR : Failed to activate RDB.
```

- Command to back up database (stgdbdmp)

```
ERROR : Failed to activate RDB.
```

- Command to restore database (stgdbrcv)

```
ERROR : RDB dictionary recovery failed.
```

- Command to set up and integrate databases (stgdbset)

```
ERROR : Failed to create a RDB dictionary and RDB directory file.
ERROR : Failed to create a log management file.
```

- Command to unset repository settings (stgdbunset)

```
ERROR : Failed to delete the RDB archive log file
ERROR : Failed to activate RDB.
```

- Command to create/remove environments for the repository function of clustered system (StgDbSetup)

```
ERROR : Failed to create a RDB dictionary and RDB directory file.
ERROR : Failed to create a log management file.
```

Troubleshooting

Specify "/opt/FSUNrdb2b/lib" for the value of environment variable LD_LIBRARY_PATH_64 and re-execute the command.

2.4.42 Partition on the multipath device (Device Mapper Multipath device) created in RHEL6 cannot be detected with the stgxfwcmsetdev command

Problem

Despite creating a partition on the multipath device (Device Mapper Multipath device) using the "parted" command in the Managed Server and then running the "stgxfwcmsetdev" command in the Management Server, the created partition is not displayed as a detected device.

Troubleshooting

In the Managed Server, upgrade the version of the "parted" command to parted-2.1-19 or later and re-create the partition of the multipath device. After that, execute the "stgxfwcmsetdev" command in the Management Server.

2.4.43 Partition on the multipath device (Device Mapper Multipath device) deleted in RHEL6 is detected with the stgxfwcmsetdev command

Problem

Despite deleting the partition on the multipath device (Device Mapper Multipath device) using the "parted" command in the Managed Server and then running the "stgxfwcmsetdev" command in the Management Server, the deleted partition is displayed as a detected device.

Troubleshooting

In the Managed Server, perform either of the following actions:

- Reboot the operating system (RHEL6).

- Execute the "dmsetup remove" command by specifying the deleted partition.

After performing the above action, execute the "stgxfwcmsetdev" command in the Management Server.

2.4.44 Configuration management commands fail with the swstf5013 message

Problem

If the Management Server is Linux or Solaris, running the following configuration management command or performing the **Reload Conf.** operation in the **Server** tab with Web Console displays the swstf5013 message and fails:

stgxfwcmdispsrv, stgxfwcmaddsrv, stgxfwcmdeldev, stgxfwcmdelsrv,
stgxfwcmdispdev, stgxfwcmdisppat, stgxfwcmmodsrv, stgxfwcmsetdev

Troubleshooting

Check whether the environment variable RDBNAME is set on the screen that started AdvancedCopy Manager daemon or in a file such as ".profile" to load when starting the operating system.

If the environment variable RDBNAME is set, delete the environment variable RDBNAME, not the environment variable value. After that, stop and restart the AdvancedCopy Manager daemon.

To start and stop daemon for AdvancedCopy Manager, refer to "Starting and Stopping Daemons" in the *ETERNUS SF AdvancedCopy Manager Operation Guide*.

2.4.45 Higher CPU usage rate of ETERNUS SF Manager Tomcat daemon/ service is proportionate to the number of copy groups

Problem

A higher CPU usage rate of the ETERNUS SF Manager Tomcat daemon/service is proportionate to the number of copy groups created in the ETERNUS SF system.

Troubleshooting

When a copy group is created, the ETERNUS SF system reflects the status of the copy group in the background. This increases the CPU usage rate of the ETERNUS SF Manager Tomcat daemon/service in proportion to the number of created copy groups.
If you want to prevent the CPU usage rate of the ETERNUS SF Manager Tomcat daemon/service from getting higher, integrate copy groups to decrease the number.

2.4.46 Failback of clustered systems fail in a Windows environment

Problem

In a Windows cluster environment, when a failover is executed from the active site to the standby site, the subsequent failback from the standby site to the active site may fail.

Troubleshooting

This failure is caused by forcibly stopping the processes of the generic services in the clustered system.
After performing the following step in the Management Server on the active site, re-execute failback from the standby site to the active site.

1. Execute the "netstat -ano" command and identify the process ID that is using TCP port 24917.

   Find the row that includes ":24917" in the **Local Address** column from the command execution result. The value displayed in the **PID** column of that row is the process ID.

   ### 🅿 Point
   ∙∙∙
   TCP port 24917 is the default value used for internal communication port of ETERNUS SF Manager. If you changed the port number, identify the process ID that uses the changed port number.
   ∙∙∙

   If none of the rows include ":24917" in the **Local Address** column of the command execution result, step 2 onwards are not required. Refer to "Collecting Troubleshooting Information" in the *ETERNUS SF AdvancedCopy Manager Operation Guide* to collect the information required for troubleshooting and then contact Fujitsu Technical Support.

2. With Windows Task Manager, stop the process (java.exe) with the process ID that was identified in step 1.

3. If the process of ETERNUS SF Manager Postgres Service (postgres.exe) is displayed in Windows Task Manager, stop the process.

2.4.47　The esgui04007 message is displayed when the Backup Wizard for Exchange Server is executed

Problem

If the Backup Wizard for Exchange Server is executed, the following message is displayed.

```
esgui04007 Server (serverName) is not registered in the ETERNUS SF. Please check registered of Server.
```

Troubleshooting

Cancel the wizard, and register the server (*serviceName*) in ETERNUS SF Manager. After that, re-execute the wizard. Refer to the *ETERNUS SF Web Console Guide* and *ETERNUS SF AdvancedCopy Manager Operation Guide (for Windows)* for information on registering a server into ETERNUS SF Manager.

If the server output for *serverName* is a backup server, the server name of the backup server registered in ETERNUS SF Manager might be different from the host name of the backup server registered in VSSHP. Check if the server name of the backup server registered in ETERNUS SF Manager is the same as the host name of the backup server registered in VSSHP including upper and lower case letters. If not, re-register the backup server in ETERNUS SF Manager conforming to the host name of the backup server registered in VSSHP. After that, re-execute the wizard. To check the host name of the backup server registered in VSSHP, execute the "stxvchkcommu" command of VSSHP in the Mailbox Server. Refer to "Communication Environment Check Command (stxvchkcommu)" in the *ETERNUS VSS Hardware Provider User's Guide* for information on the command.

2.4.48　A backup or replication of an SDX object fails with the swst0740, swsrp0740, or swst0635 message in Linux environments

Problem

A backup or replication process of an SDX object fails with one of the following messages.

```
swst0740 The advanced copy function cannot be used. Error=2(invalid logical volume name.)
```

or

```
swsrp0740 The advanced copy function cannot be used. Error=2(invalid logical volume name.)
```

or

```
swst0635 Free Backup Volume Pool cannot be obtained.
```

Conditions

This problem occurs when all of the following conditions are satisfied.

- The operating system is RHEL6 or later.

- Backup or replication of an SDX object is performed.

- The SDX object operation is in units of slices.

- The copy source or copy destination volume is a normal device.

- The udev device name is used as the normal device name format.

Troubleshooting

Among the by-id files managed by Linux's udev, the by-id files for disks that are not registered with PRIMECLUSTER GD may be lost temporarily due to the "sdxinfo" command of PRIMECLUSTER GD being executed internally by AdvancedCopy Manager. As a result, a backup or replication process may fail because the target volume is not found. After confirming that the by-id files for the registered udev devices exist, re-execute the command that terminated with an error.

This can be avoided by executing the "sdxinfo" command of PRIMECLUSTER GD in-between the time after the OS is booted until the time the backup or replication operation with AdvancedCopy Manager is started on the OS. Ignore the message that appears when the "sdxinfo" command is executed in this step.

For details on the "sdxinfo" command, refer to the PRIMECLUSTER GD manuals.

2.4.49 Postgres Error Messages Are Output to Syslog in Linux Environments

Problem

If the Management Server is Linux, the following error message is regularly output to the system log.

```
ERROR: null value in column "tier_pool_name" violates not-null constraint
```

Troubleshooting

This event occurs when the Linux Hugepages function is enabled in the Management Server. Take either of the following actions:

- For ETERNUS SF Manager and software that uses the Hugepages function, install them on different servers to separate the operating environment.

- Check the Hugepages memory usage and then add the amount of memory used by ETERNUS SF Manager to the settings of the Hugepages function.

  If the Management Server has the Hugepages function enabled, ETERNUS SF Manager uses the Hugepages memory. Because the Hugepages memory is allocated from the physical memory, the physical memory may become insufficient due to the amount of added memory used by ETERNUS SF Manager, so add more physical memory.

  For the amount of memory used by ETERNUS SF Manager, refer to "Operating Environment of ETERNUS SF Manager" in the *ETERNUS SF Installation and Setup Guide*. For information on how to check the Hugepages memory usage and how to add memory, refer to the OS manual.

2.4.50 The Wizard's Remote Advanced Copy Configuration Terminates with the ssmgr3539 Message

Problem

If the REC path is set using the wizard's Remote Advanced Copy configuration, the REC path state on the storage device side may take time to normalize due to the network environment and the distance between the Management

Server and target storage device, so the wizard's Remote Advanced Copy configuration may terminate with the ssmgr3539 message.

Troubleshooting

In an environment where the REC path state on the storage side may take time to normalize, perform a REC path setting and REC path response time measurement using the following procedure instead of using the wizard.

1. Set the REC path using the procedure described in "Display/Set REC Path" of the *ETERNUS SF Web Console Guide*.

2. In the REC path details screen, confirm that the **Status** field is "Normal".
   Depending on the environment, it may take up to 10 minutes to become "Normal".

3. Measure the round trip time of the REC path using the procedure described in "Measure Round Trip Time for REC Path" of the *ETERNUS SF Web Console Guide*.

2.4.51   The "Reset to device, \Device\RaidPort0, was issued" message is periodically output to the Windows event log

Problem

The following message is periodically output to the event log of the Windows that is running as the Management Server when virtual machines are being backed up in a VMware vSphere Virtual Volumes environment.

```
Reset to device, \Device\RaidPort0, was issued
```

Conditions

This problem occurs when all of the following conditions are satisfied.

- The Management Server is configured in a virtual machine on the same ESXi as the VMware vSphere Virtual Volumes environment.

- AdvancedCopy Manager Copy Control Module of the above Management Server is operating with the Copy command via SAN.

- Clone backups are being performed.

- Virtual machines with clone backup history have been deleted.

Troubleshooting

Perform the following steps from Web Console and delete any unnecessary copy groups and the clone backup history.

1. Click the backup copy group name field of the target VMware guest name on the **Clone Backup History** tab of the VVOL Backup History screen.

2. Click the link of the copy group name on the displayed dialog box that shows a list of copy group names.
   The Copy Group Detail screen appears.

3. Delete the copy group displayed on the Copy Group Detail screen.

4. If the clone backup history is not needed, delete it from the **Clone Backup History** tab on the VVOL Backup History screen.