



# Troubleshooting SnapManager

## SnapManager Oracle

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You can find information about some of the most common issues that might occur and how you can resolve them.

The following table describes common issues and possible solutions:

Issue-driven question	Possible solution
Are the target database and listener running?	Run the <code>lsnrctl status</code> command. Ensure that the database instance is registered with the listener.
Is the storage visible?	Run the <code>snapdrive storage show -all</code> command.
Is the storage writable?	Edit a file in the mountpoint that you just created. Use the <code>touch filename</code> command. If the file is created, then your storage is writable. You must ensure that the storage is writable by the user that SnapManager runs as (for example, as root on UNIX).
Is the SnapManager server running?	<p>Run <code>smo_server status</code> and try to start the server by using the <code>smo_server start</code> command.</p> <p>Before you can use the graphical user interface (GUI) or the command-line interface (CLI) to initiate SnapManager commands related to profiles, the server must be running. You can create or update repositories without starting the server, but to execute all other SnapManager operations, the server must be running.</p> <p>To start the SnapManager server, enter the following command: <code>smo_server start</code>.</p>
Are all the components required to run SnapManager set up correctly?	Run the <code>smo system verify</code> command to verify that SnapDrive is set up correctly.
Do you have the correct version of SnapManager?	Use the <code>smo version</code> command to check the SnapManager version.

Issue-driven question	Possible solution
<p>Have you looked at the SnapManager log files to determine if the error messages can help isolate the issue?</p>	<p>SnapManager records all log entries into one set of rotating log files. The log files are found at <code>/var/log/smo</code>.</p> <p>The log files are found at <code>C:\program_files\NetApp\SnapManager for Oracle\logs</code>.</p> <p>It might also be helpful to look at the logs in the following location:</p> <p><code>/usr_home/.netapp/smo/3.3.0/log/</code></p> <p>Each operation log is written to its own log file of the form <code>smo_of_date_time.log</code>.</p>
<p>If you have archive logs stored on a storage system that is not running Data ONTAP, have you excluded them from consideration for backup with SnapManager?</p>	<p>The <code>smo.config</code> file enables you to exclude certain archive log files. For UNIX, the files are at the following location:</p> <p><code>/opt/NetApp/smo/properties/smo.config</code></p> <p>Use the format mentioned in the file to exclude the local archive logs. For additional information, see the “Setting configuration properties” topic.</p> <p>You can also exclude the archive log destinations while creating a backup from the SnapManager CLI. For additional information, see the “Creating database backups” topic.</p> <p>You can also exclude the archive log destinations while creating a backup from the SnapManager GUI.</p>
<p>Do you have a FlexClone license if you are using SnapManager with NFS databases?</p>	<p>A FlexClone license is required to take full advantage of SnapManager with NFS databases. SnapManager uses the FlexClone feature to accomplish these tasks:</p> <ul style="list-style-type: none"> <li>• Mount backups of NFS databases</li> <li>• Verify backups of NFS databases</li> <li>• Clone NFS databases</li> <li>• Register backups of NFS databases with RMAN (if using RMAN)</li> </ul>

Issue-driven question	Possible solution
Were you unable to connect to the repository?	<p>If connecting to a repository fails, run the <code>lsnrctl status</code> command on the repository database and check the active service names. When SnapManager connects to the repository database, it uses the service name of the database. Depending on how the listener is setup, this might be the short service name or the fully qualified service name. When SnapManager connects to a database for a backup, restore, or other operation, it uses the host name and the SID. If the repository does not initialize correctly because it is currently unreachable, you receive an error message asking whether you want to remove the repository. You can remove the repository from your current view so that you can perform operations on other repositories.</p> <p>Also, check whether the repository instance is running by running the <code>ps -eaf</code></p>
grepinstance - name command.	Can system resolve the host name?
Check whether the specified host name is on a different subnet. If you receive an error message that SnapManager cannot resolve the host name, then add the host name in the host file. Add the host name to the file located at <code>/etc/hosts: xxx.xxx.xxx.xxx hostname IP address</code>	Is SnapDrive running?
<p>Check whether the SnapDrive daemon is running: <code>-snapdrived status</code></p> <p>If the daemon is not running, a message appears indicating that there is a connection error.</p>	Which storage systems are configured to be accessed with SnapDrive?
Run the command: <code>-snapdrive config list</code>	How can SnapManager GUI performance be improved?

Issue-driven question	Possible solution
<ul style="list-style-type: none"> <li>• Ensure that you have valid user credentials for the repository, profile host, and profile.  If your credential is invalid, then clear the user credentials for the repository, profile host, and profile. Reset the same user credentials that you set before for the repository, profile host, and profile. For additional information about setting the user credentials again, see “Setting credentials after clearing credential cache”.</li> <li>• Close the unused profiles.  If the number of profiles that you have opened is more, the SnapManager GUI performance slows down.</li> <li>• Check whether you enabled <b>Open On Startup</b> in the User Preferences window under the <b>Admin</b> menu, from the SnapManager GUI.  If this is enabled, then the user configuration (user.config) file available at /root/.netapp/smo/3.3.0/gui/state is displayed as openOnStartup=PROFILE.  Because <b>Open On Startup</b> is enabled, you must check for recently opened profiles from the SnapManager GUI, using lastOpenProfiles in the user configuration (user.config) file: lastOpenProfiles=PROFILE1,PROFILE2,PROFILE3,...  You can delete the profile names listed and always keep a minimum number of profiles as open.</li> <li>• The protected profile takes more time to refresh than the profile that is not protected.  The protected profile is refreshed at a time interval, based on the value specified in the protectionStatusRefreshRate parameter of the user configuration (user.config) file.  You can increase the value from the default value (300 seconds) so that the protected profiles are refreshed only after specified time interval.</li> <li>• Before installing the new version of SnapManager on the UNIX-based environment, delete the SnapManager client-side entries available at the following location:  /root/.netapp</li> </ul>	<p>SnapManager GUI takes more time to refresh when there are multiple SnapManager operations started and running simultaneously in the background. When you right-click the backup (that is already deleted but still gets displayed in the SnapManager GUI), the backup options for that backup are not enabled in the Backup or Clone window.</p>

Issue-driven question	Possible solution
<p>You need to wait until the SnapManager GUI gets refreshed, and then check for the backup status.</p>	<p>What would you do when the Oracle database is not set in English?</p>
<p>SnapManager operations might fail if the language for an Oracle database is not set to English. Set the language of the Oracle database to English:</p> <ol style="list-style-type: none"> <li>1. Add the following under the initial comments in <code>/etc/init.d/smo_server</code> <ul style="list-style-type: none"> <li>◦ <code>NLS_LANG=American_America</code></li> <li>◦ <code>export NLS_LANG</code></li> </ul> </li> <li>2. Restart the SnapManager server using the following command: <code>smo_server restart</code></li> </ol> <div style="border-left: 1px solid #ccc; padding-left: 10px; margin-top: 10px;">  <p>If the login scripts such as <code>.bash_profile</code>, <code>.bashrc</code>, and <code>.cshrc</code> for the Oracle user is set to <code>NLS_LANG</code>, you must edit the script to not overwrite <code>NLS_LANG</code>.</p> </div>	<p>What would you do when the backup scheduling operation fails if the repository database points to more than one IP and each IP has a different host name?</p>
<ol style="list-style-type: none"> <li>1. Stop the SnapManager server.</li> <li>2. Delete the schedule files in the repository directory from the hosts where you want to trigger the backup schedule.</li> </ol> <p>The schedule file names can be in the following formats:</p> <ul style="list-style-type: none"> <li>◦ <code>repository#repo_username#repository_database_name#repository_host#repo_port</code></li> <li>◦ <code>repository-repo_usernamerepository_database_name-repository_host-repo_port</code> <b>Note:</b> You must ensure that you delete the schedule file in the format that matches the repository details.</li> </ul> <ol style="list-style-type: none"> <li>3. Restart the SnapManager server.</li> <li>4. Open other profiles under the same repository from the SnapManager GUI to ensure that you do not miss any schedule information of those profiles.</li> </ol>	<p>What would you do when the SnapManager operation fails with credential file lock error?</p>

Issue-driven question	Possible solution
<p>SnapManager locks the credential file before updating, and unlocks it after updating. When multiple operations run simultaneously, one of the operations might lock the credential file to update it. If another operation tries to access the locked credential file at the same time, the operation fails with the file lock error.</p> <p>Configure the following parameters in the smo.config file depending on the frequency of simultaneous operations:</p> <ul style="list-style-type: none"> <li>• fileLock.retryInterval = 100 milliseconds</li> <li>• fileLock.timeout = 5000 milliseconds</li> </ul> <div style="border-left: 1px solid #ccc; padding-left: 10px; margin-top: 10px;">  The values assigned to the parameters must be in milliseconds. </div>	<p>What would you do when the backup verify operation's intermediate status shows failed in the Monitor tab even though the backup verify operation is still running?</p>
<p>The error message is logged in the sm_gui.log file. You must look in the log file to determine the new values for the operation.heartbeatInterval and operation.heartbeatThreshold parameters which will resolve this issue.</p> <ol style="list-style-type: none"> <li>1. Add the following parameters in the smo.config file: <ul style="list-style-type: none"> <li>◦ operation.heartbeatInterval = 5000</li> <li>◦ operation.heartbeatThreshold = 5000 The default value assigned by SnapManager is 5000.</li> </ul> </li> <li>2. Assign the new values to these parameters.</li> </ol> <div style="border-left: 1px solid #ccc; padding-left: 10px; margin-top: 10px;">  The values assigned to the parameters must be in milliseconds. </div> <ol style="list-style-type: none"> <li>3. Restart the SnapManager server and perform the operation again.</li> </ol>	<p>What to do when you encounter a heap-space issue?</p>

Issue-driven question	Possible solution
<p>When you encounter a heap-space issue during SnapManager for Oracle operations, you must perform the following steps:</p> <ol style="list-style-type: none"> <li>1. Navigate to the SnapManager for Oracle installation directory.</li> <li>2. Open the launchjava file from the installationdirectory/bin/launchjava path.</li> <li>3. Increase the value of the java -Xmx160m Java heap-space parameter.</li> </ol> <p>For example, you can increase the default value of 160m to 200m.</p> <div style="border-left: 1px solid #ccc; padding-left: 10px; margin-top: 10px;">  <p>If you have increased the value of the Java heap-space parameter in the earlier versions of SnapManager for Oracle, you should retain that value.</p> </div>	<p>What would you do if you cannot use the protected backups to restore or clone?</p>
<p>This issue is observed if you were using SnapManager 3.3.1 with clustered Data ONTAP and have upgraded to SnapManager 3.4. The backups were protected using post-scripts in SnapManager 3.3.1. From SnapManager 3.4, the backups are protected using either <i>SnapManager_cDOT_Mirror</i> or <i>SnapManager_cDOT_Vault</i> policies which are selected while creating a profile. After upgrading to SnapManager 3.4, you might still be using the old profiles and thus backups are protected using backup scripts, but you cannot use them for restore or cloning using SnapManager.</p> <p>You must update the profile and select either <i>SnapManager_cDOT_Mirror</i> or <i>SnapManager_cDOT_Vault</i> policy and delete the post-script that was used for data protection in SnapManager 3.3.1.</p>	<p>What would you do if scheduled backups are not getting protected (SnapVault)?</p>

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