



air events

ONTAP EMS reference

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air events

air.certify events

air.certify.cancel

Severity

ALERT

Description

This message occurs when a metadata inconsistency is discovered inside a file system feature that is read-only and therefore cannot be immediately corrected. One or more processes in ONTAP® software might have been canceled when they encountered the inconsistency.

Corrective Action

No immediate corrective action is necessary, because the ONTAP process that encountered the inconsistency has been automatically canceled. If the condition persists, contact NetApp technical support for assistance.

Syslog Message

AIR certification of %s failed: %s, %s ; message %s canceled for subtype %d

Parameters

fh (STRING): File handle of the object with an inconsistency.
condition (STRING): Specific metadata validation test that failed.
source (STRING): Location of the failing metadata validation test.
msg (STRING): The ONTAP process that encountered the inconsistency.
subtype (INT): Subtype of the inode encountering the inconsistency.

air.cleared events

air.cleared.qtm.entry

Severity

NOTICE

Description

This message occurs when the Automated Incremental Repair (AIR) subsystem clears an entry in the qtree metafile because of inconsistent data within that entry.

Corrective Action

(None).

Syslog Message

Qtree entry certification failed at %s. In the qtree metafile %d, AIR cleared an entry that corresponds to the TID %d in volume %s.

Parameters

source (STRING): Location where qtree entry certification failed.
inode (INT): Inode number of qtree metafile.

tid (INT): TID.

volume (STRING): Name of the volume.

air.corrected events

air.corrected.qtree.tid

Severity

NOTICE

Description

This message occurs when the Automated Incremental Repair (AIR) subsystem repairs an inode having a corrupted qtree ID.

Corrective Action

(None).

Syslog Message

Qtree entry certification failed at %s. AIR repaired qtree inode %d: old TID %d, new TID %d, fgindex %d.

Parameters

source (STRING): Location where qtree entry certification failed.

inode (INT): Inode number.

old_tid (INT): Old TID.

new_tid (INT): New TID.

fgindex (INT): Fgindex of the qtree root.

air.disable events

air.disable.async.delete.cli

Severity

ALERT

Description

This message occurs when any inconsistency is found with the async delete trashbin directory of a volume.

Corrective Action

The "asynchronous directory delete from the client" feature has been disabled on this volume. To re-enable the feature, use the (privilege: advanced) "volume file async-delete client enable" command

Syslog Message

The "async directory delete from the client" feature was disabled in volume %s, after an inconsistency was detected with the trashbin directory.

Parameters

volume (STRING): Name of the volume.

source (STRING): Location of the failing metadata validation.

air.disable.preserve.unlink

Severity

NOTICE

Description

This message occurs when any inconsistency is found with the trash directory that is used for the preserve unlink option of a volume. Then, the preserve unlink option is disabled for that volume. The trash directory that is used for the preserve unlink option is used to preserve deleted files for NFSv41 when they have existing share locks.

Corrective Action

None. The system reverts to the behavior it used before the preserve unlink option was enabled; that is, it will not preserve deleted files with share locks.

Syslog Message

The preserve unlink option of volume "%s", was disabled after an inconsistency with the trash directory was detected.

Parameters

volume (STRING): Name of the volume.

source (STRING): Location of the failing metadata validation.

air.enabled events

air.enabled.fg.qtree

Severity

NOTICE

Description

This message occurs in a FlexGroup, when the qtree support is enabled on the volume, but disabled on one or more constituent volumes. ONTAP® software automatically enabled the qtree support on the relevant constituent volumes.

Corrective Action

This message indicates that the qtree support is enabled on the volume, but disabled in one or more constituents within the FlexGroup. ONTAP® software automatically enabled the qtree support in the relevant constituent FlexGroup volumes.

Syslog Message

Enabled qtree support in FlexGroup constituent volume %s after detecting inconsistency in %s.

Parameters

volume (STRING): Name of the volume.

source (STRING): Location of the failing metadata validation.

air.evicted events

air.evicted.qtm.entry

Severity

NOTICE

Description

This message occurs when the Automated Incremental Repair (AIR) subsystem evicts an entry in the qtree metafile because of inconsistent data within that entry.

Corrective Action

(None).

Syslog Message

Qtree entry certification failed at %s. In the qtree metafile %d, AIR evicted an entry that corresponds to the TID %d in volume %s.

Parameters

source (STRING): Location where qtree entry certification failed.

inode (INT): Inode number of the qtree metafile.

tid (INT): TID.

volume (STRING): Name of the volume.

air.fc.events

air.fc.origin.corrupt

Severity

ALERT

Description

This message occurs when inconsistencies are detected in the origin of this FlexCache® volume. The affected files remain inaccessible from this FlexCache volume until the corrective action is taken.

Corrective Action

If the origin of this FlexCache volume is a FlexVol® volume, then run wafliron on the origin FlexVol volume.

If the origin is a FlexGroup volume, then list the affected files from a NFS or a CIFS client on the origin volume. For more information or assistance, contact NetApp technical support.

Syslog Message

The fh %s in Origin of this FlexCache volume %s%s contains inconsistencies.

Parameters

fh (STRING): File handle of the affected inode.

vol (STRING): FlexCache volume name.

volident (STRING): Unique identifier for the volume if volume name alone is insufficient.

air.qtm.events

air.qtm.rebuild.scan.state

Severity

NOTICE

Description

This message occurs when the state of a scanner used to rebuild the qtree metafile changes.

Corrective Action

(None).

Syslog Message

Scanner to rebuild the qtree metafile is %s.

Parameters

state (STRING): State of the scanner.

air.removed events

air.removed.remote.lck.entry

Severity

NOTICE

Description

This message occurs when there is an inconsistency in the remote lock entry metafile. The inconsistent entry is removed upon detection.

Corrective Action

(None).

Syslog Message

Remote lock entry %s certification failed: expression %s, source %s, state (%s).

Parameters

entry (STRING): Lock entry type and origin file ID pair describing the entry.

rlem (STRING): Describes the metafile to which this lock entry belongs to.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

state (STRING): Description of the remote lock entry metafile metadata state that was found to be inconsistent.

air.repair events

air.repair.prersist.lock.entry

Severity

NOTICE

Description

This message occurs when there is an inconsistency in the persistent lock entry metafile. The inconsistent entry is repaired upon detection if there is a corresponding in-core record.

Corrective Action

(None).

Syslog Message

Persistent lock entry %s certification failed: Condition: %s, source: %s, state: %s.

Parameters

entry (STRING): Lock entry type and origin file ID pair describing the entry.

condition (STRING): Initial validation test that fails.

source (STRING): Location of the failing metadata validation test.

state (STRING): Description of the remote lock entry metafile metadata state that is found to be inconsistent.

air.repaired.events

air.repaired.bucket.header

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in a metadata bucket header record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

TOC metadata (%s) has an inconsistent record for the bucket upload table (%s). %s.

Parameters

toc_fh (STRING): File handle of the TOC metadata file.

upload_table_fh (STRING): File handle of the bucket upload table file.

state (STRING): Description of the metadata that was found to be inconsistent.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

air.repaired.cbmap

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the type/subtype of CloudBlockMap metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

CloudBlockMap metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the CloudBlockMap metafile that was found to be inconsistent.

air.repaired.cbmap.entry

Severity

NOTICE

Description

This message occurs when context mismatch is discovered in any entry of CloudBlockMap metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

%s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the metafile that was found to be inconsistent.

pvpn (LONGINT): Inconsistency found in cbmap entry of this PVPN.

air.repaired.cbmap.header

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the header of CloudBlockMap metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

%s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the metafile that was found to be inconsistent.

air.repaired.chapter.entry

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a metadata record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Chapter metadata (%s) has inconsistent record for object (%s). Source %s (%s).

Parameters

chapter_fh (STRING): File handle of the metadata file.
object_fh (STRING): File handle of the object.
source (STRING): Location of the failing metadata validation test.
condition (STRING): Initial metadata validation test that failed.
state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbFh

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in a metadata bucket header record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in the css snapdb filehandle information of the TOC metadata %s belonging to bucket %u is being repaired.

Parameters

toc_fh (STRING): File handle of the TOC metafile.
bucket_num (INT): Bucket number.
state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbHdr

Severity

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in the user header of the css snapdb metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in user header of css snapdb metafile %s belonging to bucket %u is being repaired.

Parameters

snapdb_fh (STRING): File handle of the snapdb metafile.

bucket_num (INT): Bucket number.

state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbInode**Severity**

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in the css snapdb metafile inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in the css snapdb inode information of the TOC metadata %s belonging to bucket %u is being repaired.

Parameters

toc_fh (STRING): File handle of the TOC metafile.

bucket_num (INT): Bucket number.

state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.cssSnapdbTid**Severity**

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in the qtree id of the css snapdb metafile inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Inconsistency in the TID of the css snapdb metafile inode %s belonging to bucket %u is being repaired.

Parameters

snapdb_fh (STRING): File handle of the snapdb metafile.

bucket_num (INT): Bucket number.

state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.dir.hole

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the hole list of a directory. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Directory hole list %s certification failed: %s, %s.

Parameters

fh (STRING): File handle of the affected directory.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

air.repaired.dir.inode

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a directory. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Directory %s certification failed: %s, %s.

Parameters

fh (STRING): File handle of the affected directory.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

air.repaired.enc.vvol.info

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the encryptable aggregate metafile inodes encrypted flexvol information which stores vvol_btid and vvol_fid. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Inode %s certification failed: %s, %s.

Parameters

fh (STRING): File handle of the affected inode.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

air.repaired.fabriclink

Severity

NOTICE

Description

This message occurs when a metadata inconsistency is discovered and repaired within an object storage replication data structure.

Corrective Action

(None).

Syslog Message

AIR repaired %s, condition %s at %s, object "%s"

Parameters

fh (STRING): File handle of the replication data structure that was found to be inconsistent.

expr (STRING): The nature of the inconsistency that was discovered and repaired.

source (STRING): Location where the metadata inconsistency was detected.

object (STRING): Optionally represents the name of a particular object whose replication state was affected.

air.repaired.fc.dir

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in any directory in the volume. The inconsistency is repaired automatically as soon as it is discovered.

Corrective Action

(None).

Syslog Message

Evicted inconsistent directory with fh %s due to corruption in volume %s.

Parameters

fh (STRING): File handle of the affected inode.

volume (STRING): Name of the volume.

air.repaired.fc.qtree.id

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the qtree ID of an inode. The inconsistent inode is evicted automatically as soon as it is discovered.

Corrective Action

(None).

Syslog Message

Evicted inconsistent inode with fh %s due to a corrupted qtree ID: qtree ID %d, volume %s.

Parameters

fh (STRING): File handle of the affected inode.

tid (INT): Qtree ID.

volume (STRING): Name of the volume.

air.repaired.hardlink.i2p

Severity

NOTICE

Description

This message occurs when the AIR subsystem repairs an inconsistent inode and previously unreachable hard links are returned to availability.

Corrective Action

(None).

Syslog Message

AIR repaired inconsistent hardlink for inode %d: %d %d %s

Parameters

inode (INT): Inode number.

parent_inode (INT): Parent inode number.

link_count (INT): Inode link count.

volume (STRING): Name of the volume.

air.repaired.label.database

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered within a WAFL label database. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Label database %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the metadata that was found to be inconsistent.

air.repaired.lsm.bfc.lkp**Severity**

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM BFC Lookup file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM BFC Lookup file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.

block (LONGINT): Block number of the inconsistent block.

source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.bloom.file**Severity**

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM Bloomfilter file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM Bloomfilter file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.

block (LONGINT): Block number of the inconsistent block.

source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.info.file

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the LSM Info file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM Info file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.

block (INT): Block number of the inconsistent block.

source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.keyspc.file

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM Keyspace Information file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Inconsistent LSM Keyspace Information metafile on aggregate "%s" was repaired. Source %s.

Parameters

aggregate (STRING): Name of the aggregate.

source (STRING): Location of the failing metadata validation test.

air.repaired.lsm.lookup.file

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the LSM Lookup file. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

LSM Lookup file %s was corrected at block %d. Source %s.

Parameters

fh (STRING): File handle of the affected file.

block (LONGINT): Block number of the inconsistent block.

source (STRING): Location of the failing metadata validation test.

air.repaired.merkle**Severity**

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata (Merkle tree file). Repairs to the Merkle tree file have automatically been started.

Corrective Action

(None).

Syslog Message

Merkle file "%s" certification failed: %s, directory ID (%llu), branch ID (%llu), buffer level %d, fbn (%llu), Merkle tree level (%d)

Parameters

fh (STRING): File handle of the Merkle file that needs repairs.

condition (STRING): Initial validation test that failed.

dir_id (LONGINT): Slice directory ID of the Merkle file.

branch_id (LONGINT): Slice branch ID of the Merkle file.

level (INT): Buffer level of the Merkle file block.

fbn (LONGINT): File block number (FBN) of the Merkle file.

merkle_level (INT): Merkle checksum level of the Merkle file.

source (STRING): The location of the failing validation test.

air.repaired.mpu.catalog**Severity**

NOTICE

Description

This message occurs when ONTAP® discovers an inconsistency in a multipart upload catalog record of a bucket upload table. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Bucket upload table (%s) has an inconsistent record for the multipart upload catalog (%s). %s.

Parameters

upload_table_fh (STRING): File handle of the bucket upload table file.

mp_catalog_fh (STRING): File handle of the multipart catalog file.

state (STRING): Description of the metadata that was found to be inconsistent.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

air.repaired.multipart.database

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata of a multipart inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.

condition (STRING): The database validation test that failed.

source (STRING): The location of the failing database validation test.

state (STRING): A description of the metadata that was found to be inconsistent.

air.repaired.multipart.inode

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a multipart inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s

Parameters

fh (STRING): File handle of the affected file.

condition (STRING): The initial multipart inode validation test that failed.
source (STRING): The location of the failing multipart inode validation test.

air.repaired.multipart.record

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata of the multipart inode. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The initial record validation test that failed.
source (STRING): The location of the failing record validation test.
state (STRING): A description of the record that was found to be inconsistent.

air.repaired.multipart.rectify

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the rectification metadata for a multipart file. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.
condition (STRING): The initial record validation test that failed.
source (STRING): The location of the failing record validation test.
state (STRING): A description of the record that was found to be inconsistent.

air.repaired.multipart.userheader

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the userheader section of a multipart file. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Multipart inode %s userheader certification failed: %s, %s

Parameters

fh (STRING): File handle of the affected file.

condition (STRING): The initial userheader validation test that failed.

source (STRING): The location of the failing userheader validation test.

air.repaired.name.info.flags

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the name information flags of a directory. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Name information flags for directory entry %s corrected at block %d and index %d. Source %s.

Parameters

fh (STRING): File handle of the affected directory.

block (INT): Block number that contains the affected entry

index (INT): Location within the block that holds the affected entry

source (STRING): Location of the failing metadata validation test.

air.repaired.pct.entry

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a metadata record. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

PCT metadata has inconsistent record for bucket (%u) file (%u). Source %s (%s, %s).

Parameters

bucketid (INT): Bucket identifier.

fileid (INT): File identifier.

source (STRING): Location of the failing metadata validation test.

condition (STRING): Initial metadata validation test that failed.

state (STRING): Description of the metadata that was found to be inconsistent.

air.repaired.qtree.id

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the qtree ID of an inode. The inconsistency is repaired automatically as soon as it is discovered.

Corrective Action

(None).

Syslog Message

Repaired inconsistent inode with fh %s due to a corrupted qtree ID: Old qtree ID %d, new qtree ID %d, volume %s.

Parameters

fh (STRING): File handle of the affected inode.

old_tid (INT): Old qtree ID.

new_tid (INT): New qtree ID.

volume (STRING): Name of the volume.

air.repaired.qtree.metafile

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in a qtree metafile. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

Qtree metafile %s

Parameters

details (STRING): Description of the metadata failure that has been fixed.

air.repaired.qtree.root

Severity

NOTICE

Description

This message occurs when the system discovers an inconsistency between the qtree file root and a qtree metafile entry. The system repairs this inconsistency automatically, as soon as it detects it.

Corrective Action

(None).

Syslog Message

Qtree root %s certification failed: %s, %s corrections: %s.

Parameters

fh (STRING): File handle of the affected qtree root.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

state (STRING): Description of the metadata that has been fixed.

air.repaired.ral.clone.exp**Severity**

NOTICE

Description

This message occurs when an inconsistency is discovered between the source, clone created via ral retrieve and the clone expansion structure in source's remote state.

Corrective Action

(None).

Syslog Message

Remote RAL Clone %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected clone.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the source and clone files.

air.repaired.rclone.database**Severity**

NOTICE

Description

This message occurs when an inconsistency is discovered within the WAFL Remote Clone Database. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote Clone Database %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the metafile that was found to be inconsistent.

air.repaired.rclone.record

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in any record of the WAFL Remote Clone Database. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote Clone Record %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected record.

condition (STRING): The initial record validation test that failed.

source (STRING): The location of the failing record validation test.

state (STRING): A description of the entry that was found to be inconsistent.

air.repaired.remote.index

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered within the WAFL RAL index. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote index %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): The RAL index record that was discovered to be incorrect.

air.repaired.remote.inode

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered between a file and its RAL state within WAFL. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote inode %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the RAL state metadata that was found to be inconsistent.

air.repaired.remote.metafile

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered within a WAFL RAL metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the RAL metafile that was found to be inconsistent.

air.repaired.remote.tallies

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the tallies in Remote Entry metafile. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the RAL metafile that was found to be inconsistent.

air.repaired.remote.writeback.dirtylist.record**Severity**

NOTICE

Description

This message occurs when an inconsistency is discovered between a file and its writeback metadata within WAFL. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote inode %s writeback certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected file.

condition (STRING): The initial metadata validation test that failed.

source (STRING): The location of the failing metadata validation test.

state (STRING): A description of the writeback metadata that was found to be inconsistent.

air.repaired.rlem.tallies**Severity**

NOTICE

Description

This message occurs when an inconsistency is discovered in the tallies in Remote Lock Entry metafile(RLEM). The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

Remote lock entry metafile %s certification failed: %s, %s (%s)

Parameters

fh (STRING): File handle of the affected metafile.

rlem (STRING): Describes the metafile to which this lock entry belongs to.

condition (STRING): The initial metadata validation test that failed.
source (STRING): The location of the failing metadata validation test.
state (STRING): A description of the RLEM that was found to be inconsistent.

air.repaired.slice

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in the metadata (slice file). Repairs to the slice file from the secondary copy have automatically been started.

Corrective Action

(None).

Syslog Message

Slice file "%s" certification failed: %s, dir ID (%llu), branch ID (%llu), level %d, fbn (%llu)

Parameters

fh (STRING): File handle of the slice file that needs repairs.
condition (STRING): The initial validation test that failed.
dir_id (LONGINT): Slice directory ID of the slice file.
branch_id (LONGINT): Slice branch ID of the slice file.
level (INT): Buffer level of the slice file block.
fbn (LONGINT): File block number (FBN) of the slice file.
source (STRING): The location of the failing validation test.

air.repaired.snapinfo.block

Severity

NOTICE

Description

This message occurs when the system detects an inconsistency in the persistent lock entry metafile. The inconsistent entry has been removed.

Corrective Action

(None).

Syslog Message

Repaired inconsistent block (%s) found in Snapinfo metafile on volume "%s".

Parameters

state (STRING): Description of the Snapinfo metafile block that was found to be inconsistent.
volume (STRING): Name of the volume.

air.repaired.ssm.iftp.inode

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered in ssm iftp metafile. The inconsistency is repaired automatically as soon as it is detected.

Corrective Action

(None).

Syslog Message

AIR vlist metafile %s certification failed: %s, %s.

Parameters

fh (STRING): File handle of the affected metafile.

condition (STRING): Initial metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

air.repaired.toc.entry

Severity

ALERT

Description

This message occurs when an inconsistency is discovered in a metadata record. The inconsistency is automatically repaired immediately upon detection. But it can leave behind lost objects that are no longer pointed to by the namespace.

Corrective Action

The command "object-store-server lost-object-recovery start" under diag privilege can be used to add lost objects back into namespace. The progress of this command can be monitored using "object-store-server lost-object-recovery show" command.

Syslog Message

TOC metadata (%s) has inconsistent record for chapter (%s). %s (%s).

Parameters

toc_fh (STRING): File handle of the TOC metadata file.

chapter_fh (STRING): File handle of the chapter metadata file.

state (STRING): Description of the metadata that was found to be inconsistent.

condition (STRING): Initial metadata validation test that failed.

air.repaired.user.ind

Severity

ERROR

Description

This message occurs when an inconsistency is discovered in the user indirect block. The inconsistency is repaired automatically immediately upon detection.

Corrective Action

(None).

Syslog Message

User indirect %s certification failed: %s (%s)

Parameters

fh (STRING): File handle of the affected file.

condition (STRING): Initial metadata validation test that failed.

state (STRING): Description of the user indirect block that was found to be inconsistent.

source (STRING): Location of the failing metadata validation test.

air.repaired.vplus

Severity

NOTICE

Description

This message occurs when an indexed storage tree is rebuilt to repair a metadata inconsistency that was discovered.

Corrective Action

(None).

Syslog Message

AIR vplus rebuild of %s completed for subtype %d

Parameters

fh (STRING): File handle of the storage tree.

subtype (INT): Subtype of the inode encountering the inconsistency.

air.vplus events

air.vplus.certify.issue

Severity

NOTICE

Description

This message occurs when an inconsistency is discovered inside an indexed storage tree. The inconsistency is automatically repaired immediately upon detection.

Corrective Action

(None).

Syslog Message

AIR vplus certification of %s failed: %s, %s for subtype %d

Parameters

fh (STRING): File handle of the storage tree.

condition (STRING): Specific metadata validation test that failed.

source (STRING): Location of the failing metadata validation test.

subtype (INT): Subtype of the inode encountering the inconsistency.

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