



## **air events**

### **ONTAP 9.15.1 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 wafiron 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.prsist.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.

**pvbn** (LONGINT): Inconsistency found in cbmap entry of this PVBN.

**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.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\_bt看id 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.metfile

### 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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