

IBM Spectrum Protect
8.1.17

Server Messages and Error Codes



Note:

Before you use this information and the product it supports, read the information in [“Notices” on page 67.](#)

Edition notice

This edition applies to version 8, release 1, modification 17 of IBM Spectrum® Protect (product numbers 5725-W98, 5725-W99, 5725-X15, 5725-X18) and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright International Business Machines Corporation 1993, 2022.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

About this publication.....	V
Who should read this publication.....	v
Publications	v
Chapter 1. Introduction to messages.....	1
IBM Spectrum Protect server and client messages format.....	1
Interpreting return code messages.....	2
Example one for QUERY EVENT command.....	3
Example two for DEFINE VOLUME command.....	3
Chapter 2. ANE messages.....	5
ANE messages list.....	5
Chapter 3. ANR messages.....	49
ANR messages list.....	49
Chapter 4. I/O code descriptions in server messages.....	51
Device drivers completion code and operation code descriptions overview.....	52
Completion code values common to all device classes.....	52
Completion code values for media changers.....	53
Completion code values for tape drives.....	55
Standard ASC and ASCQ codes descriptions.....	57
ASC and ASCQ codes in the Windows Event Log entries.....	61
Chapter 5. Device error codes in the AIX system error log.....	63
Appendix A. Accessibility.....	65
Notices.....	67
Glossary.....	71

About this publication

IBM Spectrum Protect is an enterprise-wide storage management application for the network. It provides automated storage management services to multi-vendor workstations, personal computers, and local area network (LAN) file servers.

This publication contains explanations and suggested actions for messages issued by the IBM Spectrum Protect server.

Who should read this publication

The target audience for this publication is system administrators who service the IBM Spectrum Protect components. In this publication, it is assumed that you have a working knowledge of the IBM Spectrum Protect server and client components.

Publications

The IBM Spectrum Protect product family includes IBM Spectrum Protect Plus, IBM Spectrum Protect for Virtual Environments, IBM Spectrum Protect for Databases, and several other storage management products from IBM®.

To view IBM product documentation, see [IBM Documentation](#).

Chapter 1. Introduction to messages

Messages, error codes, and return codes are issued by the IBM Spectrum Protect server and clients.

Messages and codes can appear on the server console, the administrative client, an operator terminal, the administrative graphical user interface, the backup-archive client, or the hierarchical storage management client (HSM client).

IBM Spectrum Protect provides an activity log to help the administrator track server activity and monitor the system. The activity log contains messages generated by the server, and is stored in the database. The server automatically deletes messages from the activity log after they have passed the specified retention period. Any messages sent to the server console are stored in the activity log. Examples of the types of messages stored in the activity log include:

- When client sessions start or end
- When migration starts or ends
- When backed up files are expired from server storage
- Any output generated from background processes

Some messages have no explanations and are not published. The client can send statistics to the server providing information about a backup or restore. These statistics are informational messages that can be enabled or disabled to the various event logging receivers. These messages are not published.

IBM Spectrum Protect server and client messages format

IBM Spectrum Protect server and client messages consist of the following elements:

- A three-letter prefix. Messages have different prefixes to help you identify the IBM Spectrum Protect component that issues the message. Typically, all messages for a component have the same prefix. Sometimes a component issues messages with two or three different prefixes.

For example, backup-archive clients issue messages with the ANS prefix. Backup-archive client events that are logged to the server have the ANE prefix. Server common and server platform-specific messages have the ANR prefix.

- A numeric message identifier.
- A one-letter severity code. The following codes indicate the severity of the action that generated the message:

Code	Severity	Meaning
S	Severe	The product or a product function cannot continue. User response is required.
E	Error	An error is encountered during processing. Processing might stop. User response might be required.
W	Warning	Processing continues, but problems might occur later as a result of the warning.
I	Information	Processing continues. User response is not necessary.

- Message text that is displayed on screen and written to message logs.
- Explanation, System Action, and User Response texts. These texts elaborate on the message text, and are available in the product messages publications and in the command line help.

The following image presents a typical IBM Spectrum Protect server message.

The callouts identify each element of the message.



Message variables in the message text appear in italics.

Interpreting return code messages

Many different commands can generate the same *return code*. The following examples are illustrations of two different commands issued that result in the same return code; therefore, you must read the *descriptive message* for the command.

In these examples, two different commands yield the same return code, but they also return descriptive messages that are unique to each command. The two commands are `q event standard dddd` and `def vol cstg05 primary`. Both yield a generic message with return code:

```
ANS5102I: Return Code 11.
```

But the first command also yields a descriptive message:

```
ANR2034I: QUERY EVENT: No match found for this query.
```

And the second command also yields a unique, descriptive message:

```
ANRxxxx: DEFINE VOLUME: Storage pool CSTG05 is not defined.
```


Example one for QUERY EVENT command



Example two for DEFINE VOLUME command



Chapter 2. ANE messages

ANE messages are issued by the server. All messages with the ANE prefix are client events logged to the server.

ANE messages list

Messages are listed in ascending numerical order. All elements of the message are documented.

For a list of new, changed, and deleted server messages, see the following files in the server installation directory:

Release_msg_chgs

This file contains all new, changed, and deleted messages from the previous server version to the current version.

Maint_msg_chgs

This file contains all new, changed, and deleted messages from the current server version to the current release.

These files are in the *installation_directory*\doc directory for Windows operating systems and the *installation_directory*/server/bin/ directory for all other operating systems.

These files are also available in [New, changed, and deleted server messages](#) on the IBM Spectrum Protect wiki.

ANE4000E **Error processing '*filespace-name*':
file space does not exist.**

Explanation

The specified file space (domain) is incorrect or does not exist on the workstation. If the message results from the BACKUP IMAGE command with the -MODE=INCREMENTAL option, it means that you have entered the name of a raw logical volume. The MODE=INCREMENTAL option is not valid for raw logical volumes.

System action

Processing stops.

User response

Try the operation again, specifying an existing domain (drive letter or file system name). If the message resulted from improper use of the MODE=INCREMENTAL option, try the command again, omitting that option.

Explanation

The specified file space was expected to be found on the server, but it no longer exists. It is possible that a command was issued to delete the file space from the server while the current operation was in progress.

System action

IBM Spectrum Protect processing stops.

User response

Try the operation again. If the problem recurs, check the error log for any other messages that might indicate a reason for the failure. Try to correct any indicated problems, then try the operation again. If the problem persists, contact IBM technical support for further assistance.

ANE4002E **Error processing '*filespace-name*':
volume label does not exist**

Explanation

The selected drive does not have a label.

System action

IBM Spectrum Protect is unable to do the requested operation without a drive or label entered.

ANE4001E **The file space for domain
'*filespace-name*' could not be
found on the IBM Spectrum
Protect server.**

User response

If the drive is a floppy drive, place a disk with a volume label in it and retry the operation. If the disk is a hard drive, ensure the drive has a volume label, and retry the operation.

ANE4003E	Error processing '<i>filesystem-name</i>': duplicate volume label encountered
-----------------	--

Explanation

The selected drive has a duplicate volume label. Because IBM Spectrum Protect uses the volume label to keep track of backup/archive information, it cannot back up or archive files from a drive with a duplicate volume label.

System action

IBM Spectrum Protect cannot select the drive.

User response

If the volume needs to be available to the system, exit IBM Spectrum Protect, and assign a volume label to the drive. Restart IBM Spectrum Protect and retry the operation.

ANE4004E	Error processing '<i>filesystem namepath-namefile-name</i>': destination file or directory is write locked
-----------------	---

Explanation

The file or directory being restored or retrieved from the server cannot be written to because the destination is write locked. Another operation might have the file open and will not allow it to be updated.

System action

File skipped.

User response

Either determine which operation has the file write locked, or restore the file to another name or location.

ANE4005E	Error processing '<i>filesystem namepath-namefile-name</i>': file not found
-----------------	--

Explanation

The file being processed for backup, archive or migrate no longer exists on the client. Another process deletes

the file before it can be backed up, archived or migrated by IBM Spectrum Protect.

System action

File skipped.

User response

None.

ANE4006E	Error processing '<i>filesystem namepath-namefile-name</i>': directory path not found
-----------------	--

Explanation

The operating system returned a "path not found" status when IBM Spectrum Protect attempted to access the directory. You either have specified a directory that does not exist, as shown in the message (*path-name*), or the directory being processed no longer exists on the client because another process deleted it before it could be backed up or archived by IBM Spectrum Protect.

System action

The directory is skipped, processing continues

User response

Recheck all spelling and punctuation, particularly the placement of directory delimiters (for example, "\"). Correct the syntax if it is incorrect, then retry the operation. Ensure that the path is specified correctly and that the directory actually exists. Retry the command with the corrected path and directory name. If you cannot correct the directory name, use the Exclude option to exclude the directory from the operation.

ANE4007E	Error processing '<i>filesystem namepath-namefile-name</i>': access to the object is denied
-----------------	--

Explanation

Access to the specified file or directory is denied. You tried to read from or write to a file and you do not have access permission for either the file or the directory.

System action

Processing stopped.

User response

Ensure that you specified the correct file or directory name, correct the permissions, or specify a new location. If HSMOPTIMIZEDRECALLONLY is set on the file system owner node, recall this file via optimized recall prior to the next backup.

ANE4008E	Error processing '<i>filesystem namepath-namefile-name</i>': file is temporarily unavailable
-----------------	---

Explanation

File is temporarily unavailable.

System action

File skipped.

User response

Check and see if file is locked by other process. If not, retry the command.

ANE4009E	Error processing '<i>filesystem namepath-namefile-name</i>': disk full condition
-----------------	---

Explanation

No more files can be restored or retrieved because the destination disk is full.

System action

The client prompts you for action:

- Retry this object
- Skip this object
- Abort the action

User response

Select the appropriate action for this object. Create some free space on the destination disk before you retry the operation. Another option is to restore or retrieve the file to another disk.

ANE4010E	Error processing '<i>filesystem namepath-namefile-name</i>': stale NFS handle
-----------------	--

Explanation

An NFS file system becomes stale.

System action

File system skipped.

User response

Verify that the NFS file system is mounted. If the problem persists, unmount and remount the file system, then try the operation again.

ANE4011E	Error processing '<i>filesystem namepath-namefile-name</i>': no file handles available
-----------------	---

Explanation

All file handles for your system are currently in use. No more are available.

System action

Processing stopped.

User response

Either free some file handles by ending other processes, or modify your system setup to allow for more files to be open at the same time.

ANE4012E	'<i>filesystem namepath-namefile-name</i>' already exists. It will be skipped.
-----------------	---

Explanation

The client tried to restore or retrieve the specified file, but the file already existed in the target restore location and the user chose not to replace the existing file.

System action

The file is skipped, a message is logged in dsmerror.log, and restore or retrieve processing continues with the next object.

User response

The file was skipped because either REPLACE NO was in effect, causing all existing files and directories to be skipped, or REPLACE PROMPT was in effect, and when prompted, the user chose to skip this file or all existing directories and files. No additional action is necessary if the decision to skip the file was deliberate. Otherwise the operation can be retried using either REPLACE ALL REPLACE PROMPT.

ANE4013E **Error processing '*filesystem namepath-namefile-name*': invalid file handle**

Explanation

An internal system error occurred. A file operation failed because an invalid file handle was passed.

System action

Processing stopped.

User response

Report the problem to your system administrator, and then retry the operation.

ANE4014E **Error processing '*filesystem namepath-namefile-name*': unknown system error (*error-code*) encountered. Program ending.**

Explanation

An unrecognized and unexpected *error-code* occurred within the client program. This is a programming failure and the client program ends.

System action

processing stops.

User response

Try the operation again. If the problem continues, report the error to your IBM Spectrum Protect administrator.

ANE4015E **Error processing '*filesystem namepath-namefile-name*': unexpected IBM Spectrum Protect error (*error-code*) encountered**

Explanation

An unexpected error occurred. This might be a low-level system or communication error that IBM Spectrum Protect cannot handle or recover from.

System action

processing stops.

User response

Try the operation again. If the problem continues, look for other indications of system problems to determine where the problem exists. Most systems

have error or event logs which may contain additional information. See your system administrator or IBM Spectrum Protect administrator for further help.

ANE4016E **Error processing '*filesystem namepath-namefile-name*': file is being executed; write permission denied**

Explanation

The current file cannot be opened to write to because it is currently being run by another operation.

System action

File skipped.

User response

Stop the operation that is running the file and retry the operation, or restore or retrieve the file to a different name or directory.

ANE4017E **Error processing '*filesystem namepath-namefile-name*': too many symbolic links were detected while resolving name**

Explanation

While trying to resolve the file name, too many symbolic links were found.

System action

File skipped.

User response

Ensure that you do not have a looping symbolic link for the file.

ANE4018E **Error processing '*filesystem namepath-namefile-name*': file name too long**

Explanation

The file name specified is too long to be handled by IBM Spectrum Protect.

System action

File is skipped.

User response

See the appropriate *Using the Backup-Archive Client* book for the particular operating system, for the file names that are handled by IBM Spectrum Protect.

ANE4019E	Error processing 'filespace namepath-namefile-name': file system is locked by system
-----------------	---

Explanation

File system cannot be accessed because it is locked by the system.

System action

IBM Spectrum Protect cannot complete the operation.

User response

See your system administrator.

ANE4020E	The data format for object 'filespace namepath-namefile-name' is unknown. The unknown format usually occurs when the file was backed up or archived by a later version of IBM Spectrum Protect.
-----------------	--

Explanation

When a file is backed up or archived, IBM Spectrum Protect includes some additional information about the file. This message is issued if IBM Spectrum Protect cannot recognize the information during a restore or retrieve operation. The most likely cause is that the file was backed up or archived with a newer version of IBM Spectrum Protect. If the file was backed up from a case-preserving but not case-sensitive file system, the file name might be displayed with incorrect casing. The incorrect casing does not otherwise affect processing since the file is skipped.

System action

The file is not restored or retrieved. Processing continues with the next file.

User response

Try the restore or retrieve operation again with a current version of the IBM Spectrum Protect client software. If the problem persists, contact IBM technical support for further assistance.

ANE4021E	Error processing 'filespace namepath-namefile-name': file system not ready
-----------------	---

Explanation

The file system/drive was not ready for access.

System action

Processing stopped.

User response

Ensure that the drive is available to IBM Spectrum Protect, and then retry the operation.

ANE4022E	Error processing 'filespace namepath-namefile-name': file system is invalid.
-----------------	---

Explanation

The drive was not available for access.

System action

processing stops.

User response

Ensure that the drive is operational, and then try the operation again. If this is unsuccessful, check the error log.

ANE4023E	Error processing 'filespace namepath-namefile-name': file input/output error
-----------------	---

Explanation

An error was found while reading from or writing to the file.

System action

File skipped.

User response

Check your system to ensure that it is operating properly.

ANE4024E	Error processing 'filespace namepath-namefile-name': file write error
-----------------	--

Explanation

An error was found while writing to the file.

System action

File skipped.

User response

Check your system to ensure that it is operating properly.

ANE4025E	Error processing 'filesystem namepath-namefile-name': file exceeds user or system file limit
-----------------	---

Explanation

A file being backed up/restored or archived/retrieved exceeds system set limits for this user. Shown below are the filesize limits corresponding to various platforms.

AIX

68,589,453,312 (64GB)

HP-UX

1,099,511,627,775 (1TB-1)

Linux

2,147,483,647 (2GB)

Mac pre-OS9

2,147,482,624 (2GB-1K)

Mac OS9

18,446,744,073,709,551,616 (16EB)

NetWare

4,294,963,200 (4GB -4KB)

NUMA-Q DYNIX/ptx

4.5 1,095,216,660,480 (1TB-4GB)

OS/390

4,294,967,295 (4GB)

SGI

18,446,744,073,709,551,615 (16EB-1)

Solaris 2.6 or higher

1,099,511,627,775 (1TB-1)

Tru64 UNIX

1,099,511,627,776 (1TB)

UnixWare

2,147,483,647 (2GB)

Windows ME (FAT32)

4,294,967,295 (4GB)

Windows NT/2000 (NTFS)

17,592,185,978,880 (16TB-64K)

System action

File skipped.

User response

Ensure that the system limits are set properly.

ANE4026W	Error processing 'filesystem namepath-namefile-name': size of 'file-size' exceeded the maximum file size limit on your system
-----------------	--

Explanation

You tried to restore or retrieve a file that has exceeded the maximum file size limitation on your system.

System action

IBM Spectrum Protect cannot restore or retrieve the file.

User response

Restore or retrieve this file on a system that supports the file size. See your system administrator.

ANE4027S	Error processing 'filesystem namepath-namefile-name': internal program message 'value' encountered
-----------------	---

Explanation

An unexpected catastrophic program failure occurred, indicated by *value*.

System action

Processing stopped.

User response

Retry the operation. If the problem continues, see your system administrator or service representative.

ANE4028E	Error processing 'filesystem namepath-namefile-name': cannot create file/directory entry
-----------------	---

Explanation

The directory path for files being restored or retrieved cannot be created.

System action

File skipped.

User response

Ensure that you have the proper authorization to create the directory for file being restored or retrieved.

ANE4029E **Error processing 'filespace namepath-namefile-name': unable to build a directory path; a file exists with the same name as a directory**

Explanation

IBM Spectrum Protect tried to create a directory path, but is unable to because a file exists that has the same name as a directory.

System action

Processing stopped.

User response

Remove the file that has the same name as the directory. Refer to the last restore/retrieve operation and check all directories along the path.

ANE4030E **Error processing 'filespace namepath-namefile-name': disk space limit for this process reached**

Explanation

The disk space allocated for the client owner is full.

System action

Processing stopped.

User response

Free up disk space and retry the restore or retrieve operation.

ANE4031E **Error processing 'file_space_namepath_namefile_name'. Name exceeds an internal IBM Spectrum Protect limit.**

Explanation

During a file operation, IBM Spectrum Protect encountered a filename where at least one component of the file name (file_space_name, path_name or directory_name or file_name) exceeded an internal IBM Spectrum Protect maximum. The internal IBM Spectrum Protect limits should not be confused

with the operating system limits for file_space_name, path_name or directory_name, file_name.

Shown below are the IBM Spectrum Protect internal file name limits for various platforms.

AIX HP-UX Solaris	
File_space_name	1024
Path_name or directory_name	1023
File_name	256
Linux	
File_space_name	1024
Path_name or directory_name	768
File_name	256
Windows XP/2000/2003	
File_space_name	1024
Path_name or directory_name	248
File_name	248

System action

The file is skipped.

User response

Reduce the size of the filename so that it is smaller than the IBM Spectrum Protect internal limits.

ANE4032E **Error processing 'filespace namepath-namefile-name': file is not compressed.**

Explanation

A file that was flagged as compressed was not compressed, and the system failed.

System action

Processing stopped.

User response

See your system administrator to report this problem. This error is a system failure.

ANE4033E **Error processing 'filespace namepath-namefile-name': file compressed on a different client machine that has more memory**

Explanation

You are trying to restore a file that was backed up and compressed on another client workstation that had more memory than your client workstation. You cannot restore this file. When the file is restored, it is expanded and your workstation does not have enough memory.

System action

IBM Spectrum Protect canceled the operation.

User response

Obtain a machine with more memory and retry the operation.

ANE4034E	Error processing '<i>filesystem namepath-namefile-name</i>': unknown system error
-----------------	--

Explanation

An unknown error occurred. This might be a low-level system or communication error that IBM Spectrum Protect cannot handle or recover from.

System action

Processing stopped.

User response

Retry the operation. If the problem continues, determine where the problem exists. See your system administrator for further help.

ANE4035W	File '<i>filesystem namepath-namefile-name</i>' currently unavailable on server.
-----------------	---

Explanation

You tried to restore or retrieve a file that is currently not available from the IBM Spectrum Protect server.

System action

IBM Spectrum Protect Cannot restore or retrieve the file.

User response

Try to restore or retrieve after the file was made available on the server. See your system administrator.

ANE4036E	An error occurred saving the registry key.
-----------------	---

Explanation

The active registry key cannot be copied to the ADSM.SYS staging directory.

System action

Registry backup operation terminates.

User response

Check the space available on the Windows boot partition to ensure there enough space to contain a copy of the Windows registry. This might require several megabytes of free space. Also check the Windows permissions on the ADSM.SYS staging directory and ensure that the Windows user under which you are running IBM Spectrum Protect has full access to that directory and its contents.

ANE4037E	Object '<i>file-namefile-namefile-name</i>' changed during processing. Object skipped.
-----------------	---

Explanation

The specified *file-name* was skipped during backup, archive, or migrate because it was changing during the attempt to process it.

System action

IBM Spectrum Protect skipped the object.

User response

If you want the file backed up, archived, or migrated, retry the operation. If it fails, determine why the object is being changed. For more information on backing up, archiving, or migrating changing objects, see your system administrator.

ANE4038E	An error occurred processing file system '<i>filesystem name</i>'.
-----------------	---

Explanation

File system '*filesystem name*' is corrupted or contains one or more corrupted directories and cannot be processed.

System action

File system is skipped.

User response

Check your system to ensure that it is operating properly. For the Windows environment, run CHKDSK utility for the failing drive. More information about corrupted directories can be found in dsmerror.log.

ANE4039E	Error processing '<i>filesystem namepath-namefile-name</i>': compressed file is corrupted and cannot be expanded.
-----------------	--

Explanation

The compressed file cannot be expanded correctly due to one of the following reasons:

- There is a problem on the tape.
- There is a communications problem.
- The compressed file was corrupted on the IBM Spectrum Protect Server.

System action

File skipped.

User response

1) The compressed file is corrupted because there is a problem on the tape. To know if this is the problem, please issue the following command on the IBM Spectrum Protect Server: audit volume <volume_name> fix=no If there is any problem reported, you could move the data from that volume to a new one (see command MOVE DATA) and try again the restore. 2) There are communications problems between the IBM Spectrum Protect Server and the IBM Spectrum Protect Client and the results is that the file is corrupted during the transmission. If you use a gigabit ethernet adapter on the Server please upgrade the card driver (AIX platform) or add provided by SUN suggested changes to some system network options which have resolved this problem (SUN platform). 3) Please verify with your network support if during the restore there are no any problems between the IBM Spectrum Protect Client/Server that is originating the file corruption.

ANE4040E	Error processing '<i>filesystem namepath-namefile-name</i>': file system <i>filesystem name</i> has exceeded its space management quota.
-----------------	---

Explanation

IBM Spectrum Protect detects that the file system has exceeded its quota. No more data can be migrated out of this file system.

System action

IBM Spectrum Protect will not migrate files from this file system.

User response

Recall some files, or ask the system administrator to increase the quota for this file system.

ANE4041E	A Windows Server 2008 or 2008 R2 VMware guest cannot be restored with a non-Windows data mover.
-----------------	--

Explanation

A Windows data mover must run certain commands to complete the restore of the Active Directory. Non-Windows data movers do not have the necessary tools to complete this operation. Windows VMware guests that are at Windows Server 2012 or higher are not affected by this restriction.

System action

Processing stops.

User response

Use a Windows data mover to complete this action.

ANE4042E	Object name '<i>filesystem namepath-namefile-name</i>' contains one or more unrecognized characters and is not valid.
-----------------	--

Explanation

The file name, directory name, or volume label syntax is incorrect.

System action

The file is skipped.

User response

Check the disk for errors.

ANE4044E	Error processing '<i>filesystem-namepath-namefile-name</i>': Case-sensitive name conflict exists.
-----------------	--

Explanation

While processing the specified file on the workstation, another file name was encountered with a similar name which only differed in case. The Backup-Archive client does not allow names which differ only in case on this platform and cannot guarantee the integrity of the file, so the file is skipped.

System action

This object will be skipped.

User response

Rename the file in question to a unique name.

ANE4045E	Error processing '<i>filespace-namepath-namefile-name</i>': Case-sensitive name conflict exists. The directory tree will be skipped.
-----------------	---

Explanation

While processing the specified file on the workstation, another object name was encountered with a similar name which only differed in case. The Backup-Archive client does not allow names which differ only in case on this platform and cannot guarantee the integrity of the file, so the directory and all of the objects contained within it are skipped.

System action

This object will be skipped.

User response

Rename the file in question to a unique name.

ANE4046E	There is an error processing '<i>filespace-namepath-namefile-name</i>': the object is corrupted and unreadable.
-----------------	--

Explanation

You tried to read from or write to a file or directory that is corrupted. The corrupted file is skipped. If this is a directory, the objects contained in the directory and its subdirectories are skipped.

System action

This object will be skipped.

User response

Check your system to ensure that the filespace is not corrupted by using system tools like chkdsk (Windows) or fsck (UNIX).

ANE4047E	There is a read error on '<i>file-namefile-namefile-name</i>'. The file is skipped.
-----------------	--

Explanation

The specified *file-name* was skipped during backup archive because the file could not be read.

If you are performing a JFS2 snapshot based operation, it is possible that the snapshot was not

large enough to contain all the changes made to the filesystem after the snapshot was created. This could cause the snapshot to become invalid thereby preventing IBM Spectrum Protect client from reading the snapshot.

System action

IBM Spectrum Protect skipped the file.

User response

Check your system to ensure that it is operating properly.

If you are performing a JFS2 snapshot based operation, please use the default snapshotcachesize of 100% and ensure that the volume group has sufficient disk space to allocate snapshots at least as large as the file system and retry the operation.

ANE4048W	LAN-Free connection failed.
-----------------	------------------------------------

Explanation

ENABLELANFREE option is set to YES for this session, but an attempt to establish LAN-Free connection failed.

System action

The IBM Spectrum Protect client will failover to non LAN-Free support.

User response

Review the IBM Spectrum Protect error.log for LAN-Free failures. Check your LAN-Free setup and verify that all components are working properly.

ANE4049I	Established LAN-Free connection.
-----------------	---

Explanation

ENABLELANFREE option is set to YES for this session and the IBM Spectrum Protect client successfully established LAN-Free connection with server, after the LAN-Free connection was broken.

System action

The IBM Spectrum Protect client will communicate with the server via LAN-Free.

User response

Review the IBM Spectrum Protect error.log for LAN-Free errors. Check your LAN-Free setup and verify that all components are working properly.

ANE4050W **Scheduled action '*schedule-action*' did not execute for schedule '*schedule-name*' as the IBM Spectrum Protect administrator has been disabled from executing the scheduled action on the client.**

Explanation

One or more of the client options - schedcmddisabled, srvprepostscheddisabled, srvprepostsnapdisabled, restrtscheddisabled, have been set to YES on the client thereby preventing the IBM Spectrum Protect administrator from executing one of the following scheduled actions on the client - preschedule, postschedule, presnapshot, postsnapshot or scheduled operating system commands, restore or retrieve operations.

System action

The scheduled operation will not be executed and a message will be logged to IBM Spectrum Protect Server indicating this.

User response

None required.

ANE4051E **Error processing '*filespace namepath-namefile-name*': The decryption option is in effect, but the user ID under which back-up or archive is being run is not authorized to decrypt this encrypted-file-system (EFS) file.**

Explanation

The file being processed is encrypted by an encrypted file system (EFS). The option is specified to back-up or archive the file in decrypted form. The user ID under which the back-up or archive is being run does not have decryption rights for this file.

System action

The file is skipped.

User response

There are three possible ways to make decryption work:

- Re-encrypt the file under the encryption key of a group to which both the owner and the back-up/archive user IDs belong

- Add the back-up/archive user ID to the list of users authorized to decrypt this file
- Run the back-up or archive under the owner's user ID, if possible

ANE4052E **Error processing '*filespace namepath-namefile-name*': Encrypted-file-system (EFS) file cannot be restored, because file system does not support restore from the raw-EFS back-up data, or possibly because the restore function does not have write access to the directory.**

Explanation

The file being processed is encrypted by an encrypted file system (EFS). The file was backed up in the raw encrypted format. Either the target filesystem does not support the encrypted format, or restore does not have write access to the directory to which the file is to be restored.

System action

The restore is terminated.

User response

- The file cannot be restored to this location if the file system is not the AIX Enhanced Journaled File System (JFS2)
- If the file is JFS2 but EFS is not enabled, then EFS must be enabled before the file can be restored
- If the user ID under which restore is being run does not have write permission for the directory, the permissions must be changed or the restore must be run under a different user ID

ANE4053E **Error processing '*filespace path filename*': The file cannot be restored because the file system or operating system does not support the Encrypting File System (EFS) data.**

Explanation

The specified object was backed-up as raw Encrypting File System (EFS) data. The client is trying to restore or retrieve the object to a destination that does not support the EFS data. The location might not support the EFS data for one of the following reasons:

- The operating system does not provide the support, or is a release that does not include the support

- EFS support has not been activated on the operating system
- The target file system does not support the EFS data

System action

The object is not restored or retrieved. Processing continues with the next object.

User response

If this file must be restored, restore it to an AIX operating system environment supporting EFS data.

ANE4054E **Error processing 'filespace namepath-namefile-name': The encryption key is not loaded.**

Explanation

The file being processed is encrypted by an encrypted file system (EFS). The option is specified to backup or archive the file in decrypted form. The encryption key, required to decrypt the file, is not loaded in the kernel keyring.

System action

The file is skipped.

User response

There are three situations in which this problem can occur:

- You just performed initial activation of EFS on the AIX system, and have not logged out. AIX does load the keys for the session running at the time of initial activation. Solution: Logout and login again.
- The login password has been changed recently, and you normally run with the EFS password the same as the login password. AIX does not automatically change the EFS password when you change the login password. Solution: Issue 'efskeymgr -n' to set the EFS password to be the same as the login password.
- You need to run the decrypting backup when the EFS password is different from the login password. Solution: Issue 'efskeymgr -o ksh' to launch a new shell with the keys loaded. AIX will prompt you for the EFS password as you launch the shell. Run the backup from the new shell.

ANE4055E **Cannot update file space 'filespace-name': the file space version on the IBM Spectrum Protect server is not compatible with this client**

Explanation

The file space on the IBM Spectrum Protect server is not compatible with this client. This is caused by performing a backup or archive operation with a client and then using a down-level client and attempting a backup or archive operation targeting the same file space.

This problem occurs specifically after a Windows or AIX client V6.1 or higher performs a backup or archive operation and then a subsequent backup or archive operation is attempted with a client V5.5 or lower.

System action

Processing stops.

User response

Use the correct level of the client.

ANE4056E **Object 'object-name' returned by the IBM Spectrum Protect server has a high-level name that exceeds the maximum length of 6000 characters. The file or directory cannot be processed.**

Explanation

The IBM Spectrum Protect server returned information about a backup or archive version with a high level name that exceeds 6000 characters. The high-level name is the directory path that contains the object (file or directory).

This message is displayed when all of the following conditions are true:

- The object was backed up or archived by a version 6.1 or lower IBM Spectrum Protect client.
- The object was backed up or archived to a version 5.5 or lower IBM Spectrum Protect server.
- IBM Spectrum Protect client version 6.2 or higher is attempting to perform an operation that causes the IBM Spectrum Protect server to return information about this object to the client. Note: During incremental backup, the server returns information to the client about active backup versions which is used to determine which files have changed.

Beginning with IBM Spectrum Protect server version 6.1, the maximum high level name length was reduced from 8192 characters to 6000 characters. Objects with high level names that exceed 6000 characters are not supported for backup or archive. Beginning with IBM Spectrum Protect backup-archive client version 6.2, the maximum high level name length was similarly reduced.

System action

The file or directory specified in the message is skipped. Processing will continue with the next object.

User response

Contact your IBM Spectrum Protect server administrator for further assistance.

ANE4057W	Unable to process object 'fs' with nested file system mounted on it during snapshot based backup.
-----------------	--

Explanation

Snapshot based backup of objects with mounted file systems on them are not supported.

System action

The backup operation continues without specified object.

User response

To prevent this behaviour unmount file system from specified object and retry the operation.

ANE4058I	A write failure occurred while attempting to save node replication failover values to the options file.
-----------------	--

Explanation

A write failure is often a result of insufficient access permissions to the options file, but could also be caused by the lack of available disk space. The replication server connection information can not be saved and failover will not be possible.

System action

The operation failed.

User response

Check the local disk for possible causes of the write error, and check to see that sufficient access to the options file is configured.

ANE4059I	The option USEREPLICATIONFailover is set to NO. The node will not fail over to the failover server
-----------------	---

Explanation

This option will prevent the node from connecting to the replication server in the event of a failure of the primary server.

System action

The client will not connect to the primary server and processing stops.

User response

No response is required.

ANE4061I	Connected to failover server <i>failover server</i>; in fail over mode. Home server is: <i>home server</i>;
-----------------	--

Explanation

The node is configured for replication and has successfully connected to the failover server. This message is to notify the server administrator that a node has connected to the failover server in fail over mode.

System action

Processing continues.

User response

None.

ANE4063W	IBM Spectrum Protect application protection cannot copy the application metafile '<i>App-Metadata-File-Name</i>' from the following VM: '<i>VM-Name</i>'. Individual database restore from this backup is not supported. Check health of application writers and databases
-----------------	---

Explanation

The application metafile was not found on the guest machine.

System action

The operation completes. However, the application metafile was not copied.

User response

Make sure that the application VSS writers are running on this guest machine, and the application database is

in the state to allow the backup. For Exchange check that databases are mounted. For SQL check databases are online. Then try the operation again.

ANE4064I **Restoring vCloud Director vApp 'vapp name' from Organization VDC 'org vdc name' from organization 'org name' Target vApp name is 'restored vapp name'**
Restore VAPP command started.
Total number of vApps to process: vapps num to restore

Explanation

The restore vApp operation completed.

System action

This message is for informational purposes only.

User response

No action is required.

ANE4065E **Proxy rejected: data mover node 'dm node' has not been granted proxy authority for target node 'target_node', associated with Organization vDC 'OVDC name' of Organization 'Org Name'.**

Explanation

The operation requires that a proxy access for the data center node is granted to the data mover node.

System action

Operation is canceled for the specified vApp.

User response

Run configuration wizard or configuration editor to configure proper nodes relationship.

ANE4066I **Snapshot operation attempt x of y for the guest virtual machine 'VM' failed using "sType" snapshot. Reattempting snapshot with "sType2" snapshot.**

Explanation

The snapshot operation has failed. A snapshot retry operation has been scheduled.

System action

Retrying snapshot.

User response

Check the error log for any other messages that might indicate a reason for the failure. Correct any problems and try the operation again.

ANE4067E **Snapshot operation attempt x of y for the guest virtual machine 'VM' failed using "sType" snapshot. Backup failed.**

Explanation

All snapshot retry attempts of the guest virtual machine failed.

System action

Processing stops.

User response

Check the error log for any messages that indicate a reason for the failure. Correct any problems and try the operation again. If the problem persists, search the IBM Spectrum Protect Support web site (<http://www.ibm.com/software/sysmgmt/products/support/IBMTivoliStorageManager.html>) for known solutions.

ANE4068I **Restored virtual machine 'VM' was backed up using a "VMware Tools with file system quiescing and application quiescing disabled" snapshot. This is equivalent to a "crash-consistent" backup.**

Explanation

The restored virtual machine was backed up using a "VMware Tools with file system quiescing and application quiescing disabled" snapshot. Application Protection feature is not available.

System action

Restore of the VM continues.

User response

None

ANE4069E **The Windows domain credentials cannot be found. Use the Data**

**Protection for VMware vSphere
GUI configuration editor to set the
Windows domain credentials.**

Explanation

The required Windows domain administrator credentials were not set.

System action

Processing stops.

User response

Set the Windows domain administrator credentials in the Data Protection for VMware vSphere GUI configuration editor.

ANE4070E	Windows domain credentials are incorrect. Verify the credentials and use dsmc SET PASSWORD -type=DOMAIN 'domain\userid' 'password' to update the username and password.
-----------------	--

Explanation

The supplied credentials are incorrect. The system failed to authenticate to the Windows domain using these credentials.

System action

Processing stops

User response

Use dsmc SET PASSWORD -type=DOMAIN 'domain\userid' 'password' to update the username and password. And then retry the operation.

ANE4071E	'VM-Name' cannot be restored because it was backed up with a newer version of the client.
-----------------	--

Explanation

The client version that attempted to restore the virtual machine is earlier than the client version that backed up the virtual machine. The virtual machine cannot be restored with an earlier client version.

System action

The virtual machine is not restored. Processing continues with the next virtual machine.

User response

Upgrade the client to a version that is compatible with the client version that backed up the virtual machine.

ANE4072E	Error processing 'filespace namepath-namefile-name': unable to create symbolic link; a file or directory exists with the same name as the symbolic link
-----------------	--

Explanation

IBM Spectrum Protect tried to create a symbolic link, but is unable to because a file or directory exists that has the same name as the symbolic link.

System action

Processing stops.

User response

Remove the file or the directory that has the same name as the symbolic link. Refer to the last restore/retrieve operation.

ANE4073W	Snapshot operation attempt x of y for the guest virtual machine 'VM' failed using "sType" snapshot. Reattempting snapshot with "sType2" snapshot.
-----------------	--

Explanation

The snapshot operation has failed. A snapshot retry operation with different snapshot type has been scheduled.

System action

Retrying snapshot with different snapshot type.

User response

Check the error log for any other messages that might indicate a reason for the failure. Correct any problems and try the operation again.

ANE4077E	File 'filespace namepath-namefile-name' is encrypted by Microsoft EFS and contains at least one sparse data stream. The operating system does not support restore for this file so it is not backed up or restored.
-----------------	--

Explanation

An error in the Microsoft Windows API prevents successful restore of files that meet the following conditions:

- The file is encrypted by Microsoft Encrypting File System (EFS) at the time it was backed up
- The file includes at least one data stream (alternate "named" stream or unnamed stream) that is sparse
- The operating system is any edition of Microsoft XP, Microsoft Windows Server 2003, or Microsoft Windows Server 2003 R2

Because the file cannot be restored, IBM Spectrum Protect does not back it up. The problem is documented by Microsoft at <http://support.microsoft.com/kb/2525290>.

System action

The file is not backed up or restored. Processing continues with the next object or ends if there are no further objects.

User response

If this message is issued during a backup operation, you can do the following:

- Disable EFS encryption for the file so that it can be backed up.
- If a backup copy of the file is not necessary, you can exclude it from backup.

ANE4078E	Content file content.spsig is missing, is damaged or failed the signature check.
-----------------	---

Explanation

The file content.spsig is missing. Or the file is damaged or the signature of the file does not match. See client log file for more information.

System action

Processing stops.

User response

Make sure that the data in the Operations Center, such as the client package or Update Manager package, is correct or download the correct version in the Operations Center.

ANE4079E	One or more files failed the signature check.
-----------------	--

Explanation

The signature of one or more files does not match the contents of content.spsig. See the client log file for more information.

System action

Processing stops.

User response

Make sure that the data in the Operations Center, such as the client package or Update Manager package, is correct or download the correct version in the Operations Center.

ANE4081E	Error processing 'filespace-name': file space type is not supported.
-----------------	---

Explanation

The specified file space type is not currently supported by IBM Spectrum Protect on this platform.

System action

The unsupported file system is skipped. Processing continues with the next file system.

User response

Refer to the documentation for information on what file space types are supported.

ANE4083I	New node password has been generated.
-----------------	--

Explanation

The client logged in using administrative id rather than node name. New random node password has been generated and recorded.

System action

Processing continues.

User response

None.

ANE4084E	Error processing 'filespace-namepath-namefile-name': cannot get file status.
-----------------	---

Explanation

While processing the file, the lstat() call set EOVERFLOW error code.

System action

This file will be skipped.

User response

The file is skipped. Processing continues with the next file.

ANE4085I	Assigned '<i>number</i>' objects from previous systemstate backup to the new systemstate backup.
-----------------	---

Explanation

Objects in the previous System State backup have not changed and were assigned to the new System State backup.

System action

Processing continues.

User response

None.

ANE4086W	Failed to assign unchanged objects from previous systemstate backup to the new systemstate backup. Objects will be backed up.
-----------------	--

Explanation

Objects in the previous System State backup have not changed and should be assigned to the new systemstate backup. Due to error assign operation failed and objects will be backed up.

System action

Processing continues.

User response

Retry the operation. If the problem persists, contact IBM Spectrum Protect technical support.

ANE4087E	An attempt to load data for the wizard failed. For more information, please see the log file.
-----------------	--

Explanation

An attempt to load data for the wizard failed as the remote agent is probably unavailable.

System action

Processing stopped.

User response

Check the log for reason for the failure.

ANE4089W	File server <i>file-server-name</i> has been upgraded to Data ONTAP version '<i>version.modifcation.submodificati on</i>'. Perform a full incremental backup by specifying option createnewbase=migrate as soon as possible.
-----------------	---

Explanation

The file server has been upgraded to a version that supports unicode file names for incremental backup using snapshot difference. Perform a full incremental in order to backup any files with unicode names that may have been skipped by the previous version of the IBM Spectrum Protect client.

System action

Processing continues.

User response

Perform a full incremental by specifying the command line option createnewbase=migrate with the snapdiff option as soon as possible.

ANE4090I	File server <i>file-server-name</i> has been upgraded to Data ONTAP version '<i>version.modifcation.submodificati on</i>'. Perform a full incremental backup by specifying option createnewbase=migrate as soon as possible.
-----------------	---

Explanation

The file server has been upgraded to a version that supports unicode file names for incremental backup using snapshot difference. Perform a full incremental in order to backup any files with unicode names that may have been skipped by the previous version of the IBM Spectrum Protect client.

System action

Processing continues.

User response

Perform a full incremental backup by specifying the command line option `createnewbase=migrate` with the `snappdiff` option as soon as possible.

ANE4092E **Data mover platform is not supported for instant access/restore operations.**

Explanation

The instant access/restore operation failed.

System action

The instant access/restore operation failed. The reason for the failure is unsupported platform.

User response

The instant access/restore operation should be performed from a supported data mover platform.

ANE4099E **The system volume cannot be identified. Therefore the system state cannot be backed up.**

Explanation

The system volume contains the hardware-specific system state files that are needed to start Windows, such as `Ntldr`, `Boot.ini`, `Ntdetect.com` or `Bootmgr`. If the system volume cannot be identified, then these files cannot be backed up. Therefore it is not possible to back up the system state.

System action

Systemstate backup stops.

User response

Try the operation again. If the problem persists, obtain a service trace that captures the problem and contact IBM technical support for additional assistance. Your IBM Spectrum Protect administrator can help you configure the trace.

ANE4137E **Error processing 'filespace namepath-namefile-name': exceeded maximum number of links allowed**

Explanation

Link cannot be restored or retrieved because the destination file system has exceeded maximum number of links allowed.

System action

The client prompts you for action:

- Skip this object
- Abort the action

User response

Select the appropriate action for this object. Restore or retrieve the link to another file system.

ANE4148E **Full VM backup of Virtual Machine 'vmname' failed with RC rc**

Explanation

The Full VM backup of virtual machine failed.

System action

The full backup of the virtual machine finished with failures. The next virtual machine in the `vm` list will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4150E **Incremental backup of Virtual Machine 'vmname' failed with RC rc**

Explanation

The incremental backup of virtual machine volumes failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the `vm` list will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4151E **Failure mounting Virtual Machine 'vmname'. RC=rc**

Explanation

The VMware failed to mount virtual machine disk.

System action

The backup of the virtual machine can not continue. The next virtual machine in the vmlist will be processed. Refer to dsmerror.log for detailed error message for the reason for the failure.

User response

Refer to dsmerror.log for detailed error message.

ANE4152E	Failure initializing VMware virtual machine environment. RC=rc. Refer to IBM Spectrum Protect error log for detailed error messages.
-----------------	---

Explanation

Failure initializing VMware virtual machine environment. Refer to IBM Spectrum Protect error log for detailed error messages.

System action

The backup can not continue.

User response

Refer to IBM Spectrum Protect error log for detailed messages.

ANE4153E	Hostname could not be found for Virtual Machine 'vmname'
-----------------	---

Explanation

The backup of virtual machine failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4154E	Possible cause Virtual Machine is not running and does not have a static IP address.
-----------------	---

Explanation

The backup of virtual machine failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4155E	The virtual machine 'vmname' was not found on the vSphere server.
-----------------	--

Explanation

The backup of the virtual machine failed because the specified virtual machine name was not found. It is possible that the virtual machine name was entered incorrectly or contains unsupported characters. Only virtual machine names that contain 7-bit ASCII characters are supported, and the operation will fail if the name contains other characters.

System action

The backup of the virtual machine failed. The next virtual machine in the vmlist will be processed. Check the client error log for additional error messages.

User response

Check the local client error log for reason for the failure.

- If the virtual machine name was entered incorrectly, try the operation again with the correct machine name.
- If the virtual machine name contains characters other than 7-bit ASCII characters, either change the virtual machine name so it contains only 7-bit ASCII characters, or do not include the virtual machine for backup operations.

ANE4156E	File level VM backup of virtual machine 'vmname' not supported. File level VM backup not support on non Windows platform guest OS. Platform type: 'platform'.
-----------------	--

Explanation

The backup of virtual machine failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be

processed. The reason for the failure is written to the local client error log.

User response

Back up the virtual machine using the VMBACKUPTYPE=FULLvm option.

ANE4159E	Backup of Virtual Machine 'vmname' failed. rc=rc.
-----------------	--

Explanation

The backup of virtual machine failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4160E	Proxy Rejected: Proxy authority has not been granted to Agent Node: 'agent_node' for Target Node: 'target_node'.
-----------------	---

Explanation

The backup of virtual machine failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is the node has not been granted proxy authority to access the node named by the backup proxy node. The IBM Spectrum Protect administrator must first grant proxy authority.

User response

The IBM Spectrum Protect server administrator must grant proxy authority for this node. See the administrator command "Grant Proxynode".

ANE4161E	Duplicate virtual machine name 'vmname' was detected in the same backup operation. Backup of virtual machine 'vmfullname' can not continue without a unique object name.
-----------------	---

Explanation

The backup of virtual machine failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Choose a unique name for the virtual machine.

ANE4162E	The virtual machine 'virtual-machine-name' has not been previously backed up.
-----------------	--

Explanation

The specified virtual machine has not been previously backed up, so can not be specified for restore.

System action

The specified virtual machine is skipped, and the next virtual machine in the restore list is processed.

User response

Verify the virtual machine name to be restored, and re-try the operation.

ANE4164W	Compression is currently enabled, but the virtual machine backup for 'virtual-machine-name' is not compressed because client-side deduplication is not being used.
-----------------	---

Explanation

Compression can only be used with virtual machine CTL and Data files when the files are stored in a storage pool that is enabled for client-side deduplication. This message is issued when the client is configured for compression and virtual machine CTL or Data files are directed to a storage pool that is not enabled for client-side deduplication.

System action

Backup continues, and data is not compressed.

User response

If you intend to compress virtual machine CTL and Data files, then update your IBM Spectrum Protect configuration so that both types of files

are directed to storage pools that are enabled for client-side deduplication. If you intend to compress virtual machine Data files but not CTL files, then update your IBM Spectrum Protect configuration so that the Data files are directed to a storage pool that is enabled for client-side deduplication. Set the VMSKIPCTLCOMPRESSION to YES in your client options file. If you do not intend to use compression, then set COMPRESSION NO in your client options file.

ANE4165E **Creating a Virtual Machine, but the hostname '*virtual-machine-name*' was not found.**

Explanation

The Virtual Machine being creating must have a valid hostname to be created.

System action

Check the virtual machine hostname specified for correctness.

User response

Correct the virtual machine hostname specified and retry the restore.

ANE4166E **Creating a Virtual Machine, but the datacenter '*virtual-machine-name*' was not found. The name may be incorrect or may be located in a VMware folder and require the folder name such as vmfolder/dcname.**

Explanation

The Virtual Machine being created must have a valid datacenter to be created.

System action

Processing stops.

User response

Check the virtual machine datacenter specified for correctness. If the datacenter is contained in a folder then the full datacenter name, complete with the folder path, must be specified, such as vmfolder/dcname.

ANE4167E **Creating a Virtual Machine, but the datastore '*virtual-machine-name*' was not found.**

Explanation

The Virtual Machine being creating must have a valid datastore to be created.

System action

Check the virtual machine datastore specified for correctness.

User response

Correct the virtual machine datastore specified and retry the restore.

ANE4168E **VMware has reported an error via their SOAP interface. On the Detailed Status Report panel, view the last error message reported. Also check the error log for more information about the problem that occurred.**

Explanation

The command to VMware failed to complete. The error returned is displayed on the Restore or Backup summary panel under the Last Error Message section.

System action

An error occurred, and the operation failed.

User response

Check the reported error and correct the problem. Usually the reason for the error is a user-supplied value which is not valid for the operation.

ANE4169E **A write failure occurred on the local disk proxy used to temporarily store the virtual machine virtual disk information. The write failure can be caused by the lack of available disk space on the drive used to store this information. The VMBACKDIR option can be used to assign a different disk location for this purpose. Check the drive being used and ensure that there is enough space available for this operation.**

Explanation

There was a write error from the local disk used to store the virtual machine virtual disk information. Usually the write error is due to lack of disk space, lack

of write permissions, or some similar problem with the local disk. The VMBACKDIR option can be used to assign a different disk location if the local drive does not have enough free space for the operation.

System action

A disk write error occurred, and the operation failed.

User response

Check the local disk for possible causes of the write error, and use the VMBACKDIR option to assign another disk if needed.

ANE4170E	Can not create a Virtual Machine on VMware release 'release-version-target' which was backed up from VMware release 'release-version-source'.
-----------------	--

Explanation

The Virtual Machine being created was backed up from a version of VMware which is not compatible with the target VMware release version being used for the restore.

System action

Processing stops.

User response

Restore the Virtual Machine to a VMware system which is compatible with the level from which the Virtual Machine was backed up.

ANE4174E	Full VM backup of VMware Virtual Machine 'vmname' failed with RC=rc mode=full_or_incr, target node name='target_node_name', data mover node name='data_mover_node_name'
-----------------	--

Explanation

The Full VM backup of virtual machine failed. If the virtual machine (VM) name contains the word AGGREGATE, the statistics that are shown represent the total value of all VM guests that are backed up per data mover.

System action

The full backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4177E	Full restore of VMware virtual machine 'vmname' failed with RC=rc, mode='restore_or_revert', target node name='target_node_name', data mover node name='data_mover_node_name'
-----------------	--

Explanation

The full restore of the virtual machine failed.

System action

The full restore of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4179I	IBM Spectrum Protect application protection did not truncate the Microsoft SQL Server logs on VM 'VM'.
-----------------	---

Explanation

The SQL server logs were not truncated because the following option was specified for this virtual machine: INCLUDE.VMTSMVSS vname OPTIONS=KEEPSQLLOG

System action

The operation completes.

User response

Remove the OPTIONS=KEEPSQLLOG option to enable truncation of the SQL logs when a backup completes.

ANE4187W	CPU and Memory Resource Allocation configuration settings cannot be restored when the IBM Spectrum Protect data mover node is connected directly to a Virtual Center managed ESX/ESXi host. These settings have been skipped.
-----------------	--

Explanation

The VMware vStorage APIs do not support the restore of CPU and Memory Resource Allocation configuration settings when connected directly to an ESX/ESXi host that is managed by a Virtual Center.

System action

CPU and Memory Resource Allocation configuration settings are skipped. Processing continues.

User response

Virtual machine CPU and Memory Resource Allocation configuration settings will be restored when the IBM Spectrum Protect data mover node connects directly to a vCenter Server. Modify the VMHOST to connect the IBM Spectrum Protect data mover to a vCenter Server.

ANE4191E	Restore VM operation failed using 'san' transport mode. In some cases switching from SAN to network-based VM restores can be successful.
-----------------	---

Explanation

Restore VM operations that fail using SAN transport mode can often be successful over a LAN path. If a restore vm operation fails using the 'SAN' transport mode, set the client option VMVSTORTTRANSPORT to "nbd:nbdssl" and try the restore vm operation again.

System action

Restore VM operation failed using 'san' transport mode. Restore may be successful using 'nbd:nbdssl' transport modes.

User response

Restore VM operation failed using 'san' transport mode. In some cases network-based VM restores can be successful when using 'nbd' or 'nbdssl' transport modes. The VMVSTORTTRANSPORT option can be used to restrict the IBM Spectrum Protect client to use only the specified transport modes.

ANE4193E	vApp 'vApp name' cannot be processed because data mover 'dm node' cannot connect to the target node 'target_node'.
-----------------	---

Explanation

The operation requires that a proxy access for the data center node is granted to the data mover node.

System action

Operation is canceled for the specified vApp.

User response

Look for errors in error log and correct any problems. Run configuration wizard or configuration editor to ensure proper nodes configuration.

ANE4194E	Encryption is currently enabled, but is not supported for incremental forever backups of virtual machines (-MODE=IFFULL or -MODE=IFINCREMENTAL) .
-----------------	--

Explanation

Client encryption of virtual machine incremental forever backups (-mode=IFFULL or -mode=IFINCREMENTAL) is not supported. In order to avoid the unintentional storage of unencrypted data on the server, the backup operation stops.

System action

The virtual machine backup stops.

User response

Remove the encryption options for this operation and run it again. You can use Secure Sockets Layer (SSL) encryption to encrypt the data over the network. If the backup data must be encrypted in IBM Spectrum Protect storage pools, use an alternative backup method such as full and incremental backups (-mode=FULL and -mode=INCREMENTAL), or in-guest backups.

ANE4195E	The target node for Organization VDC 'OrgVDC name' in Organization 'Org name' was not found. As a result, vApp 'vApp name' cannot be backed up.
-----------------	--

Explanation

Either the IBM Spectrum Protect node for the specified organization VDC was not found on the IBM Spectrum Protect server, or information about the Organization VDC node was not found in the Provider VDC node.

System action

Back up of the specified vApp stops. Processing continues to the next vApp.

User response

Go to the Configuration page and click 'Run the Configuration Wizard' to verify that all required IBM Spectrum Protect nodes are registered on the IBM Spectrum Protect server. If required, register a new data mover node. Make sure that the organization VDC belongs to the provider VDC that this data mover node protects.

ANE4199W	File '<i>file name</i>' is not backed up as part of the system state because cluster disk '<i>volume name</i>' is not accessible.
-----------------	--

Explanation

The indicated file or directory was returned by VSS as part of the backup file list of the writer. However, the cluster disk where the file is located is not accessible. The reasons for this problem can be that the cluster disk is offline or belongs to another node.

System action

The file is not backed up. Processing continues.

User response

This problem is documented in Microsoft knowledge base topic 980794 <http://support.microsoft.com/default.aspx?scid=kb;EN-US;980794>. The topic includes a hotfix. With the hotfix, you can specify a registry key that contains a list of one or more files to be excluded from VSS enumeration. IBM Spectrum Protect does not back up files that are not enumerated by VSS. If the volume is brought online to the node performing the system state backup, then it cannot be backed up. You must remove the volume from the registry key and restart the system before you can back up the volume. If you do not want to implement the hotfix for this problem, IBM Spectrum Protect continues to issue this message.

ANE4200E	The virtual machine '<i>vmname</i>' could not be backed up because the data usage of datastore '<i>datastore</i>' exceeded the datastore threshold of <i>percentused</i> percent.
-----------------	--

Explanation

The data usage of the datastore used by the virtual machine exceeds the threshold set by the **VMDATASTORETHRESHOLD** option.

System action

The virtual machine is not backed up.

User response

Reduce the data usage of the datastore or increase the threshold in the **VMDATASTORETHRESHOLD** option. Then, back up the virtual machine again.

ANE4202E	The Deployment Manager failed to install language pack: <i>language pack name</i>. The Microsoft Installer error code was <i>error code</i>.
-----------------	---

Explanation

The previous language pack has been uninstalled, and the installation of the new language pack failed.

System action

Processing continues.

User response

For more information about Windows installer error messages, go to the Microsoft Developer Network (MSDN) technical library at <http://msdn.microsoft.com/en-us/library> and search on "Windows Installer Error Messages".

Check the install log on the client computer.

ANE4204E	The Operating System of the client computer: '<i>os name</i>' is not supported by the target version: '<i>target version</i>'
-----------------	--

Explanation

The operating system level of the client computer is no longer supported by the target level.

System action

Processing stops.

User response

Check the release documentation for information on supported operating system levels.

ANE4206E	The Deployment Manager received an error while extracting from installation image: <i>image name</i>.
-----------------	--

Explanation

The installation image might be missing, corrupted, or there might be insufficient disk space on the client computer.

System action

Deployment Manager stops.

User response

Make sure that there is sufficient disk space on the client computer.

Make sure that all of the Windows self extracting client images on the client computer are valid.

ANE4207E	The Deployment Manager was unable to initiate the final connection between the server and the updated backup-archive client.
-----------------	---

Explanation

After the automatic client deployment, the dsme query session command from the updated backup-archive client was not successful.

System action

The Deployment Manager process ends.

User response

Log on to the client computer and check the backup-archive client error log.

ANE4210E	The Deployment Manager failed to install package: '<i>client package name</i>'. The Microsoft Installer error code was '<i>system architecture</i>'
-----------------	--

Explanation

The previous client package has been uninstalled, and the installation of the new client package failed.

System action

Processing stops.

User response

Check the technote for Microsoft Installer error code description: <http://www-01.ibm.com/support/docview.wss?uid=swg21050782&rs=663>

Check the install log on the client computer.

ANE4212E	The Deployment Manager failed to restart service: <i>servicename</i>
-----------------	---

Explanation

After the automatic client deployment, the IBM Spectrum Protect client services failed to start.

System action

Processing stops.

User response

Log on to the client machine and check the backup-archive client error log.

ANE4213E	Automatic restart of the client computer was required because <i>reason</i>
-----------------	--

Explanation

The Deployment Manager determined that the deployment requires restarting the client.

Automatic restart is not enabled. The Deployment Manager process cancels the deployment.

The current client is not uninstalled or updated.

System action

Deployment Manager cancels the client deployment and stops

User response

Reschedule the client deployment.

ANE4215E	The automatic deployment path from the current client code version '<i>source version</i>' to the client package version '<i>target version</i>' is not supported.
-----------------	---

Explanation

None

System action

Processing stops.

User response

Refer to the Backup-Archive Client documentation in the information center.

Reschedule the client deployment with an appropriate target level.

ANE4217E **The Deployment Manager received an error while setting up the client API. The standard API function being invoked is *API setup function name*.**

Explanation

The Deployment Manager process failed when setting up the client API.

System action

Processing stops.

User response

Check the error log on the client computer.

ANE4218E **The Deployment Manager received an error while initializing the client API. The standard API function being invoked was *API setup function name*.**

Explanation

The Deployment Manager process failed when initializing the client API.

System action

Processing stops.

User response

Check the error log on the client computer.

ANE4219E **The Deployment Manager received an error while creating a pipe for the standard output of the child process.**

Explanation

The Deployment Manager failed to create a pipe for the standard output of the child process.

System action

Processing stops.

User response

Check the error log on the client computer.

ANE4220E **The Deployment Manager is unable to determine if IBM Spectrum Protect processes are still running.**

Explanation

The Deployment Manager could not determine whether all IBM Spectrum Protect processes were shut down successfully.

System action

Reschedule with automatic restart (autoreboot) enabled.

User response

None

ANE4221E **The architecture of the package: '*package architecture*' does not match the current client: '*system architecture*'**

Explanation

The setup script was unable to retrieve the matching package from the server.

System action

Processing stops.

User response

Ensure that the client packages for all architectures are available on the server.

ANE4222E **The Deployment Manager is unable to read information in file: *file name*.**

Explanation

Deployment Manager failed to open a file containing required system information.

System action

Processing stops.

User response

Check the error log on the client computer.

ANE4227E **The Deployment Manager failed to install package: '*client package name*'. The client computer is**

out of disk space. The Microsoft Installer error code was 'error code'

Explanation

The previous client package has been uninstalled, and the installation of the new client package failed because the client computer is out of disk space.

System action

Processing stops.

User response

Check the technote for Microsoft Installer error code description: <http://www-01.ibm.com/support/docview.wss?uid=swg21050782&rs=663>

Check the install log on the client computer.

ANE4228E	The Deployment Manager failed to install language pack: '<i>language pack name</i>'. The client computer is out of disk space. The Microsoft Installer error code was 'error code'
-----------------	---

Explanation

The previous language pack has been uninstalled, and the installation of the new language pack failed because the client computer is out of disk space.

System action

Processing continues.

User response

Check the technote for Microsoft Installer error code description: <http://www-01.ibm.com/support/docview.wss?uid=swg21050782&rs=663>

Check the install log on the client computer.

ANE4229I	The client computer is required to restart to complete the new Backup-Archive client installation.
-----------------	---

Explanation

The deployment of the new backup-archive client will not be complete until the client computer is restarted. The restart is scheduled to happen immediately after all language packs are deployed.

System action

The Deployment Manager process continues. The client computer will be shut down and restarted after all language packs are deployed, or immediately if there are no language pack to install.

User response

None

ANE4230I	The client computer will be shut down and restarted immediately.
-----------------	---

Explanation

The Deployment Manager needs to restart the client computer to complete the client deployment. It is possible the other messages provide details of the deployment.

System action

The Deployment Manager process continues. The client computer will be shut down and restarted immediately after all language packs are deployed, or immediately if there are no language pack to install.

User response

None

ANE4232E	Self-extracting installation image: <i>image name</i> cannot be found.
-----------------	---

Explanation

The Deployment Manager could not find the required installation image.

System action

Processing stops. Client deployment will be cancelled.

User response

Check the server's activity log or the scheduler log on the client computer. Reshcedule the client deployment.

ANE4234E	The deployment for language packs failed.
-----------------	--

Explanation

The Deployment Manager failed to install one or more language packs. It is possible the other messages provide details of the installation.

System action

The Deployment Manager process continues.

User response

Check the error log and installation on the client computer. Identify the language packs that failed to install and manually deploy them.

ANE4235I	The deployment manager cannot log events to the server.
-----------------	--

Explanation

The Deployment Manager is unable to log events to the server. It is possible the other messages provide details of the communications.

System action

The Deployment Manager process continues. Events will be logged locally on the client machine only.

User response

Check network connection and the error log on the client computer.

ANE4242E	The setup script encountered a warning or error while retrieving the client package for the <i>architecture</i> architecture. The error level is <i>error level</i> error level.
-----------------	---

Explanation

It is possible that the client package is not available on the server.

System action

Processing stops.

User response

Ensure that client packages for all architectures are available on the server. Check the backup-archive client error log for more detailed error messages.

ANE4248E	The client is already at the target level: <i>target version</i>.
-----------------	--

Explanation

Processing stopped because the automatic client deployment feature does not support the installation of a client to a workstation that is already at its target level.

System action

Your current backup-archive client is not affected.

User response

Refer to the Backup-Archive Client documentation in the information center.

Reschedule the client deployment with an appropriate target level.

ANE4251W	<i>writername</i> file '<i>filename</i>': not found.
-----------------	---

Explanation

The indicated VSS writer file or directory was returned by VSS as part of the backup file list of the writer. However, the object does not exist on the disk.

System action

Processing stops if SKIPMISSINGSYSWFILES option is set to NO. Processing continues if SKIPMISSINGSYSWFILES option is set to YES.

User response

Verify that this file can be skipped during system state backup.

ANE4252W	<i>architecture, schedule-name, domain-name</i> : The client deployment was not completed pending the restart of the client computer. The deployment manager did not restart the client computer automatically because the AUTODEPLOY option was set to NOREBOOT.
-----------------	--

Explanation

The previous client has been uninstalled, and the installation of the new client was not completed pending the restart of the client computer. The architecture of the client, schedule name, and domain name are identified at the beginning of the message text.

System action

The Deployment Manager process completes.

User response

Manually restart the client computer as soon as possible.

ANE4253E	There was not enough disk space on the client computer. Required space: <i>package space</i> bytes; available space: <i>system space</i> bytes.
-----------------	--

Explanation

The deployment manager determined there was insufficient free disk space for the client deployment.

System action

Processing stops.

User response

Free up required disk space and reschedule the client deployment.

ANE4254E	The deployment manager detected an HSM client on the workstation that it needs to deploy the Backup-Archive client to.
-----------------	---

Explanation

An attempt was made to deploy the Backup-Archive client to a workstation that already has the HSM client installed. The Backup-Archive client cannot be deployed to a workstation that has the HSM client.

System action

Processing stops.

User response

Uninstall the HSM client and reschedule the Backup-Archive client deployment.

ANE4255E	There is not enough memory for the deployment manager to create the system information object
-----------------	--

Explanation

The system information object could not be created because there is not enough available RAM to temporarily write the data into.

System action

Processing stops.

User response

Close all unneeded applications on the client workstation and reschedule the deployment.

ANE4256E	The DSMI_DIR environment variable is not defined.
-----------------	--

Explanation

The deployment manager cannot initiate a connection to the server because the DSMI_DIR environment variable is not set. This error can occur if the deployment manager is started without using the client scheduler.

System action

Processing stops.

User response

Read the available documentation to determine how to use the client scheduler to create a client deployment task.

ANE4257E	The deployment manager cannot parse information in file: <i>file name</i>.
-----------------	---

Explanation

The deployment manager could not parse or extract the required information from the specified file.

System action

Processing stops.

User response

Check the error log file on the client workstation.

ANE4258E	The deployment manager received the Windows "OpenSCManager failed" error message.
-----------------	--

Explanation

The deployment manager could not connect to the Windows service control manager to start the client scheduler. In general, this error occurs because the user who is initiating the task does not have sufficient authority.

System action

Processing stops.

User response

Ensure that the user who starts the client scheduler has administrative privileges.

ANE4259E	The client scheduler is not started as a root user.
-----------------	--

Explanation

The client scheduler requires root user privileges to upgrade the client code.

System action

Processing stops.

User response

Log in as root and start the client scheduler.

ANE4260E	The installation file system is not writeable.
-----------------	---

Explanation

The deployment manager cannot write to the installation file system.

System action

Processing stops.

User response

Check the installation file system permissions. It is possible that the current client node runs in a virtualized environment using the client code installed in a shared storage of the physical environment. Reschedule the client deployment with the client node in the physical environment.

ANE4261E	The deployment manager cannot upgrade the Backup-Archive Client.
-----------------	---

Explanation

The Backup-Archive Client cannot be upgraded because either the current location is not the default installation location or the DSM_DIR, DSMI_DIR, DSM_CONFIG and DSMI_CONFIG environment variables are defined with a relative path and not an absolute path.

System action

Processing stops.

User response

Check the installation directory of the current Backup-Archive Client. If the Backup-Archive Client is not installed in the default location, manually upgrade the Backup-Archive Client. If the DSM_DIR, DSMI_DIR, DSM_CONFIG and DSMI_CONFIG environment variables are defined with a relative path, define them with an absolute path and try the client deployment again.

ANE4262E	The preview of the client installation failed.
-----------------	---

Explanation

The deployment manager did not uninstall the current client. The client code is unchanged.

System action

Processing stops.

User response

Check the deployment manager log and trace files on the client workstation for specific issues identified during the preview. Reschedule a deployment after any issues are resolved.

ANE4263E	The deployment manager failed to uninstall the backup-archive client.
-----------------	--

Explanation

The deployment manager received an error while uninstalling the current client.

System action

Processing stops.

User response

Check the deployment manager log and trace files on the client workstation for more details on the error. You might have to manually uninstall the client.

ANE4264E	The deployment manager failed to install the backup-archive client.
-----------------	--

Explanation

The current client was uninstalled and the deployment manager received an error while installing the new client code.

System action

Processing stops.

User response

Check the deployment manager log and trace files on the client workstation for more details on the error. Manully install the new client after the issue is resolved.

ANE4265I	Client deployment options are not specified in the scheduler command or from client services.
-----------------	--

Explanation

The default client options file will be used. The deployment manager might not report the correct server and node information when reporting status.

System action

Processing continues.

User response

Avoid initiating the client deployment directly from the command-line, instead, always start the client scheduler as a Windows service.

ANE4266I	The deployment manager failed to install non-English language pack(s).
-----------------	---

Explanation

The previous packages were uninstalled, and the installation of one or more new language packs were not successful.

System action

Processing continues.

User response

Check the deployment trace file on the client workstation for specific language pack information.

ANE4267I	The deployment manager failed to install the hardware plugin package.
-----------------	--

Explanation

The previous package was uninstalled. The installation of the new hardware plugin package failed.

System action

Processing stops.

User response

Check the deployment trace file on the client workstation.

ANE4268I	The deployment manager failed to install the journal-based backup package.
-----------------	---

Explanation

The previous journal-based backup package was uninstalled. The new journal based backup package installation failed.

System action

Processing stops.

User response

Check the deployment trace file on the client workstation.

ANE4269W	The deployment manager is stopping the scheduler or the CAD processes.
-----------------	---

Explanation

Before deploying the new client, the deployment manager must stop the scheduler and CAD processes. After the deployment, the processes must be restarted.

System action

Processing continues.

User response

The client scheduler is interrupted during the deployment.

ANE4270I	The deployment manager and the new client installation packages were downloaded to directory: <i>file name</i>.
-----------------	--

Explanation

The download directory contains everything required to complete the new client deployment. Deployment log and trace files can be found in the log/ sub-directory.

System action

Processing continues.

User response

Obtain log and trace files from the download directory for problem determination. The files are found within the log/ sub-directory.

ANE4271E	The deployment package is missing one or more required installation image files.
-----------------	---

Explanation

The client deployment package might not have been imported correctly to the server. It is possible that the deployment package is not retrieved completely to the client computer, due to a lack of disk space.

System action

Processing stops.

User response

Ensure that client packages are available on the server and there is sufficient disk space on the client computer. Check the backup-archive client error log file for more detailed error messages.

ANE4272E	The processor type of the package: <i>package processor type</i> does not match the current client: <i>system processor type</i>.
-----------------	--

Explanation

The processor type supported by the client package that you want to deploy does not match the processor type of the workstation that you are trying to deploy the client to. It is not always possible for the deployment manager to connect to the server and report the error.

System action

Processing stops.

User response

Verify that you are using the correct client package for the processor architecture of the computer that you want to upgrade. Then restart the deployment.

ANE4273E	The deployment manager detected a journal based backup (JBB)
-----------------	---

client on the workstation where it needs to deploy the Backup-Archive Client.

Explanation

An attempt was made to deploy the Backup-Archive Client to a workstation that already has the JBB client installed. On some platforms, the Backup-Archive Client cannot be deployed to a workstation that has the JBB client installed.

System action

Processing stops.

User response

Uninstall the JBB client and reschedule the Backup-Archive Client deployment.

ANE4274E	The deployment manager cannot stop the scheduler or the CAD processes.
-----------------	---

Explanation

The deployment manager tried to shut down the Backup-Archive Client scheduler or CAD processes but the Backup-Archive Client might be busy with other tasks.

System action

Processing stops.

User response

Reschedule the Backup-Archive Client deployment.

ANE4275E	The deployment manager cannot restart the scheduler or the CAD processes.
-----------------	--

Explanation

Before exiting, the deployment manager could not restart the Backup-Archive Client scheduler or CAD processes. The deployment manager stopped the processes prior to the client upgrade.

System action

Processing continues.

User response

Log on to the Backup-Archive Client workstation and check the error log file. If you have set environment

variables make sure they are not defined using relative path.

ANE4276E	The deployment manager cannot obtain information about the scheduler or the CAD processes.
-----------------	---

Explanation

The deployment manager needs process information in order to stop and restart the Backup-Archive Client scheduler or CAD processes.

System action

Processing stops.

User response

Log on to the Backup-Archive Client workstation and check the error log file and the deployment manager error log file.

ANE4277E	The target operating system version <i>target operating system</i> does not meet the minimum required version <i>minimum required version</i>
-----------------	--

Explanation

The operating system version is earlier than the version required by the automatic deployment package.

System action

The deployment is canceled.

User response

Ensure that the version being deployed is supported by the target operating system.

ANE4278E	The deployment manager cannot obtain information about the Logical Volume Snapshot Agent (LVSA).
-----------------	---

Explanation

The deployment manager needs to determine whether an LVSA is installed on the client workstation.

System action

Processing stops.

User response

Log on to the Backup-Archive Client workstation and check the error log file and the deployment manager error log file.

ANE4280E	Automatic client deployment is not allowed on the client workstation.
-----------------	--

Explanation

One or more of the running client services include AUTODEPLOY = NO in the option file.

System action

Processing stops.

User response

Change the AUTODEPLOY option on the client and reschedule the client deployment.

ANE4281E	The update manager cannot remove the TIVsmCapi package from non-global zone(s): <i>zone name</i>.
-----------------	--

Explanation

APAR IC57433 prevents the removal of the TIVsmCapi package on Solaris on a sparse-root, non-global zone if uninstalling is done from the global zone.

System action

Processing stops.

User response

Manually uninstall the IBM Spectrum Protect client directly from the non-global zones and reschedule the deployment.

ANE4282E	Sparse-root non-global zone(s) were found with IBM Spectrum Protect Backup-Archive Client that was installed from the non-global zone: <i>zone names</i>.
-----------------	--

Explanation

One or more non-global zones are sharing the /usr file system with the global zone. The IBM Spectrum Protect Backup-Archive Client is installed in the global zone with the -G parameter and also installed manually in the non-global zone(s). You cannot update the IBM Spectrum Protect Backup-Archive Client in the global zone because it will update the version of

GSKit that is shared with the sparse-root non-global zones that are not part of the automatic deployment.

System action

Processing stops.

User response

Manually upgrade the Backup-Archive Client or install it from the global zone without using the -G parameter. This ensures that you have the same version between the global zone and the sparse-root non-global zones, and you can then deploy the client automatically on all such zones.

ANE4283E	There is not enough disk space on <i>path</i> to uncompress GSKit packages. Required space: <i>req_space</i> bytes; available space: <i>avail_space</i> bytes.
-----------------	---

Explanation

The deployment manager determined that there is not enough free disk space to uncompress GSKit packages.

System action

Processing stops.

User response

Free up the required amount of disk space and reschedule the automatic client deployment.

ANE4284E	The deployment is cancelled because an automatic client deployment task was scheduled for a sparse-root, non-global zone that shares the /usr file system with the global zone.
-----------------	--

Explanation

The automatic client deployment task that was attempted is not supported and will be cancelled.

System action

Processing stops.

User response

Install the Backup-Archive Client from the global zone or manually upgrade the Backup-Archive Client.

ANE4285E	The update restore operation to an existing virtual machine '<i>VmName</i>' failed. The virtual machine is not in power off state.
-----------------	---

Explanation

The update restore operation to an existing virtual machine is not supported for a running machine and will be aborted.

System action

Restore aborted.

User response

Turn off the virtual machine and re-run the update restore command.

ANE4290E	Only one virtual machine can be selected for restore.
-----------------	--

Explanation

Restoring multiple virtual machines is not allowed. Only one virtual machine can be selected for restore.

System action

No processing occurs.

User response

Select only one virtual machine for restore.

ANE4291E	Virtual Machine could not be found on VMware server.
-----------------	---

Explanation

The backup of virtual machine failed.

System action

The backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4292E	No virtual machine found.
-----------------	----------------------------------

Explanation

No virtual machine found with name or specified in domain option.

System action

Processing stopped.

User response

Specify a correct VM name or domain option.

ANE4293E	Backup of VMware vApp 'vApp name' in Organization VDC 'Org VDC name' of organization 'Org name' failed.
-----------------	--

Explanation

The vApp backup operation failed. This error message is a summary message and does not contain detailed information.

System action

The configuration information and VMs for the specified vApps are not backed up. Processing continues to the next vApp.

User response

Check the previous messages in the dserror.log file for more details about this vApp .

ANE4295W	The virtual machine 'vmname' was backed up using the Windows VSS system provider. You must manually revert or delete the shadow copy on the restored volumes or you may experience degraded performance and an out-of-space condition.
-----------------	---

Explanation

At backup time, application protection was not able to back up the VM within the 10-second VSS limit. Therefore, the Windows VSS system provider was used. If you are restoring the application, the volume will be automatically reverted. However, if you are restoring the entire VM, you must manually revert or delete the shadow copy.

System action

The virtual machine is restored, including the system provider shadow copy.

User response

Verify that the restore was successful, and the data is not corrupt. If the data is not corrupt, you can delete the shadow copy. However, if the data is corrupt, revert the shadow copy to restore data integrity. You can figure out which shadow copy to delete or revert by looking for the dsmShadowCopyID.txt file in the root directory of each restored volume. Then, use the diskshadow delete or revert command.

ANE4296I	architecture, schedule-name, domain-name: The Deployment Manager process was started successfully. Deployment Manager Version Information: version
-----------------	---

Explanation

The Deployment Manager process was started as a post schedule command. This is the first message from the Deployment Manager. The architecture of the client, schedule name, and domain name are identified at the beginning of the message text.

System action

Deployment Manager continues to process.

User response

None

ANE4297W	architecture, schedule-name, domain-name: Client deployment was completed with warnings:
-----------------	---

Explanation

This is a generic warning message. It is possible the other messages provide details of the deployment. The architecture of the client, schedule name, and domain name are identified at the beginning of the message text.

System action

The Deployment Manager process completes.

User response

Check the warning messages from the server administration center, the server activity log, or error log on the client computer for more information.

ANE4298E	architecture, schedule, new_device_type: The client deployment was cancelled. The
-----------------	--

previous event causing the cancellation is:

Explanation

This is a generic message that the client deployment was cancelled. The Deployment Manager does not uninstall or update the current client. It is possible the other messages provide details of the deployment. The architecture of the client, schedule name, and domain name are identified at the beginning of the message text.

System action

Processing stops.

User response

Check the warning messages from the server administration center, the server activity log, or error log on the client computer for more information.

ANE4299E	<i>architecture, schedule-name, domain-name: The client deployment failed. The previous event causing the failure is: event</i>
-----------------	--

Explanation

This is a generic message that the client deployment failed. It is possible that other messages provide details of the failure. The architecture of the client, schedule name, and domain name are identified at the beginning of the message text.

System action

Processing stops.

User response

Check the warning messages from the server administration center, the server activity log, or error log on the client computer for more information.

ANE4300I	<i>architecture, schedule-name, domain-name: Client deployment was completed successfully.</i>
-----------------	---

Explanation

The Deployment Manager process completes.

System action

Processing stops.

User response

None

ANE4301I	IBM Spectrum Protect detected Microsoft Active Directory Domain Controller on virtual machine 'VM'.
-----------------	--

Explanation

The virtual machine contains Microsoft Active Directory Domain Controller.

System action

IBM Spectrum Protect saved additional information about this virtual machine.

User response

None

ANE4302W	IBM Spectrum Protect failed to detect if Microsoft Active Directory Domain Controller on virtual machine 'VM'.
-----------------	---

Explanation

There was an error while checking if the virtual machine contains Microsoft Active Directory Domain Controller.

System action

IBM Spectrum Protect continues backing up this virtual machine.

User response

Check IBM Spectrum Protect error log for additional information.

ANE4303E	The vCloud Director vApp '<i>vapp-name</i>' has not been previously backed up.
-----------------	---

Explanation

The specified vCloud Director vApp has not been previously backed up, so can not be specified for restore.

System action

The specified vCloud Director vApp is skipped, and the next vApp in the restore list is processed.

User response

Verify the vCloud Director vApp name to be restored, and re-try the operation.

ANE4304I	IBM Spectrum Protect could not detect the IBM Spectrum Protect for Virtual Environments license. Active Directory Domain Controller will not be protected on VM 'VM'.
-----------------	--

Explanation

The virtual machine contains Microsoft Active Directory Domain Controller, but a IBM Spectrum Protect for Virtual Environments license is not detected. The Domain Controller will not be protected.

System action

Install IBM Spectrum Protect for Virtual Environments 7.1 or later to protect Active Directory.

User response

None

ANE4305W	Backup of VMware vApp 'vApp name' in Organization VDC 'Org VDC name' of organization 'Org name' completed. Some VMs were not backed up. mode: 'Incremental Forever - full_or_incr' target node name: 'target_node_name' data mover node name: 'data_mover_node_name' VMs backup status: number of VM backed up out of number of VMs in vApp VMs backed up successfully.
-----------------	--

Explanation

The vApp backup operation completed successfully. However, one or more VMs for the specified vApp were not backed up. These VMs will not be created during the restore operation.

System action

Processing continues to the next vApp.

User response

Check the dsmerror.log file for this vApp for more information about this message. Resolve the problem, then try the operation again.

ANE4308E	Full VM backup of 'hypervisor' Virtual Machine 'vmname' failed with RC=rc mode=full_or_incr, target node name='target_node_name', data mover node name='data_mover_node_name'
-----------------	--

Explanation

The Full VM backup of virtual machine failed.

System action

The full backup of the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4311E	Full VM restore of 'hypervisor' Virtual Machine 'vmname' failed with RC=rc target node name='target_node_name', data mover node name='data_mover_node_name'
-----------------	--

Explanation

The Full VM restore of the virtual machine failed.

System action

The full restore of the the virtual machine finished with failures. The next virtual machine in the vmlist will be processed. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4313I	Rebalance Schedule sched-name Type: balance-type
-----------------	---

Explanation

A rebalance operation was requested for the named schedule. A rebalance can be complete or minimal. A Minimal rebalance is performed automatically at the end of each schedule. You can configure a complete rebalance by using the option settings, VMREBALANCESCHEDULEPERIOD and VMREBALANCESCHEDULEONLY.

System action

The rebalance operation begins.

User response

No action is required.

ANE4319E	Rebalance schedule error occurred while processing the timestamp file.
-----------------	---

Explanation

An error occurred while a tagged schedule was processing a local timestamp file. The timestamp file will be recreated after the next schedule is run.

System action

The schedule completed.

User response

The timestamp file name is based on the schedule name. It has the format "rebalance_timestamp_schedulename.file" Deleting the file may help. The timestamp file will be recreated after the next schedule is run.

ANE4441E	'fs' is a 'fstype' file system, which is not a supported file system type for file backup, image backup or archive.
-----------------	--

Explanation

The specified file system is not supported for any type of backup. IBM Spectrum Protect does not support backup and archive or image backup for this type of volume.

System action

The file system is skipped. Processing continues with the next file system.

User response

Refer to the IBM Spectrum Protect client manual for a complete list of supported file systems.

ANE4442E	'VM-Name' a backup cannot be created because the virtual machine has assigned disk with duplicate disk identifiers.
-----------------	--

Explanation

The client detected that the virtual machine has assigned disk with duplicate disk identifiers. The disk may have been copied. A backup cannot be created on a virtual machine that have duplicate disk identifiers.

System action

The virtual machine is not backedup. Processing continues with the next virtual machine.

User response

Check that the virtual disks has different disk identifiers and update the virtual machine configuration to match any changes to the file system. If the problem persists, contact an administrator of the Hyper-V server.

ANE4443E	'fs' is a CSVFS file system, which is not a supported file system type for file backup, image backup or archive.
-----------------	---

Explanation

Microsoft Cluster Shared Volumes File Systems (CSVFS) are NTFS or ReFS volumes that are added to Cluster Shared Volumes. These volumes are intended for Hyper-V and expanded support for SQL, not for regular file data. IBM Spectrum Protect does not support file level backup and archive or image backup for CSVFS volumes.

System action

The file system is skipped. Processing continues with the next file system.

User response

Refer to the IBM Spectrum Protect client manual for a complete list of supported file systems.

ANE4446E	A file restore mount operation for hypervisor type Virtual Machine 'vmname' failed. The data center node name is 'data center node name', the mount proxy node name is 'mount proxy node name'.
-----------------	--

Explanation

The file restore mount operation of the virtual machine failed.

System action

The mount of the virtual machine finished with failures.

User response

Review the local client error log for the reason for the failure.

ANE4449E	A cleanup of the file restore mount of hypervisor type Virtual Machine 'vmname' failed. The data center node name is 'data center node name', the mount proxy node name is 'mount proxy node name'.
-----------------	--

Explanation

The cleanup of file restore mount operation of the virtual machine failed.

System action

The cleanup of mount of the virtual machine finished with failures.

User response

Review the local client error log for the reason for the failure.

ANE4450E	The mount proxy platform is not supported for file restore mount operations.
-----------------	---

Explanation

The file restore mount operation failed. The mount proxy platform is unsupported or the IBM Spectrum Protect Recovery Agent is not correctly installed and configured.

System action

The file restore mount operation failed.

User response

Ensure that the IBM Spectrum Protect Recovery Agent is installed and configured correctly and run the file restore mount operation from a supported mount proxy platform.

ANE4451E	The Windows iSCSI service is not available.
-----------------	--

Explanation

The Windows iSCSI service is not available on the mount proxy machine. It is either not started or is not installed or configured correctly.

System action

Processing stops. The file restore mount operation fails.

User response

Ensure that the iSCSI service is up and running on the mount proxy machine.

ANE4900W	Schedule 'schedule-name' has opened a new session with the server.
-----------------	---

Explanation

A scheduled event ends because of a connection failure. The scheduled event had to be restarted outside its normal startup window to continue the operation.

System action

The scheduled event is completed using more than one session.

User response

None required. If this is a recurrent condition, you may want to check for network problems.

ANE4901E	The following object contains one or more unmatched quotation marks and cannot be processed: 'filepath filename'.
-----------------	--

Explanation

The file name in the file list contains unmatched quotes. If a line in the file list begins with a single or double quotation mark this quotation mark is considered to be an opening quotation mark. The corresponding closing quotation mark of the same type must be at the end of the line. If there is no closing quotation mark or the closing quotation mark has been encountered in the middle of the line, it is an invalid input.

System action

The object is skipped.

User response

Correct the specification of the object.

ANE4904E	The instant access operation for the 'vmname' virtual machine failed. The target node is 'target_node_name' and the data mover node is 'data_mover_node_name'.
-----------------	---

Explanation

The instant access operation for the virtual machine failed.

System action

Errors occurred and the instant access operation did not complete.

User response

See the client error log to determine the cause of the failure.

ANE4907E	Instant restore of VMware Virtual Machine 'vmname' failed. target node name='target_node_name', data mover node name='data_mover_node_name'
-----------------	--

Explanation

The instant restore of the virtual machine failed.

System action

The instant restore of the the virtual machine finished with failures. The reason for the failure is written to the local client error log.

User response

Check the local client error log for reason for the failure.

ANE4910E	The cleanup operation for the 'vmname' virtual machine failed. The target node is 'target_node_name' and the data mover node is 'data_mover_node_name'.
-----------------	--

Explanation

The cleanup operation for the virtual machine failed.

System action

Errors occurred and the cleanup operation did not complete.

User response

See the client error log to determine the cause of the failure.

ANE4915I	Object increased in size during compression: <i>filespace pathfilename</i>
-----------------	---

Explanation

The file increased in size during compression.

System action

Processing continues.

User response

None.

ANE4917E	A failure occurred while accessing the VMware libraries. The required files for the virtual machine backup were not found. The files are installed only if the client is defined as a data mover in IBM Spectrum Protect for Virtual Environments.
-----------------	---

Explanation

A failure occurred while accessing the VMware libraries for the virtual machine environment.

System action

The backup operation cannot continue.

User response

Install the IBM Spectrum Protect for Virtual Environments package to use the client to back up virtual machines.

ANE4936E	The snapshot of virtual machine 'vmname' failed and a snapshot cannot be attempted again.
-----------------	--

Explanation

The snapshot of the virtual machine failed with a permanent error. Such as the Hyper-V writer is not

responding. Another snapshot attempt will not be made.

System action

The snapshot of the virtual machine finished with an error. Processing continues to the next virtual machine.

User response

Check the Windows event log for the reason for the failure.

ANE4937I	Resending file <i>file</i> in a new transaction session to recover from the transmission error.
-----------------	--

Explanation

None.

System action

The file is resent.

User response

None.

ANE4938I	Virtual machine: '<i>vm-name</i>' disk: '<i>disk-name</i>' is excluded by size.
-----------------	--

Explanation

The option file or command given excluded the disk from backup processing.

System action

The disk is not processed.

User response

If the disk is intentionally excluded, then this message is expected behavior. Otherwise modify the command or option file to include the disk.

ANE4942E	The file specification '<i>string</i>' is invalid.
-----------------	---

Explanation

The operating system indicated that the file specification is invalid. One possible reason is that the file specification contains unrecognized characters. Another possible cause is incorrect use of quotation marks in the file specification.

System action

Processing stopped.

User response

Enter a correct file specification as described in the *Using the Backup-Archive Client* book for the particular operating system. Ensure that the file specification contains valid characters. Verify correct use of quotation marks for specifications that contain blanks spaces. If multiple file specifications are used, make sure that any use of quotation marks does not cause the file specifications to be treated as a single file specification.

ANE4944I	Virtual machine: '<i>vm-name</i>' disk: '<i>disk-name</i>' is excluded by user.
-----------------	--

Explanation

The option file or command given excluded the disk from backup processing.

System action

The disk is not processed.

User response

If the disk is intentionally excluded, then this message is expected behavior. Otherwise modify the command or option file to include the disk.

ANE4946W	Warning: virtual machine: '<i>vm-name</i>' disk: '<i>disk-name</i>' excluded by user, was not found.
-----------------	---

Explanation

The specified virtual disk does not exist on the virtual machine.

System action

Processing continues.

User response

Use the "dsmc backup vm ..." command with the -preview option to display a listing of the disk labels which exist on the virtual machine. Since the disk was specified to be excluded from the backup, the backup will continue. However it is possible that a disk will included in the backup which was not desired, check the spelling of the disk label, and correct the disk label if an undesired disk is now included in the backup operation.

ANE4947E **Error: virtual machine: '*vm-name*' disk: '*disk-name*' included by user, was not found.**

Explanation

The specified virtual disk does not exist on the virtual machine.

System action

Processing stops.

User response

Use the "dsmc backup vm ..." command with the -preview option to display a listing of the disk labels which exist on the virtual machine. Check the spelling of the disk label and correct the disk label and then retry the 'backup vm' operation.

ANE4948E **A specified virtual disk was not found on the virtual machine.**

Explanation

You must specify a virtual disk label name which exists on the virtual machine.

System action

Processing stops.

User response

For a backup operation, use the "dsmc backup vm ..." command with the -preview option to display a listing of the disk labels which exist on the virtual machine. For a restore operation, use the "dsmc query vm ..." command with the -detail option to display a listing of the disk labels which exist on the virtual machine backup. Check the spelling of the disk label and correct the disk label and then retry the operation.

ANE4972W **File server *file-server-name* has been upgraded to Data ONTAP version '*version.modifcation.submodificati on*'. This version does not support unicode file names for snapshot difference incremental backup. Upgrade to a version that supports unicode file names as soon as possible.**

Explanation

The file server has been upgraded from a version that supports unicode file names for incremental backup

using snapshot difference to a version that does not. If you have upgraded from Data ONTAP version 7.3.3 (or later) to 8.0, you lose the ability to back up files with unicode file names when performing snapshot difference incremental backup.

System action

Processing continues. However, files with unicode names are not backed up.

User response

Upgrade to a version that supports unicode file names as soon as possible. If you have upgraded from Data ONTAP version 7.3.3 (or later) to 8.0, upgrade to 8.1 (or later). If it is not possible to upgrade at this time, you can suppress this warning message by renaming the file space on the IBM Spectrum Protect server and performing a snapshot difference incremental backup.

ANE4973E **An error occurred accessing NTFS security information for file '*filesystem namepath-namefile-name*'**

Explanation

An access denied error occurred while attempting to access NTFS security information.

System action

The object is skipped.

User response

See your system administrator or bypass the failing check by using SkipNTSecurity option.

ANE4974E **Error processing '*filesystem namepath-namefile-name*': a required NT privilege is not held.**

Explanation

The user account running IBM Spectrum Protect does not possess a required NT user right/privilege for performing the current operation.

System action

The object is skipped.

User response

Your system administrator has the authority to grant the needed privilege.

ANE4987E **Error processing 'filesystem namepath-namefile-name': the object is in use by another process**

Explanation

The specified file is being used by another process. You tried to read from or write to a file that is currently being used by another process.

System action

File skipped.

User response

Ensure that the file is not locked by another process. If the file is not locked, retry the command.

ANE4988W **File 'filesystem namepath-namefile-name' is currently unavailable on server and has been skipped.**

Explanation

You tried to restore or retrieve a file that is currently not available from the IBM Spectrum Protect server. This is most likely a temporary condition.

System action

IBM Spectrum Protect cannot restore or retrieve the file.

User response

Try to restore or retrieve the file again after the file becomes available on the server. If the problem persists, see your IBM Spectrum Protect administrator for assistance.

ANE4989E **Error processing 'filesystem namepath-namefile-name': the directory is in use by another process. All objects in the directory and any of its subdirectories are skipped.**

Explanation

The specified directory is being used by another process. You tried to read from or write to a directory that is currently being used by another process. The objects contained in the directory and its subdirectories are not backed up.

System action

Processing stopped for that directory. If other files and directories were also specified in this backup, they are processed

User response

Ensure that you specified the correct directory name, correct the permissions, or specify a new location. If the directory name is correct, retry the backup when no process has exclusive use of the directory.

ANE4991I **Application Type Application Message Id Application Message**

Explanation

This is a message sent by the application you are currently running with IBM Spectrum Protect.

System action

IBM Spectrum Protect logs the application message.

User response

Refer to the documentation for the application that you are using.

ANE4992W **Application Type Application Message Id Application Message**

Explanation

This is a message sent by the application you are currently running with IBM Spectrum Protect.

System action

IBM Spectrum Protect logs the application message.

User response

Refer to the documentation for the application that you are using.

ANE4993E **Application Type Application Message Id Application Message**

Explanation

This is a message sent by the application you are currently running with IBM Spectrum Protect.

System action

IBM Spectrum Protect logs the application message.

User response

Refer to the documentation for the application that you are using.

ANE4994S	<i>Application Type Application Message Id Application Message</i>
-----------------	---

Explanation

This is a message sent by the application you are currently running with IBM Spectrum Protect.

System action

IBM Spectrum Protect logs the application message.

User response

Refer to the documentation for the application that you are using.

ANE4997E	<i>Error processing 'filespace namepath-namefile-name': file system quota reached condition - no space left.</i>
-----------------	---

Explanation

No more files can be restored or retrieved because the quota of the destination file system has been reached.

System action

The client prompts you for action:

- Retry this object
- Skip this object
- Abort the action

User response

Select the appropriate action for this object. Create some free space or increase the quota on the destination file system before you retry the operation. Another option is to restore or retrieve the file to another file system.

ANE4998E	<i>Link information for file 'filename' could not be obtained: access to the object is denied.</i>
-----------------	---

Explanation

Access to the specified file link is denied. You tried to read information for file link and you do not have access permission for this object.

System action

Processing of System State stops.

User response

Try the operation again. If the problem persists, contact IBM technical support for additional assistance.

ANE4999I	<i>The following message was too long to log to the server: 'shortened message with message number'</i>
-----------------	--

Explanation

The message text and inserts are too large to send to the server in the available internal buffer.

System action

The *message number* message is written to the local client error log, then shortened and sent to the server as a part of this message. The message is reduced in length by substituting '...' in the middle of the original message.

User response

The message referred to has been shortened, but describes the error that occurred. See the documentation for that message for more information.

Chapter 3. ANR messages

ANR messages are issued by the server. Some ANR messages are common to all operating systems, and some are specific to a single operating system.

ANR messages list

Messages are listed in ascending numerical order. All elements of the message are documented.

For a list of new, changed, and deleted server messages, see the following files in the server installation directory:

Release_msg_chgs

This file contains all new, changed, and deleted messages from the previous server version to the current version.

Maint_msg_chgs

This file contains all new, changed, and deleted messages from the current server version to the current release.

These files are in the *installation_directory*\doc directory for Microsoft Windows operating systems and the *installation_directory*/server/bin/ directory for all other operating systems.

These files are also available in [New, changed, and deleted server messages](#) on the IBM Spectrum Protect wiki.

Chapter 4. Descriptions of I/O codes in server messages

IBM Spectrum Protect messages can contain input/output (I/O) codes. The codes can be operation codes, completion codes, additional sense codes (ASC), and additional sense code qualifier (ASCQ) codes.

Code descriptions are provided for I/O error messages from the IBM Spectrum Protect server for all supported operating systems.

Code

Description

OP

I/O operation that failed. These values can be displayed:

- READ
- WRITE
- FSR (forward space record)
- RSR (reverse space record)
- FSF (forward space file)
- RSF (reverse space file)
- WEOF (write end of file mark)
- OFFL (rewind and unload the tape)
- FLUSH (flush)
- GET_MEDIUM_INFO (get medium information)
- LOCATE (locate)
- QRYLBP (query logical block protection)
- RDBLKID (read block ID)
- SETLBP (set logical block protection)
- SETMODE (set mode)
- REW (rewind)
- SPACEEOD (space end of data)
- TESTREADY (test drive ready)

CC

I/O completion code. This value is returned by the device driver to the server when an error occurs. For a list of completion codes, see [“Completion code and operation code values overview” on page 52](#). For information about tape library system calls and error descriptions for the library I/O control requests, see [technote S7002972](#).

KEY

Byte 2 of the sense bytes from the error. The following lists some definitions:

- 0 = no additional sense bytes available
- 1 = recovered error
- 2 = not ready
- 3 = medium error
- 4 = hardware error
- 5 = incorrect request
- 6 = unit attention (for example, a SCSI bus reset)
- 7 = data protect
- 8 = blank check

9 = vendor specific
A = copy canceled
B = canceled command
C = obsolete
D = volume overflow
E = miscompare
F = reserved

ASC/ASCQ

ASC and ASCQ codes are bytes 12 and 13 of the sense bytes. The drive or library reference manual provided with the device contains tables explaining the values of the KEY, ASC, and ASCQ fields. “Descriptions of standard ASC and ASCQ codes” on page 57 provides additional information about standard values of ASC and ASCQ codes.

Operating system error codes

When a command fails, the operating system returns an error number. To determine what the error codes mean, take the following action:

On AIX®, HP-UX, and Solaris, platforms, view the `errno.h` file in the `/usr/include/sys` directory. This file provides definitions for error codes.

On Linux platforms, view the `errno-base.h` and `errno.h` files in the `/usr/include/asm-generic` directory. These files provides definitions for codes.

On Windows platforms, contact Microsoft Support for help with error messages.

Completion code and operation code values overview

IBM Spectrum Protect messages can contain device driver completion codes from the device drivers.

Device drivers completion codes: Common codes

IBM Spectrum Protect device drivers provide completion codes that are common to all device classes.

The following table shows common completion code values for IBM Spectrum Protect device drivers. Each entry provides a description for the I/O error message and the recommended action. After completing the recommended action, try the failing operation again.

Table 1. Completion code values common to all device classes

Decimal	Hexadecimal	Description	Recommended action
200	X'C8'	The device indicated a failure condition, but sense data was unavailable.	Try the failing operation again.
201	X'C9'	The device driver failed.	Contact IBM Spectrum Protect Support.
202	X'CA'	The device EEPROM failed.	Test the device. Service the device if necessary.
203	X'CB'	Manual intervention is required.	Correct the problem on the device. The problem can be a stuck tape, dirty heads, or a jammed library arm.
204	X'CC'	The system recovered from an I/O error; for your information only.	No action necessary.
205	X'CD'	The SCSI adapter failed.	Check for loose cables, bent pins, bad cables, bad SCSI adapters, improper termination, or bad terminators.

Table 1. Completion code values common to all device classes (continued)

Decimal	Hexadecimal	Description	Recommended action
206	X'CE'	A general SCSI failure occurred.	Check for loose cables, bent pins, bad cables, bad SCSI adapters, improper termination, or bad terminators.
207	X'CF'	The device cannot perform the requested action.	Ensure that the device is on and ready. Ensure that the drive was defined appropriately with the DEFINE DRIVE command. Ensure that the device class was defined appropriately with the DEFINE DEVCLASS command.
208	X'D0'	The command stopped.	Contact IBM Spectrum Protect Support.
209	X'D1'	A failure is detected in the device microcode.	Check the microcode level of the drive. Contact the drive manufacturer and request the latest level.
210	X'D2'	The device was reset due to device power-up, SCSI bus reset, or manual tape load/eject.	Try the failing operation again.
211	X'D3'	The SCSI bus is busy.	Ensure that the SCSI IDs are correctly assigned to the correct device, and the device is not being accessed by another process.
212	X'D4'	Persistent reservation is not supported on this device.	No action is necessary.
213	X'D5'	A persistent reservation operation failed.	Reset the device and try the operation again. If the problem persists, contact IBM Spectrum Protect Support.

Device drivers completion codes: Media changers

IBM Spectrum Protect device drivers provide completion codes that are specific to media changer devices.

The following table shows completion code values for IBM Spectrum Protect device drivers for media changers. Each entry provides a description for the I/O error message and the recommended action. After performing the recommended action, try the failing operation again.

Table 2. Completion code values for media changers

Decimal	Hexadecimal	Description	Recommended action
300	X'12C'	Cartridge entry/exit error	Check the entry/exit ports for a jammed volume.
301	X'12D'	Cartridge load failure	Check the drive for jammed volumes. On AIX, display the errpt to check for hardware errors.
302	X'12E'	Cartridge in failed drive	Check the drive for jammed volumes. On AIX, display the errpt to check for hardware errors.

Table 2. Completion code values for media changers (continued)

Decimal	Hexadecimal	Description	Recommended action
303	X'12F'	Carousel not loaded	Ensure that the carousel is correctly in place and the door is shut.
304	X'130'	Changer failure	On AIX, display the errpt to check for hardware errors.
305	X'131'	Drive failure	Ensure that the heads are clean. On AIX, display the errpt to check for hardware errors.
306	X'132'	Drive or media failure	Ensure that the heads are clean. On AIX, display the errpt to check for hardware errors.
307	X'133'	Entry/exit failure	Check the tape library interface for hardware errors. If there are no errors, contact IBM Spectrum Protect Support.
308	X'134'	Entry/exit port not present	Check the tape library interface for hardware errors. If there are no errors, contact IBM Spectrum Protect Support.
309	X'135'	Library audit error	Ensure that there are no jammed volumes. It is possible that the library audit is failing due to hardware errors. On AIX, display the errpt to check for hardware errors.
310	X'136'	Library full	Check for jammed volumes. Ensure that the volumes are not rearranged. If the library is not full, start the AUDIT LIBRARY command.
311	X'137'	Media export	Check the tape library interface for hardware errors. If there are no errors, contact IBM Spectrum Protect Support.
312	X'138'	Slot failure	Ensure that nothing is jammed in the slot.
313	X'139'	Slot or media failure	Ensure that the volume is not jammed in the slot and that the volumes are not rearranged. If the problem persists, start the AUDIT LIBRARY command.
314	X'13A'	The source slot or drive was empty in an attempt to move a volume	Ensure that the volumes are not rearranged. If the problem persists, start the AUDIT LIBRARY command.
315	X'13B'	The destination slot or drive was full in an attempt to move a volume	Ensure that the volumes are not rearranged, or that a volume is not stuck in the drive. If problem persists, start the AUDIT LIBRARY command.

Table 2. Completion code values for media changers (continued)

Decimal	Hexadecimal	Description	Recommended action
316	X'13C'	Cleaner cartridge installed	Contact IBM Spectrum Protect support.
317	X'13D'	Media not ejected	Ensure that the volumes are not rearranged, or that a volume is not stuck in the drive. If problem persists, start the AUDIT LIBRARY command.
318	X'13E'	I/O port not configured	Contact IBM Spectrum Protect Support.
319	X'13F'	First destination empty	Ensure that the volumes are not rearranged. If problem persists, start the AUDIT LIBRARY command.
320	X'140'	No inventory information	Start the AUDIT LIBRARY command.
321	X'141'	Read element status mismatch	Ensure that host bus adapter drivers and firmware are at current levels. Check the tape library interface for hardware errors. If there are no errors, contact IBM Spectrum Protect Support.
322	X'142'	Initialize range failed	Check the tape library interface for hardware errors. If there are no errors, contact IBM Spectrum Protect Support.

Device drivers completion codes: Tape drives

IBM Spectrum Protect device drivers provide completion codes that are specific to tape drives.

The following table shows completion code values for IBM Spectrum Protect device drivers for tape drives. Each entry provides a description for the I/O error message and the recommended action. After trying the recommended action, try the failing operation again.

Table 3. Completion code values for tape drives

Decimal	Hexadecimal	Description	Recommended action
400	X'190'	Physical end of media encountered	Ensure that the heads are clean on the drive.
401	X'191'	End of data detected	Contact IBM Spectrum Protect Support.
402	X'192'	Media corrupted	Ensure that the heads are clean. Ensure that the media is not physically damaged and has not reached the end of life as specified by the media manufacturer.
403	X'193'	Media failure	Ensure that the heads are clean. Ensure that the media is not physically damaged and has not reached the end of life as specified by the media manufacturer.

Table 3. Completion code values for tape drives (continued)

Decimal	Hexadecimal	Description	Recommended action
404	X'194'	Media incompatibility	Ensure that the correct length and type of media is being used.
406	X'196'	Sector that is requested is invalid	Internal server error. Contact IBM Spectrum Protect Support.
407	X'197'	Write protect	Ensure that the volume is not write protected.
408	X'198'	Clean the media and the drive	Clean the drive heads with a cleaning cartridge.
409	X'199'	Media fault	Ensure that the heads are clean. Ensure that the media is not physically damaged and has not reached the end of life as specified by the media manufacturer.
410	X'19A'	Cleaning complete	Try the failing operation again.
411	X'19B'	Logical end of media encountered	Contact IBM Spectrum Protect Support.
412	X'19C'	Media not present in drive	Ensure that the media is correctly positioned in the drive. If problem persists, start the AUDIT LIBRARY command.
413	X'19D'	Encountered the beginning of the media	Contact IBM Spectrum Protect Support.
414	X'19E'	Erase failure	Clean the drive heads.
415	X'19F'	Attempted to overwrite written WORM media	Internal server error. Contact IBM Spectrum Protect Support.
416	X'1A0'	An incorrect length block was read.	Ensure that the heads are clean. On AIX, display the errpt to check for hardware errors.
417	X'1A1'	Open read only	Contact IBM Spectrum Protect Support.
418	X'1A2'	Open write only	Contact IBM Spectrum Protect Support.
419	X'1A2'	Media scan failed	Clean the drive and media.
420	X'1A4'	Logical write protect	Ensure that the heads are clean. Check operating system error logs for hardware errors. Verify that the write protect tab is off. Turn off SAN tape acceleration or set CHECKTAPEPOS to OFF or TSMonly.
422	X'1A6'	Cleaning is required	Clean the tape drive.
423	X'1A7'	Media error	Check operating system error logs for hardware errors. Check for bad media.

Table 3. Completion code values for tape drives (continued)

Decimal	Hexadecimal	Description	Recommended action
424	X'1A8'	Encryption-related error occurred	Check your encryption setting on your device class and tape drive.
425	X'1A9'	Decryption-related error occurred	Check your encryption setting on your device class and tape drive.
425	X'1AA'	An external, encryption-related error occurred	Check the encryption setting on your device class and tape drive.
426	X'1AB'	A CRC mismatch occurred	Ensure that the media has not reached the end of life as specified by the media manufacturer. Try the operation again.

Descriptions of standard ASC and ASCQ codes

Standard ASC and ASCQ codes are described.

The ASC and ASCQ codes are bytes 12 and 13 for SCSI-2 devices. On Windows systems, these codes are displayed in the Windows Event Log, but the information is in different bytes.

See server message ANR8300E or ANR8302E for the recommended action.

The following table provides standard descriptions for some ASC and ASCQ codes. Each value has a prefix of 0x, which indicates that it is a hexadecimal constant. Note that descriptions vary among devices. For an accurate description of ASC and ASCQ codes for any device, see the documentation that comes with the device.

Table 4. Descriptions of standard ASC and ASCQ codes

ASC	ASCQ	Description
0x00	0x00	No additional sense
0x00	0x01	Filemark detected
0x00	0x02	End-of-medium detected
0x00	0x03	Setmark detected
0x00	0x04	Beginning of medium
0x00	0x05	End of data
0x00	0x06	I/O process terminated
0x02	0x00	No seek complete
0x03	0x00	Device write fault
0x03	0x01	No write current
0x03	0x02	Excessive write errors
0x04	0x00	Logical unit not ready
0x04	0x01	Becoming ready
0x04	0x02	Not ready, initializing command required
0x04	0x03	Not ready, manual intervention required
0x04	0x04	Not ready, formatting

Table 4. Descriptions of standard ASC and ASCQ codes (continued)

ASC	ASCQ	Description
0x05	0x00	No response to select
0x06	0x00	No reference position found
0x07	0x00	Multiple devices selected
0x08	0x00	Communication failure
0x08	0x01	Communication timeout
0x08	0x02	Communication parity error
0x09	0x00	Track following error
0x0A	0x00	Error log overflow
0x0C	0x00	Write error
0x11	0x00	Unrecovered read error
0x11	0x01	Read retries exhausted
0x11	0x02	Error too long to correct
0x11	0x03	Multiple read errors
0x11	0x08	Incomplete block read
0x11	0x09	No gap found
0x11	0x0A	Miscorrected error
0x14	0x00	Recorded entity not found
0x14	0x01	Record not found
0x14	0x02	Filemark/setmark not found
0x14	0x03	End-of-data not found
0x14	0x04	Block sequence error
0x15	0x00	Random positioning error
0x15	0x01	Mechanical positioning error
0x15	0x02	Read positioning error
0x17	0x00	No error correction applied
0x17	0x01	Recovered with retries
0x17	0x02	Recovered with positive head offset
0x17	0x03	Recovered with negative head offset
0x18	0x00	ECC applied
0x1A	0x00	Parameter list length error
0x1B	0x00	Synchronous data transfer error
0x20	0x00	Invalid operation code
0x21	0x00	Block out of range
0x21	0x01	Invalid element address

Table 4. Descriptions of standard ASC and ASCQ codes (continued)

ASC	ASCQ	Description
0x24	0x00	Invalid field in CDB
0x25	0x00	LUN not supported
0x26	00	Invalid field in parameter list
0x26	0x01	Parameter not supported
0x26	0x02	Parameter value invalid
0x26	0x03	Threshold parameters not supported
0x27	0x00	Write protected
0x28	0x00	Not-ready to ready
0x28	0x01	Import/export element accessed
0x29	0x00	Power-on, reset, bus reset
0x2A	0x00	Parameters changed
0x2A	0x01	Mode parameters changed
0x2A	0x02	Log parameters changed
0x2B	0x00	Copy cannot run
0x2C	0x00	Command sequence error
0x2D	0x00	Overwrite error on update
0x2F	0x00	Command cleared by initiator
0x30	0x00	Incompatible media
0x30	0x01	Media unknown format
0x30	0x02	Media incompatible format
0x30	0x03	Cleaning cartridge installed
0x31	0x00	Media format corrupted
0x33	0x00	Tape length error
0x37	0x00	Rounded parameter
0x39	0x00	Saving parameters not supported
0x3A	0x00	Medium not present
0x3B	0x00	Sequential positioning error
0x3B	0x01	Positioning error at BOT
0x3B	0x02	Positioning error at EOT
0x3B	0x08	Reposition error
0x3B	0x0D	Medium destination element full
0x3B	0x0E	Medium source element empty
0x3D	0x00	Invalid bits in message
0x3E	0x00	LUN not self-configured

Table 4. Descriptions of standard ASC and ASCQ codes (continued)

ASC	ASCQ	Description
0x3F	0x00	Operating conditions changed
0x3F	0x01	Microcode changed
0x3F	0x02	Changed operating definition
0x3F	0x03	Inquiry data changed
0x3F	0x0E	Reported LUNs data changed
0x43	0x00	Message error
0x44	0x00	Internal target failure
0x45	0x00	Select/reselect failure
0x46	0x00	Unsuccessful soft reset
0x47	0x00	SCSI parity error
0x48	0x00	Initiator detected message received
0x49	0x00	Invalid message error
0x4A	0x00	Command phase error
0x4B	0x00	Data phase error
0x4C	0x00	LUN failed self-configuration
0x4E	0x00	Overlapped commands attempt
0x50	0x00	Write append error
0x50	0x01	Write append position error
0x50	0x02	Position error (timing)
0x51	0x00	Erase failure
0x52	0x00	Cartridge fault
0x53	0x00	Load/media eject failed
0x53	0x01	Unload tape failure
0x53	0x02	Media removal prevented
0x5A	0x00	Operator state changed
0x5A	0x01	Operator media removal
0x5A	0x02	Operator write protect
0x5A	0x03	Operator write permit
0x5B	0x00	Log exception
0x5B	0x01	Threshold condition met
0x5B	0x02	Log counter at maximum
0x5B	0x03	Log list codes exhausted

ASC and ASCQ codes in the Windows Event Log

ASC and ASCQ codes are displayed in the Windows Event Log.

The ASC and ASCQ codes are displayed as hexadecimal values in the Data area of the Windows Event Log. The Event Log omits the 0x prefix for the displayed information.

In the Windows Event Log, the entries with source AdsmScsi are produced by the IBM Spectrum Protect AdsmScsi device driver. Entries from the AdsmScsi device driver or any Windows tape device driver contain the following information:

- Byte 3E is the sense key
- Byte 3D is the ASC
- Byte 3C is the ASCQ

If byte 44 is 'ef', the error logged is not a check condition error. Examples of such errors are command timeouts or device selection errors.

Chapter 5. Device error codes in the AIX system error log

Some device error codes are logged in the AIX system error log.

ADSM_DD_LOG1 (0xAC3AB953)

DEVICE DRIVER SOFTWARE ERROR

This error is logged by the IBM Spectrum Protect device driver when a problem is suspected in the IBM Spectrum Protect device driver software. If the IBM Spectrum Protect device driver issues a SCSI I/O command with an illegal operation code, the command fails and the error is logged with this identifier. Report this error immediately to IBM Spectrum Protect Support.

Detail Data: Sense Data

The sense data contains information that can determine the cause of the error. Report all data in the error entry to IBM Spectrum Protect Support.

ADSM_DD_LOG2 (0x5680E405)

HARDWARE/COMMAND-ABORTED ERROR

This error is logged by the IBM Spectrum Protect device driver when the device reports a hardware error or stop-command error in response to a SCSI I/O command.

Detail Data: Sense Data

The sense data contains information that can determine which hardware component failed and why. To interpret the sense data for a particular device, refer to the SCSI specification manual for the device.

ADSM_DD_LOG3 (0x461B41DE)

MEDIA ERROR

This error is logged by the IBM Spectrum Protect device driver when a SCSI I/O command fails because of corrupted or incompatible media, or because a drive requires cleaning.

Detail Data: Sense Data

The sense data contains information that can determine the cause of the error. To interpret the sense data for a particular device, refer to the SCSI specification manual for the device.

ADSM_DD_LOG4 (0x4225DB66)

TARGET DEVICE GOT UNIT ATTENTION

This error is logged by the IBM Spectrum Protect device driver after receiving certain UNIT ATTENTION notifications from a device. UNIT ATTENTIONs are informational and usually indicate that some state of the device changed. For example, this error would be logged if the door of a library device was opened and then closed. Logging this event indicates that the activity occurred and that the library inventory might be changed.

Detail Data: Sense Data

The sense data contains information that describes the reason for the UNIT ATTENTION. To interpret the sense data for a particular device, see the SCSI specification manual for the device.

ADSM_DD_LOG5 (0xDAC55CE5)

PERMANENT UNKNOWN ERROR

This error is logged by the IBM Spectrum Protect device driver after receiving an unknown error from a device in response to a SCSI I/O command. If the error persists, report it to IBM Spectrum Protect support personnel.

Detail Data: Sense Data

The sense data consists of information that can determine the cause of the error. Report all data in the error entry to IBM Spectrum Protect Support.

ADSM_DD_LOG6 (0xBC539B26)

WARNING OR INFORMATIONAL MESSAGE FOR TARGET DEVICE

This error is logged by the IBM Spectrum Protect device driver after receiving a warning or informational message from a device in response to a SCSI I/O command. These warning or informational messages might not be an indication of a problem. They could be an indication that cleaning is completed, that the cleaning cartridge is inserted, or something similar. If the message persists, report it to IBM Spectrum Protect Support.

Detail Data: Sense Data

The sense data consists of information that can determine the reason for the message. Report all data in the entry to IBM Spectrum Protect Support.

Appendix A. Accessibility features for the IBM Spectrum Protect product family

Accessibility features assist users who have a disability, such as restricted mobility or limited vision, to use information technology content successfully.

Overview

The IBM Spectrum Protect family of products includes the following major accessibility features:

- Keyboard-only operation
- Operations that use a screen reader

The IBM Spectrum Protect family of products uses the latest W3C Standard, WAI-ARIA 1.0 (www.w3.org/TR/wai-aria/), to ensure compliance with US Section 508 and Web Content Accessibility Guidelines (WCAG) 2.0 (www.w3.org/TR/WCAG20/). To take advantage of accessibility features, use the latest release of your screen reader and the latest web browser that is supported by the product.

The product documentation in IBM Documentation is enabled for accessibility.

Keyboard navigation

This product uses standard navigation keys.

Interface information

User interfaces do not have content that flashes 2 - 55 times per second.

Web user interfaces rely on cascading style sheets to render content properly and to provide a usable experience. The application provides an equivalent way for low-vision users to use system display settings, including high-contrast mode. You can control font size by using the device or web browser settings.

Web user interfaces include WAI-ARIA navigational landmarks that you can use to quickly navigate to functional areas in the application.

Vendor software

The IBM Spectrum Protect product family includes certain vendor software that is not covered under the IBM license agreement. IBM makes no representation about the accessibility features of these products. Contact the vendor for accessibility information about its products.

Related accessibility information

In addition to standard IBM help desk and support websites, IBM has a TTY telephone service for use by deaf or hard of hearing customers to access sales and support services:

TTY service
800-IBM-3383 (800-426-3383)
(within North America)

For more information about the commitment that IBM has to accessibility, see [IBM Accessibility](http://www.ibm.com/able) (www.ibm.com/able).

Notices

This information was developed for products and services offered in the US. This material might be available from IBM in other languages. However, you may be required to own a copy of the product or product version in that language in order to access it.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing
IBM Corporation
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
US*

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

*Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan*

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

*IBM Director of Licensing
IBM Corporation
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
US*

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

The performance data discussed herein is presented as derived under specific operating conditions. Actual results may vary.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work must include a copyright notice as follows: © (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. _enter the year or years_.

Trademarks

IBM, the IBM logo, and ibm.com® are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.

Adobe is a registered trademark of Adobe Systems Incorporated in the United States, and/or other countries.

Linear Tape-Open, LTO, and Ultrium are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Intel and Itanium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

The registered trademark Linux® is used pursuant to a sublicense from the Linux Foundation, the exclusive licensee of Linus Torvalds, owner of the mark on a worldwide basis.

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java™ and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Red Hat®, OpenShift®, Ansible®, and Ceph® are trademarks or registered trademarks of Red Hat, Inc. or its subsidiaries in the United States and other countries.

UNIX is a registered trademark of The Open Group in the United States and other countries.

VMware, VMware vCenter Server, and VMware vSphere are registered trademarks or trademarks of VMware, Inc. or its subsidiaries in the United States and/or other jurisdictions.

Terms and conditions for product documentation

Permissions for the use of these publications are granted subject to the following terms and conditions.

Applicability

These terms and conditions are in addition to any terms of use for the IBM website.

Personal use

You may reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You may not distribute, display or make derivative work of these publications, or any portion thereof, without the express consent of IBM.

Commercial use

You may reproduce, distribute and display these publications solely within your enterprise provided that all proprietary notices are preserved. You may not make derivative works of these publications, or reproduce, distribute or display these publications or any portion thereof outside your enterprise, without the express consent of IBM.

Rights

Except as expressly granted in this permission, no other permissions, licenses or rights are granted, either express or implied, to the publications or any information, data, software or other intellectual property contained therein.

IBM reserves the right to withdraw the permissions granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or, as determined by IBM, the above instructions are not being properly followed.

You may not download, export or re-export this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

IBM MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

Privacy policy considerations

IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user, or for other purposes. In many cases no personally identifiable information is collected by the Software Offerings. Some of our Software Offerings can help enable you to collect personally identifiable information. If this Software Offering uses cookies to collect personally identifiable information, specific information about this offering's use of cookies is set forth below.

This Software Offering does not use cookies or other technologies to collect personally identifiable information.

If the configurations deployed for this Software Offering provide you as customer the ability to collect personally identifiable information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for notice and consent.

For more information about the use of various technologies, including cookies, for these purposes, see IBM's Privacy Policy at <http://www.ibm.com/privacy> and IBM's Online Privacy Statement at <http://www.ibm.com/privacy/details> in the section entitled "Cookies, Web Beacons and Other Technologies," and the "IBM Software Products and Software-as-a-Service Privacy Statement" at <http://www.ibm.com/software/info/product-privacy>.

Glossary

A glossary is available with terms and definitions for the IBM Spectrum Protect family of products.
See the [IBM Spectrum Protect glossary](#).



Product Number: 5725-W98
5725-W99
5725-X15
5725-X18