■ NetApp

coredump events

ONTAP 9.13.1 EMS reference

NetApp February 12, 2024

This PDF was generated from https://docs.netapp.com/us-en/ontap-ems-9131/coredump-all-events.html on February 12, 2024. Always check docs.netapp.com for the latest.

Table of Contents

coredump events	1
coredump.all events	1
coredump.compress events	1
coredump.compression events	1
coredump.coreid events	2
coredump.delete events	2
coredump.disk events	3
coredump.dr events	3
coredump.dump events	5
coredump.encryption events	12
coredump.findcore events	13
coredump.host events	15
coredump.job events	16
coredump.long events	17
coredump.mcc events	18
coredump.micro events	18
coredump.nosavecore events	19
coredump.nvlog events	19
coredump.save events	20
coredump.segment events	25
coredump.shutdown events	26
coredump.spare events	26
coredump.sparecore events	28
coredump.sparecoreinit events	29

coredump events

coredump.all events

coredump.all.disks.used

Severity

ERROR

Description

All disks available to coredump already contain unsaved cores.

Corrective Action

There are three choices. First, add more disks to the system. Second, delete any unsaved cores by running "savecore -k". Third, save any unsaved cores by running "savecore". It may be necessary to run "savecore -f" to save the cores, if previous attempts to save these cores have failed.

Syslog Message

No disks available for dumpcore

Parameters

(None).

coredump.compress events

coredump.compress.failed

Severity

ERROR

Description

An error was encountered while compressing data for the coredump. This core will be deleted.

Corrective Action

(None).

Syslog Message

Error compressing core data: %s

Parameters

msg (STRING): The error message

coredump.compression events

coredump.compression.details

Severity

INFORMATIONAL

Description

This message occurs when a compressed kernel core is generated. Details about compression are reported.

Corrective Action

(None).

Syslog Message

%s, compression time %llu msec, compression count %llu, bytes before compression %llu, bytes after compression %llu, compression ratio %llu%%, compression bandwidth %llu MB/s, total compression time %llu msec, all-zero chunk count %llu.

Parameters

type (STRING): Type of dump. Possible types are compressed core, compressed spraycore, spraycore and sparecore.

compressTime (LONGINT): Compression time, in milliseconds.

compressCount (LONGINT): Number of compressions.

compressBytesIn (LONGINT): Number of bytes before compression.

compressBytesOut (LONGINT): Number of bytes after compression.

compressRatio (LONGINT): Compression ratio expressed as a percentage.

compressBandwidth (LONGINT): Compression bandwidth, in MBps.

totalCompressTime (LONGINT): Total compression time, in milliseconds.

allZeroChunks (LONGINT): Number of all-zero chunks.

coredump.coreid events

coredump.coreid.not.found

Severity

INFORMATIONAL

Description

Could not find the specified core

Corrective Action

Double-check the core id, and try again.

Syslog Message

Core %d could not be found

Parameters

coreid (INT): The core id that could not be found

coredump.delete events

coredump.delete.denied

Severity

INFORMATIONAL

Description

This message occurs when a requested coredump delete cannot occur because an aggregate relocation or a takeover is in progress. The system cannot delete a core while either an aggregate relocation or a takeover is in progress.

Corrective Action

Retry the coredump delete after aggregate relocation or takeover completes.

Syslog Message

Coredump delete disallowed because an aggregate relocation or a takeover in progress.

Parameters

(None).

coredump.disk events

coredump.disk.write.details

Severity

INFORMATIONAL

Description

This message occurs when a kernel core is written to disk. Details about disk operations are reported.

Corrective Action

(None).

Syslog Message

%s, disk write time %llu msec, disk write count %llu, disk write bytes %llu, disk write bandwidth %llu MB/s.

Parameters

type (STRING): Type of dump. Possible types are compressed core, compressed spraycore, spraycore and sparecore.

writeTime (LONGINT): Disk write time, in milliseconds.

writeCount (LONGINT): Number of disk writes.

writeBytes (LONGINT): Number of bytes written to disk.

writeBandwidth (LONGINT): Disk write bandwidth, in MBps.

coredump.dr events

coredump.dr.dump.not.started

Severity

ERROR

Description

This message occurs when coredump subsystem detects that disaster recovery (DR) partner sparecore dump did not start.

Corrective Action

Log in to service processor and power cycle the DR partner that may not have started dumping core.

Syslog Message

DR partner sparecore dump failed to start.

Parameters

(None).

coredump.dr.spare.abort

Severity

INFORMATIONAL

Description

This message occurs when coredump subsystem attempts to abort any sparecore dump that might be in progress on disaster recovery (DR) partner. This process can take up to 60 seconds. During this time, other coredump operations are not serviced.

Corrective Action

(None).

Syslog Message

Pausing to abort DR partner sparecore dump on %s because %s.

Parameters

diskuid (STRING): UID of DR partner sparecore dump disk. **reason** (STRING): Reason for aborting the DR partner sparecore dump.

coredump.dr.spare.noAbort

Severity

ERROR

Description

This message occurs when coredump subsystem is unable to abort any sparecore dump that might be in progress on disaster recovery (DR) partner.

Corrective Action

Log in to service processor and power cycle the DR partner that is still dumping core.

Syslog Message

DR partner sparecore dump could not be aborted on disk %s because %s.

Parameters

diskuid (STRING): UID of DR partner sparecore dump disk. **reason** (STRING): Reason for abort failure.

coredump.dump events

coredump.dump.abort

Severity

ERROR

Description

This message occurs when there is an unsaved core on the dump device. The abort prevents a new crash from overwriting the original dump core, which is expected to contain more interesting information for analysis.

Corrective Action

If the default behavior is not desired, then set the boot option 'save-latest-core?' to true.

Syslog Message

Dump is aborted because a core in the dump device is not saved yet.

Parameters

(None).

coredump.dump.disk.failed

Severity

NOTICE

Description

This message occurs once for each core disk that has read or write errors while dumping the core. Each disk is marked as failed, so further writes to the disks are dropped. Dumpcore tries to recover from this error, and continue dumping the core.

Corrective Action

(None).

Syslog Message

Disk %s had %u read and %u write error(s) during dumpcore.

Parameters

disk (STRING): Name of this core disk marked failed with read or write errors. readErrorCount (INT): Number of read errors seen on this core disk. writeErrorCount (INT): Number of write errors seen on this core disk.

coredump.dump.disk_failed.count

Severity

ERROR

Description

During the last dumpcore attempt, disk write errors are ignored, and dumpcore continues. In this case, too many disks failed during the last dump attempt for savecore to create a core file. The core will be deleted, and no core will be available from this panic.

Corrective Action

(None).

Syslog Message

%d of %d disks failed during dumpcore

Parameters

failed (INT): Number of failed disks total (INT): Number of disks used

coredump.dump.disks.count

Severity

ERROR

Description

This message occurs when the system fails to write a coredump due to lack of disk space.

Corrective Action

Disk space needed for a coredump can be reduced by enabling sparse cores, which is the default setting. Verify that sparse cores are enabled by using the "system node coredump config show" command. If not, enable them by using the "system node coredump modify -node local -sparse-enabled true" command. If there is still not enough disk space to write a coredump, add a spare disk that is at least 0.6 times the sum of primary memory size and NVRAM memory size. You can obtain sizes of primary memory and NVRAM memory by using the "run local sysconfig" command and reading entries for system board and NVRAM.

Syslog Message

Not enough disks to write core dump.

Parameters

(None).

coredump.dump.dont

Severity

INFORMATIONAL

Description

This message occurs when a core dump is not performed because the system was configured to not dump cores or dump is disabled in the code path that caused the system to panic. Any of the following configuration methods can disable coredump: - Environment variable "dont-dump-core?" is "true" - Parameter "-coredump-attempts" in the command "system node coredump config" is "0".

Corrective Action

If the reason is "dump disabled in the current code path", there is no corrective action that can be taken. If the reason is "coredump configured to not dump cores", 1. "-coredump-attempts" parameter might be set to "0". Check the "Max Dump Attempts" value in the output of the "system node coredump config show -node node_name" command. If "0", use the "system node coredump config modify ←node node_name> -coredump-attempts <number_of_attempts>" command to set a non-zero value. The default is 2 attempts. 2. "dont-dump-core?" environment variable might be set to "true". From the nodeshell, use the (priv: diag) "bootargs dump" command to check whether "dont-dump-core?" exists and is set to "true". To unset the variable, use the "bootargs unset dont-dump-core?" command.

Syslog Message

Coredump not performed because %s.

Parameters

reason (STRING): Reason that coredump was not performed.

coredump.dump.failed

Severity

EMERGENCY

Description

Coredump failed to complete.

Corrective Action

Previously logged coredump.dump.* events should help explain the exact cause of the failure.

Syslog Message

Dumpcore failed

Parameters

(None).

coredump.dump.find.all.used

Severity

ERROR

Description

Unsaved cores occupy all the disks available to dumpcore.

Corrective Action

Save the unsaved cores using "savecore" or "savecore -f". If the cores aren't needed, run "savecore -k" to delete them.

Syslog Message

All available disks contain unsaved cores

Parameters

(None).

coredump.dump.find.disks.failed

Severity

ERROR

Description

Could not find any suitable disks for dumping a core.

Corrective Action

Make sure there are non-broken disks connected to (and owned by) the panicing host.

Syslog Message

No valid disks found

Parameters

(None).

coredump.dump.find.spare.failed

Severity

ERROR

Description

A sparecore dump is supposed to be done, but no suitable spare disk can be found. In these situations, it is more important to allow a fast takeover than it is to get the core, so the dump is terminated, and takeover begins.

Corrective Action

Add a spare disk to the system, or disable the "cf.takeover.on_panic" option.

Syslog Message

No valid spare disk found

Parameters

(None).

coredump.dump.nvram.copy.failed

Severity

ERROR

Description

Error while copying NVRAM into main memory during dumpcore. The resulting coredump will have dummy data in the NVRAM segment.

Corrective Action

(None).

Syslog Message

Error while copying NVRAM contents into main memory

Parameters

(None).

coredump.dump.raid.notready

Severity

ERROR

Description

RAID has not yet processed the labels on the, disks, so dumpcore cannot proceed. This is typically the case for panics very early during boot.

Corrective Action

(None).

Syslog Message

RAID not ready to dump cores

Parameters

(None).

coredump.dump.recursive.late

Severity

ERROR

Description

A recursive panic situation has been encountered. The location of the second panic makes it unsafe to attempt another dump.

Corrective Action

(None).

Syslog Message

Late recursive panic caused dumpcore to abort

Parameters

(None).

coredump.dump.save.latest.core

Severity

ERROR

Description

The boot option save-latest-core? is set to true. This will discard all unsaved cores during coredump.

Corrective Action

If the behavior is not desired then set the boot option save-latest-core? to false.

Syslog Message

Saving the latest core and discarding all unsaved cores.

Parameters

(None).

coredump.dump.scrub.skipped

Severity

NOTICE

Description

This message occurs when the coredump process was asked to scrub sensitive memory areas but could not do so. The dump must be aborted to avoid saving such memory areas to disk.

Corrective Action

(None).

Syslog Message

Could not scrub protected memory regions.

Parameters

(None).

coredump.dump.segments.count

Severity

ERROR

Description

Dumpcore ran out of space for the core segments in the header. This core cannot be dumped.

Corrective Action

Disable the "coredump.metadata only" option.

Syslog Message

Out of segment space in the core header

Parameters

(None).

coredump.dump.spare.no.space

Severity

ERROR

Description

The selected spare disk might not be big enough to hold the core. The dump attempt has been aborted.

Corrective Action

Make sure a spare disk is available that is at least as big as the sum of main memory and NVRAM. Set the option "coredump.metadata_only" to "on". If the problem persists, turn off the option "cf.takeover.on_panic". This will disable the sparecore feature, and delay takeovers until the panicing partner has finished dumping the core.

Syslog Message

Spare disk too small for coredump

Parameters

(None).

coredump.dump.started

Severity

INFORMATIONAL

Description

Basic info about start of dumpcore

Corrective Action

(None).

Syslog Message

%s starting with %d disks

Parameters

type (STRING): Type of dump. Possible types are compressed, sprayed, and sparecore. **disks** (INT): Number of disks being used

coredump.dump.time

Severity

INFORMATIONAL

Description

Information about how long dumpcore took to complete.

Corrective Action

(None).

Syslog Message

%s completed in %d seconds

Parameters

type (STRING): Type of dump. Possible types are compressed, sprayed, and sparecore. **seconds** (INT): Number of seconds spent on the dump

coredump.dump.write.blocks.failed

Severity

ERROR

Description

Failed to write dump data blocks to disk. If the write failed because of disk problems, dumpcore will restart, without the disk that failed. If the write failed for other reasons (eg. attempt to write to a bad position on the disk), dumpcore will be aborted.

Corrective Action

(None).

Syslog Message

Error dumping %llu blocks starting at block %llu to disk %s

Parameters

blocks (LONGINT): Number of blocks trying to be dumped

start (LONGINT): Starting block number

disk (STRING): Name of disk on which the write failed

coredump.dump.write.error

Severity

ERROR

Description

An i/o error occurred while attempting to write a coredump to disk.

Corrective Action

(None).

Syslog Message

An i/o error occurred while attempting to dump core.

Parameters

(None).

coredump.dump.write.header.failed

Severity

ERROR

Description

Failed to write the core header to disk during dumpcore.

Corrective Action

(None).

Syslog Message

Error writing core header to block %llu on disk %s

Parameters

header (LONGINT): Block number of the core header block **disk** (STRING): Name of disk on which the write failed

coredump.encryption events

coredump.encryption.disabled

Severity

ERROR

Description

This message occurs when encryption is configured on the controller, but the coredump subsystem cannot encrypt data. A system panic in this situation results in no core file being produced.

Corrective Action

(Call support).

Syslog Message

Coredump encryption cannot encrypt data. Core file will not be saved in this state.

Parameters

(None).

coredump.encryption.restored

Severity

NOTICE

Description

This message occurs when encryption is configured on the controller, the coredump subsystem experienced a transient problem encrypting data, but has since recovered and will be able to save encrypted core dump files in the event of a system panic.

Corrective Action

(None).

Syslog Message

Coredump encryption experienced a failure in the past but has recovered. Core files can now be saved.

Parameters

(None).

coredump.findcore events

coredump.findcore.error

Severity

ERROR

Description

This message occurs when the core dump process detects an error while checking for an unsaved core in the dump device. The dump is not aborted.

Corrective Action

(None).

Syslog Message

Ignored the error (%d: %s) when trying to find an unsaved core in the dump device.

Parameters

```
errCode (INT): Error code.
errString (STRING): Error code represented as a string.
```

coredump.findcore.nospace

Severity

ERROR

Description

There are too many unsaved cores on the system to handle them all at one time. Some cores are being ignored.

Corrective Action

Run "savecore" multiple times to save all the cores. Alternatively, run "savecore -k" to delete all of them.

Syslog Message

Too many unsaved cores

Parameters

(None).

coredump.findcore.partial

Severity

ERROR

Description

This message occurs during a core dump, when only a partial core is found. Although enough of this core is present for the core to be partially saved, there might be errors while doing so. These occur when data essential to the core creation process is lost with the missing disks.

Corrective Action

Run the "savecore" command to attempt to save the partial core, or run the "savecore -k" command to delete all unsaved cores.

Syslog Message

Partial core %s is missing %d of %d disks.

Parameters

```
corefile (STRING): Name of the kernel core file. missing (INT): Number of disks that are missing. total (INT): Total number of disks used in this dump.
```

coredump.findcore.partial.nosave

Severity

ERROR

Description

This message occurs when a partial core is found with too much missing to be saved.

Corrective Action

Run the "savecore -k" command to delete all unsaved cores.

Syslog Message

Cannot save partial core %s, missing %d of %d disks.

Parameters

corefile (STRING): Name of the kernel core file. **missing** (INT): Number of disks that are missing. **total** (INT): Total number of disks used in this dump.

coredump.host events

coredump.host.spare.none

Severity

INFORMATIONAL

Description

This message occurs when no sparecore disk is found at boot/takeover time.

Corrective Action

(None).

Syslog Message

No sparecore disk was found for host %d.

Parameters

host (INT): Host for which no sparecore disk was found.

coredump.host.spare.save

Severity

INFORMATIONAL

Description

This message occurs to tell you which disk was identified as the sparecore disk at boot/takeover time.

Corrective Action

(None).

Syslog Message

Disk %s was identified as the sparecore disk at boot/takeover time for host %d.

Parameters

diskname (STRING): Name of the sparecore disk. **host** (INT): Host that the sparecore disk belongs to.

coredump.host.spare.set

Severity

INFORMATIONAL

Description

This message occurs when a disk is identified as a sparecore disk and the host's sparecoreinfo is updated during assimilation.

Corrective Action

(None).

Syslog Message

(None).

Parameters

disk (STRING): Name of the sparecore disk **host** (INT): Host whose sparecoreinfo was updated.

coredump.job events

coredump.job.notstarted

Severity

ERROR

Description

This message occurs when the system can not automatically save a core failed.

Corrective Action

Use the 'system node coredump save' command to save the core.

Syslog Message

(None).

Parameters

(None).

coredump.job.notswitchedback

Severity

ERROR

Description

This message occurs when the system cannot automatically save cores because a MetroCluster(tm) switchback was not performed.

Corrective Action

Return storage to the MetroCluster member by using the "metrocluster switchback" command, and then use the "coredump save-all" command to save any unsaved cores.

Syslog Message

System cannot automatically save cores because a MetroCluster switchback was not performed.

Parameters

(None).

coredump.long events

coredump.long.queued.msg

Severity

NOTICE

Description

This message occurs when the coredump manager thread detects that a message has been queued longer than expected, as defined by an internal threshold. System features and performance are not affected.

Corrective Action

(None).

Syslog Message

Coredump manager starts processing a long queued message: "%s" queued "%lu" ms.

Parameters

```
message_type (STRING): Coredump message type.
queue_time (LONGINT): Message queued duration, in milliseconds.
threshold (LONGINT): Message queued threshold, in milliseconds.
```

coredump.long.running.msg

Severity

NOTICE

Description

This message occurs when the coredump manager thread has finished processing a message that took longer than expected, as defined by an internal threshold.

Corrective Action

(None).

Syslog Message

Coredump manager finished processing a long running message: %s took %lu ms.

Parameters

```
message_type (STRING): Coredump message type.
duration (LONGINT): Message processing duration, in milliseconds.
threshold (LONGINT): Message processing threshold, in milliseconds.
```

coredump.mcc events

coredump.mcc.nso.veto

Severity

INFORMATIONAL

Description

This message occurs when the coredump subsystem vetoes MetroCluster(tm) negotiated switchover because a coredump save is in progress.

Corrective Action

Use the "node coredump status" command to verify the completion of the active coredump save, or use the "-override-vetoes true" option when performing MetroCluster switchover. Using the "-override-vetoes true" option will abort the active coredump save.

Syslog Message

MetroCluster switchover vetoed because a coredump save was in progress.

Parameters

(None).

coredump.micro events

coredump.micro.completed

Severity

INFORMATIONAL

Description

Microcore generation has completed.

Corrective Action

(None).

Syslog Message

Microcore (%s) generation completed

Parameters

file (STRING): Pathname of microcore that was created

coredump.micro.failed

Severity

ERROR

Description

Microcore generation has failed.

Corrective Action

(Call support).

Syslog Message

Generation of microcore failed

Parameters

(None).

coredump.nosavecore events

coredump.nosavecore.noflush

Severity

NOTICE

Description

This message occurs when the process that saves a coredump is not able to flush to the boot device at the end of coredump.

Corrective Action

(None).

Syslog Message

Coredump was not able to flush the remaining data to the boot device. Error: %llu.

Parameters

dumpcore_error (LONGINTHEX): Coredump error code.

coredump.nvlog events

coredump.nvlog.replay.dump.dont

Severity

NOTICE

Description

This message occurs when one or more unsuccessful attempts have been made to process information in the WAFL ® NVlog after a previous failure. The number of allowed core dumps has been exceeded and this core dump will not be taken.

Corrective Action

The node will reboot. No further action is necessary.

Syslog Message

Core dump was not taken for the latest failure while processing the WAFL NVlog.

Parameters

(None).

coredump.save events

coredump.save.aborted

Severity

NOTICE

Description

This message occurs when the savecore operation is aborted while saving a kernel core. The core is preserved for a future iteration of savecore.

Corrective Action

(None).

Syslog Message

%s processing savecore aborted%s%s.

Parameters

file (STRING): Name of the kernel core file being created.

operation (STRING): Type of operation that is being attempted when the abort occurs.

action (STRING): Type of action being taken when the abort occurs.

coredump.save.attempts.count

Severity

NOTICE

Description

Previous attempts to save this core have failed, either due to reboots or panics. To prevent a panic loop, savecore is aborting this attempt.

Corrective Action

Use either "savecore -f" to save the core, or "savecore -k" to erase the core.

Syslog Message

Too many attempts to save this core

Parameters

(None).

coredump.save.completed

Severity

NOTICE

Description

This message occurs when all the core segments belonging to a coredump have been saved.

Corrective Action

(None).

Syslog Message

Saved core %s for node %s in %llu seconds. Core size is %llu bytes.

Parameters

file (STRING): Primary core segment file that was created. **node** (STRING): Name of the node whose core was saved.

seconds (LONGINT): Number of seconds spent on saving all the core segments.

size (LONGINT): Size of primary core segment in bytes.

chksum (STRING): Checksum of primary core segment file's data.

coredump.save.denied

Severity

INFORMATIONAL

Description

This message occurs when the coredump subsystem cannot finish saving a core because an aggregate relocation or a takeover is in progress. The system cannot save a core while either an aggregate relocation or a takeover is in progress.

Corrective Action

(None).

Syslog Message

Coredump save disallowed because an aggregate relocation or a takeover in progress.

Parameters

(None).

coredump.save.disk.missing

Severity

INFORMATIONAL

Description

A disk being used by coredump is now missing. This could be due to the ownership of the disk changing, the disk being removed, etc. Most savecore operations will proceed, but if further errors are encountered, or an expected core cannot be found, corrective action will be necessary.

Corrective Action

If this disk has failed, no action is possible. If this message was seen while running a "savecore -s", "savecore -i", or "savecore -l" operation, replace the missing disk. This might be done by undoing the ownership change, or reinserting the missing disk. If this message was seen while saving the core, and no further errors were seen, no action is necessary. If more errors were seen, replace the missing disk as above, and run "savecore" again.

Syslog Message

Disk %s being used by coredump is missing

Parameters

disk (STRING): Name of the missing disk

coredump.save.diskio.zone

Severity

ERROR

Description

A disk IO operation was attempted outside of the allowed regions on the disk. This behavior indicates a corrupt core, and it will be deleted.

Corrective Action

(None).

Syslog Message

IO to %d block(s) starting at %llu on disk %s is not allowed

Parameters

count (INT): Number of blocks in IO request start (LONGINT): Starting block number on the disk disk (STRING): Name of the disk causing trouble

coredump.save.error

Severity

NOTICE

Description

A correctable error was encountered while saving the core. Savecore will continue saving other cores.

Corrective Action

Once savecore finishes, address errors that may have appeared, and restart savecore.

Syslog Message

%s processing encountered error

Parameters

file (STRING): The core file that savecore was attempting to create

coredump.save.failed

Severity

NOTICE

Description

An unrecoverable error was encountered while saving the core. This core will be deleted, and savecore will continue saving other cores.

Corrective Action

(None).

Syslog Message

%s processing failed

Parameters

file (STRING): The core file that savecore was attempting to create

coredump.save.internal.error

Severity

ERROR

Description

An internal coredump error was encountered. This indicates the dumped core is corrupt, and will be deleted.

Corrective Action

(None).

Syslog Message

Internal coredump error

Parameters

(None).

coredump.save.nospace

Severity

ALERT

Description

This message occurs when there is not enough space in the root volume to save the core. Savecore is making a worst-case estimate when determining how much space might be needed to save the core, and does not start unless that much space is available.

Corrective Action

Try performing the following steps to make sufficient room in root volume: Delete old or unneeded core files by using the "coredump delete" command. Delete old or unneeded core file segments by using the "coredump segment delete" command. Delete any Snapshot® copies that include the deleted files. Adjust minimum free space on the root file system by using "coredump config modify" command. Once there is sufficient room, take the following steps to save the cores: To save all core files using "coredump save-all" command, run the "coredump status -instance" command and ensure that "Space Available On Internal Filesystem" is greater than "Space Needed to Save All Unsaved Cores" plus "Minimum Free Bytes on Root Filesystem". To save a specific core file, run the "coredump save" command, when available space of "Space Needed To Save Core" (from the "coredump show" command) plus "Minimum Free Bytes on Root Filesystem" is sufficient.

Syslog Message

Available space (%Ilu %dKB blocks) is not enough to save the core image (requires up to %Ilu blocks) and maintain the minimum free space of %Ilu blocks.

Parameters

avail (LONGINT): Number of blocks available for saving the core image.

blocksize (INT): Block size in kilobytes.

needed (LONGINT): Number of blocks needed for saving the core image.

minfree (LONGINT): Number of blocks reserved for normal system operation.

coredump.save.partial.not.ok

Severity

INFORMATIONAL

Description

Can not save partial core that was dumped using disks with different sizes. Savecore can not determine the size of the missing disks. Attempting a save in this condition will most likely end up in an error.

Corrective Action

Run "savecore -k" to delete all unsaved cores.

Syslog Message

Cannot save partial core (%s) that used disks with different sizes, missing %llu of %llu disks

Parameters

panic (STRING): Panic string of the partial core.missing (LONGINT): The number of disks that are missing total (LONGINT): Total number of disks used in this dump

coredump.save.read.header.failed

Severity

NOTICE

Description

An error was encountered while trying to read the core header block from disk.

Corrective Action

(None).

Syslog Message

Could not read core header block (%llu) from disk %s

Parameters

block (LONGINT): Block number being searched for the core header **disk** (STRING): Name of the disk that could not be read

coredump.save.started

Severity

INFORMATIONAL

Description

This message occurs when the savecore operation starts saving a kernel core.

Corrective Action

(None).

Syslog Message

Saving %Ilu MB to %s via %s ("%s") for node %s.

Parameters

size (LONGINT): Number of MB being saved.

file (STRING): Name of the kernel core file to be created.

dumpcoretype (STRING): Kernel coredump type.

panic (STRING): Panic string of the kernel core being saved.

node (STRING): Name of the node whose core is being saved.

coredump.segment events

coredump.segment.auto.fail

Severity

NOTICE

Description

This message occurs when the system enounters an error while trying to send a core segment request.

Corrective Action

(None).

Syslog Message

Failed to start automatic segmenting for core file, %s, for host %d.

Parameters

file (STRING): Name of the core file that would have been segmented.

host (INT): Host that owns the core file.

coredump.segment.auto.pfail

Severity

INFORMATIONAL

Description

This message occurs when the system cannot start the segmenting of a core file because the node is no longer in takeover mode.

Corrective Action

(None).

Syslog Message

Cannot start segmenting a core file, %s. Node is no longer in takeover mode.

Parameters

file (STRING): Name of core file that would have been segmented.

coredump.segment.completed

Severity

NOTICE

Description

This message occurs when the segmenting of a full core file has been completed.

Corrective Action

(None).

Syslog Message

Saved core segment %s for node %s. Core size is %llu bytes and core data checksum is %s.

Parameters

file (STRING): Name of the core file segmented.

node (STRING): Name of the node whose core segment was saved.

size (LONGINT): Size of core segment in bytes.

chksum (STRING): Checksum of the core segment file's data.

coredump.shutdown events

coredump.shutdown.trace

Severity

NOTICE

Description

This message occurs when a core is about to be generated. Durations of various activities at that time are reported.

Corrective Action

(None).

Syslog Message

coredump shutdown times: kmod dumper start %llu, panic_info set %llu, sf_dumpcore sent %llu, sparecore id sent %llu, fmot outage info sent %llu, disk dump start done %llu, coredump begin %llu (all in msec).

Parameters

kmodDumperStartTime (LONGINT): Duration from panic start to dump processing start, in milliseconds. **panicInfoTime** (LONGINT): Duration until panic information is collected, in milliseconds.

sfDumpcoreSentTime (LONGINT): Duration until SF_DUMPCORE state is sent over the interconnect, in milliseconds.

sparecoreSentTime (LONGINT): Duration for sending the sparecore ID over the interconnect, in milliseconds.

fmotOutageSentTime (LONGINT): Duration for sending FMOT (Failover Monitor Outage Tracker) Outage information over the interconnect, in milliseconds.

diskDumpStartTime (LONGINT): Duration until disk dump start stage, in milliseconds.

coredumpBeginTime (LONGINT): Duration until the start of the actual core dump, in milliseconds.

coredump.spare events

coredump.spare.abort

Severity

INFORMATIONAL

Description

This message occurs when coredump attempts to terminate any sparecore dump that might be in progress on the partner. This process can take up to 60 seconds. During this time, other coredump operations are not serviced.

Corrective Action

(None).

Syslog Message

Pausing to abort partner sparecore dump because %s.

Parameters

reason (STRING): Reason for aborting the partner sparecore dump.

coredump.spare.abort.failed

Severity

ERROR

Description

Unable to reserve the sparecore disk. This disk cannot be used by RAID until it is successfully reserved.

Corrective Action

If the other partner can be booted, do a giveback. Otherwise, periodic attempts will automatically be made to reserve the disk in question.

Syslog Message

Sparecore disk could not be reserved

Parameters

(None).

coredump.spare.abort.release

Severity

NOTICE

Description

This message occurs when the system enounters an error while trying to release the disk reservation from a disk.

Corrective Action

(None).

Syslog Message

Could not release disk reservation from disk %s (0x%x)

Parameters

diskname (STRING): Name of the disk whose disk reservation could not be released. **diskid** (INTHEX): ID of the disk whose disk reservation could not be released.

coredump.spare.dump

Severity

INFORMATIONAL

Description

This message occurs to tell you which disk was used as the sparecore disk at dumpcore time.

Corrective Action

(None).

Syslog Message

Disk %s was used as the sparecore disk at dumpcore time.

Parameters

diskname (STRING): Name of the sparecore disk.

coredump.spare.invalid.size

Severity

ERROR

Description

This message occurs when coredump subsystem encounters a spare disk with an invalid size. If an unsaved core file exists on this disk, it will be deleted because it can no longer be saved.

Corrective Action

Run the "storage disk show -disk disk_name" command to make sure that the disk is still connected as a spare disk. If so, replace the disk. If not, the disk is part of an aggregate or is in the process of being assigned to one, and no action is required.

Syslog Message

sparecore disk: %s has invalid size: %llu, skipping it from all coredump subsystem operations

Parameters

disk (STRING): Name of the disk.

size (LONGINT): Size available on the disk, reported by RAID.

coredump.sparecore events

coredump.sparecore.killed

Severity

INFORMATIONAL

Description

Sparecore was aborted by partner.

Corrective Action

(None).

Syslog Message

Sparcore was aborted by partner.

Parameters

(None).

coredump.sparecoreinit events

coredump.sparecoreinit.times

Severity

NOTICE

Description

This message occurs when sparecore initialization is completed. Durations of constituent activities within sparecore initialization are reported.

Corrective Action

(None).

Syslog Message

sparecore_init: update firmware %llu msec, write partial headers %llu msec, clear abort area %llu msec, write node status %lld msec.

Parameters

fwUpdateTime (LONGINT): Time taken to update firmware, in milliseconds. **partialHeaderTime** (LONGINT): Time taken to write partial headers, in milliseconds. **clearAbortAreaTime** (LONGINT): Time taken to clear sparecore abort area, in milliseconds. **writeNodeStatusTime** (LONGINT): Time taken to write the node status information to the sparecore disk, in milliseconds, if any.

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.