



Troubleshooting transition issues

ONTAP 7-Mode Transition

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Troubleshooting transition issues

You should be aware of how to troubleshoot issues with the 7-Mode Transition Tool and where to look for log files. When you use the 7-Mode Transition Tool, you might see error messages that identify the issue and provide the solution.

Continuing with the transition if ignorable errors occur

During the transition, you might encounter some errors that block the transition. You can choose to ignore some of these errors by acknowledging the issues through the 7-Mode Transition Tool CLI. You should rerun the failed operation after ignoring the error to continue with the transition.

When you acknowledge an error, it means that you have understood the impact of these errors and acknowledged them.

You must rerun the transition operation after ignoring the error. In some cases, after you acknowledge the issue, Data ONTAP performs corrective actions on the affected aggregates and volumes when the operation is run the next time.

Steps

1. If the transition operation results in any ignorable errors, run the following command from the 7-Mode Transition Tool CLI:

```
transition cft ignorableerrors add -p project_name -c ignorable_errorcategory
```

ignorable_errorcategory is the type of error that you can ignore.

[Ignorable errors during transition](#)

2. Rerun the transition operation.

The blocking error changes to a warning and the error is shown as **acknowledged**. You can continue the transition with the warning.

Ignorable errors during transition

You might encounter some ignorable errors during the transition. These errors can occur during the precheck, cabling, import, or commit operation of a copy-free transition project. You must acknowledge these errors before continuing with transition.

When you add any ignorable error category to the copy-free transition project by using the 7-Mode Transition Tool CLI, it means that you have understood the impact of the error. You must rerun the transition operation after ignoring the error. At this time, the blocking error changes to a warning message, and the error is shown as “acknowledged”. You can continue the transition with the warning.

Precheck operation: ignorable error categories

Category	When the error is displayed
<code>ignore-source-not-multipath</code>	7-Mode disk shelves are not in a multipath configuration.
<code>ignore-target-not-multipath</code>	Disk shelves in the target cluster nodes are not in a multipath configuration.
<code>ignore-source-storage-fault</code>	7-Mode disk shelves have some fault (as displayed in the output of the <code>storage show fault</code> command).
<code>ignore-target-storage-fault</code>	Disk shelves in the target cluster nodes have some fault (as displayed in the output of the <code>system node run -node node_name -command storage show fault</code> command).
<code>ignore-target-port-requirement</code>	Target cluster nodes do not have a sufficient number of ports available to connect the 7-Mode disk shelves.
<code>ignore-aggr-space-less-than-5-percent</code>	7-Mode aggregates are out of space because the free space in the 7-Mode aggregates is less than 5% of physical space.
<code>ignore-aggr-logical-space-more-than-97-percent</code>	7-Mode aggregates are out of space because the logical space in the aggregate is more than 97% full.
<code>ignore-aggr-snapshot-spill-more-than-4-percent</code>	7-Mode aggregates are out of space because Snapshot copies occupy more space than that allocated for the Snapshot copy reserve.
<code>ignore-aggr-physical-space-more-than-89-percent-and-snapshot-spill</code>	7-Mode aggregates are out of space because the total used physical space is more than 89% and the Snapshot copies occupy more space than that allocated for the Snapshot copy reserve.
<code>ignore-volumes-with-file-gurantee</code>	7-Mode volumes have space guarantee set to <code>file</code> , which is not supported in ONTAP.
<code>ignore-volumes-with-disabled-gurantees</code>	Space guarantee of volumes is currently disabled due to lack of space in the volumes.

Category	When the error is displayed
<code>nfs-qtrees-exported</code>	<p>Qtree export rules are present in the 7-Mode system.</p> <p>Acknowledging this error means that you have understood the differences in the qtree export rules between Data ONTAP operating in 7-Mode and ONTAP. You might have to perform some manual steps after the NFS exports rules are applied by the 7-Mode Transition Tool.</p> <p>NetApp KB Article 8010371:7MTT Precheck 10111 - Transitioning 7-Mode volumes that have qtree-level exports</p>
<code>ignore-configuration-limits-check</code>	<p>Objects and configurations to be transitioned exceed a certain limit. The storage cutover can take a long time and you must prepare for the downtime.</p> <p>NetApp KB Article 3014882: Considerations for reducing the storage cutover time during Copy-Free Transition</p>
<code>ignore-cifs-ad-domain-mismatch</code>	<p>The 7-Mode Transition Tool continues with the transition of the CIFS configuration even if the CIFS Active Directory domain of the 7-Mode system is different from the CIFS Active Directory domain of the target SVM.</p> <p>You must ensure that the CIFS Active Directory domains of the 7-Mode system and the target SVM are trusted domains. Otherwise, the transition of CIFS configurations to the target SVM fails.</p> <p>How to transition CIFS configurations when Active Directory Domain of CIFS server on 7-Mode and target SVM are different</p>

Cabling verification operation: ignorable error categories

Category	When the error is displayed
<code>ignore-missing-spare-disks</code>	<p>One or more 7-Mode spare disks are not detected by the target cluster nodes.</p>
<code>ignore-missing-degraded-aggr-disks</code>	<p>Cannot detect up to two disks from any of the 7-Mode RAID-DP RAID groups or one disk from any of the 7-Mode RAID-4 RAID groups on the target cluster nodes.</p> <p>Continuing with the transition makes such aggregates degraded after the aggregates are transitioned.</p>

Import operation: ignorable error categories

If you add an ignorable error category to the copy-free transition project during the import operation, Data ONTAP performs some corrective action on the aggregates and volumes in addition to changing the blocking error to a warning.

Category	When the error is displayed	Corrective action if the error is acknowledged and import operation is run again
<code>ignore-aggregates-with-32bit-snapshot-for-import</code>	32-bit Snapshot copies are detected in the 7-Mode aggregate.	32-bit Snapshot copies are deleted from all of the 7-Mode aggregates that are part of this project.
<code>transition-dirty-aggregates-during-import</code>	One of the transitioning aggregates was not cleanly shut down on the 7-Mode storage system.	All of the 7-Mode aggregates that were not cleanly shut down are transitioned. This might result in data loss after transition.
<code>ignore-aggregates-not-being-online-for-import</code>	The aggregate was not online when the 7-Mode storage system was halted.	All of the offline aggregates are brought online.
<code>ignore-volumes-with-32bit-snapshot-for-import</code>	32-bit Snapshot copies are detected in the 7-Mode volume.	32-bit Snapshot copies are deleted from all of the 7-Mode volumes that are part of this project.
<code>ignore-volumes-with-dirty-file-system-for-import</code>	One of the transitioning volumes was not cleanly shut down on the 7-Mode storage system.	All of the 7-Mode volumes that were not cleanly shut down are transitioned. This might result in data loss after transition.
<code>transition-offline-volumes-during-import</code>	The volume was not online when the 7-Mode storage system was halted.	All of the offline volumes are brought online.
<code>transition-restricted-volumes-during-import</code>	The volume was in the restricted state when the 7-Mode storage system was halted.	All of the restricted volumes are brought online.

Commit operation: ignorable error categories

If you add an ignorable error category to the copy-free transition project during the commit operation, ONTAP performs some corrective action on the aggregates and volumes in addition to changing the blocking error to a warning.

Category	When the error is displayed	Corrective action if the error is acknowledged and commit operation is run again
<code>ignore-commit-offline-aggregates</code>	Some of the transitioned aggregates are offline.	All of the offline aggregates are brought online.

Downloading transition log files

The 7-Mode Transition Tool creates log files that provide processing details of the transition assessment and migration operations run on your system.

Steps

1. Click **Logs** in the top menu.
2. Click **Collect Project Logs** to collect logs related to all of the projects.
3. To collect logs for a given projects, locate the projects from the project list, and then click **Download**.

The logs are downloaded as a `.zip` file, and the folder name is the timestamp.

Related information

[How to upload a file to NetApp](#)

Log files for the 7-Mode Transition Tool

The 7-Mode Transition Tool creates log files that provide processing details of the transition operations that have occurred on your system. The log files are located in the logs directory of the path where 7-Mode Transition Tool is installed.

You can also use the EMS messages related to SnapMirror logs from the 7-Mode system and the cluster to troubleshoot issues.

The following table lists the log files that are related to a particular transition project:

Log file path	Contains information about...
<code>project_name/transition.log</code>	Debug messages that are specific to a project
<code>project_name/zapi-outbound.log</code>	Output of all the Data ONTAP APIs that are executed by 7-Mode Transition Tool for a particular project

The following table lists the log files that are not related to any particular project:

Log file path	Contains information about...
<code>transition-gui.log</code>	Entries of all the actions performed by using the web interface

Log file path	Contains information about...
<code>default/audit.log</code>	<ul style="list-style-type: none"> • All the parameters, such as HTTP or HTTPS port and log directory path, that are used by the tool every time 7-Mode Transition Tool is run • All the transition commands that are executed with the outputs
<code>default/default/transition.log</code>	Debug messages that are not specific to any project
<code>default/STREAM_MANAGEMENT/stream_management.log</code>	Debug messages that are logged by the scheduler while managing the schedules and which do not belong to any project
<code>default/default/zapi-outbound.log</code>	Output of all the Data ONTAP APIs that are executed by 7-Mode Transition Tool and which do not belong to any project
<code>default/STREAM_MANAGEMENT/zapi-outbound.log</code>	Output of all the Data ONTAP APIs that are executed by the 7-Mode Transition Tool scheduler while managing the schedules and which do not belong to any project
<code>server-console.log</code>	Log entries of all the packet exchanges done with the 7-Mode Transition Tool server. This file helps in troubleshooting issues related to a server crash.

Recovering from a failed LUN transition

If the transition of volumes with LUNs fails, you can use the `lun transition 7-mode show` command to check which LUNs were not transitioned to ONTAP, and then determine a corrective action.

Steps

1. Change to advanced privilege level:

```
set -privilege advanced
```

2. Check which LUNs failed:

```
lun transition 7-mode show
```

3. Review the EMS logs and determine the corrective action that you must take.
4. Perform the required steps shown in the EMS message to correct the failure.
5. If any supported LUNs failed the transition, then to complete the transition:

```
lun transition start
```


6. View the transition status of the volumes:

```
lun transition show
```

The transition status can be one of following values:

- **active**: The volume is in an active SnapMirror transition relationship and not yet transitioned.
- **complete**: All supported LUNs are transitioned for this volume.
- **failed**: LUN transition failed for the volume.
- **none**: The volume did not contain LUNs to transition from 7-Mode systems.

```
cluster1::*> lun transition show
Vserver          Volume          Transition Status
-----
vs1              vol0            none
                 vol1            complete
                 vol2            failed
                 vol3            active
```

Related information

[Space considerations when transitioning SAN volumes](#)

Failed to boot the 7-Mode controller in maintenance mode

The export and halt operation fails with the error message: **Failed to boot the 7-Mode controller in maintenance mode**. You must manually halt and boot the controller in the maintenance mode and rerun the operation.

Workaround

1. Halt the 7-Mode storage system:

```
halt -f -t 0
```

2. At the LOADER prompt, record the values set for the **bootarg.init.console_muted** and **bootarg.init.console_level boot** boot parameters:

```
printenv bootarg.init.console_muted
```

```
printenv bootarg.init.console_level
```

3. Disable the console messages by setting the following boot parameters:

```
setenv bootarg.init.console_muted "true"
```

```
setenv bootarg.init.console_level "-1"
```

4. From the 7-Mode Transition Tool, rerun the export and halt operation.
5. From the 7-Mode storage system, set the boot parameters to their original values, as recorded in Step 2:

If the boot parameters are...	Enter the following commands...
Not set previously with any value (undefined)	<pre>unsetenv bootarg.init.console_muted unsetenv bootarg.init.console_level</pre>
Set with a value previously	<pre>unsetenv bootarg.init.console_muted "original_value" unsetenv bootarg.init.console_level "original_value"</pre>

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