Dump files

SnapManager Oracle

NetApp
April 15, 2021

Table of Contents

Dump files

The dump files are compressed log files containing information about SnapManager and its environment. The different types of log files created are operation, profile, and system dump file.

You can use the dump command or the **Create Diagnostics** tab in the graphical user interface (GUI) to collect information about an operation, a profile, or the environment. A system dump does not require a profile; however, the profile and operation dumps require profiles.

SnapManager includes the following diagnostic information in the dump file:

- The steps performed
- The length of time for each step to complete
- The outcome of each step
- Error, if any, that occurred during the operation

SnapManager log files or dump files enable read and write permissions only for the root users and the other users who belong to root user group.

SnapManager also includes the following information in the file:

- Operating system version and architecture
- Environment variables
- Java version
- SnapManager version and architecture
- SnapManager preferences
- SnapManager messages
- log4j properties
- SnapDrive version and architecture
- SnapDrive log files
- Oracle version
- Oracle OPatch local inventory details
- Repository database Oracle version
- Target database type (stand alone)
- Target database role (primary, physical standby, or logical standby)
- Target database Oracle Recovery Manager (RMAN) setup (no RMAN integration, RMAN with control files, or RMAN with catalog file)
- Target database Oracle version
- System identifier (SID) of the target database
- RMAN database name and TNS connection name
- Repository database service name

- Database instances installed on the host
- Profile descriptor
- Shared memory maximum
- Swap space information
- Memory information
- Multipath environment
- Host utilities version
- Microsoft Internet Small Computer System Interface (iSCSI) software initiator version for Windows
- Output of the system verify command

The dump file also lists the SnapManager limitations on Windows.

SnapManager dump files also contain the SnapDrive data collector file and the Oracle alert log file. You can collect the Oracle alert log file by using the smo operation dump and smo profile dump commands.

System dump does not contain Oracle alert logs; however, the profile and operation dumps contain the alert logs.

Even if the SnapManager host server is not running, you can access the dump information by using the command-line interface (CLI) or the GUI.

If you encounter a problem that you cannot resolve, you can send these files to NetApp Global Services.

Creating operation-level dump files

You can use the smo operation dump command with the name or ID of the failed operation to get log information about a particular operation. You can specify different log levels to gather information about a specific operation, profile, host, or environment.

1. Enter the following command:smo operation dump -idguid

   The smo operation dump command provides a super set of the information provided by the smo profile dump command, which in turn provides a super set of the information provided by the smo system dump command.

   Dump file location:

   ```
   Path:\<user-home>\Application
   Data\NetApp\smo\3.3.0\smo_dump_8abc01c814649ebd0114649ec69d0001.jar
   ```

Creating profile-level dump files

You can find log information about a particular profile by using the smo profile dump command with the name of the profile.

1. Enter the following command: smo profile dump -profile profile_name

   Dump file location:

```
Path:\<user-home>\Application
Data\NetApp\smo\3.3.0\smo_dump_8abc01c814649ebd0114649ec69d0001.jar
```

> If you encounter an error while creating a profile, use the smosystem dump command. After you have successfully created a profile, use the smooperation dump and smoprofile dump commands.

Creating system-level dump files

You can use the smo system dump command to get log information about the SnapManager host and environment. You can specify different log levels to collect information about a specific operation, profile, or host and environment.

1. Enter the following command: smo system dump

   Resulting dump

```
Path:\<user-home>\Application
Data\NetApp\smo\3.3.0\smo_dump_server_host.jar
```

How to locate dump files

The dump file is located at the client system for easy access. These files are helpful if you need to troubleshoot a problem related to profile, system, or any operation.

The dump file is located in the user's home directory on the client system.

- If you are using the graphical user interface (GUI), the dump file is located at:

```
user_home\Application Data\NetApp\smo\3.3.0\smo_dump dump_file_type_name
server_host.jar
```

- If you are using the command-line interface (CLI), the dump file is located at:

```
user_home\.netapp\smo\3.3.0\smo_dump_dump_file_type_name server_host.jar
```

The dump file contains the output of the dump command. The name of the file depends on the information supplied. The following table shows the types of dump operations and the resulting file names:

Type of dump operation	Resulting file name
Operation dump command with operation ID	smo_dump_operation-id.jar

Operation dump command with no operation ID	smo operation dump -profile VH1-verbose The following output is displayed:
	`smo operation dump -profile VH1 -verbose`
	`[ INFO] SMO-13048: Dump Operation Status: SUCCESS`
	`[ INFO] SMO-13049: Elapsed Time: 0:00:01.404`
	`Dump file created.`
	`Path: user_home\Application Data\ontap\smo\3.3.0\smo_dump_VH1_kaw.rtp.foo.com.jar`

System dump command	smo_dump_host-name.jar
Profile dump command	smo_dump_profile-name_host-name.jar

How to collect dump files

You can include -dump in the SnapManager command to collect the dump files after a successful or failed SnapManager operation.

You can collect dump files for the following SnapManager operations:

- Creating profiles
- Updating profiles
- Creating backups
- Verifying backups
- Deleting backups
- Freeing backups
- Mounting backups
- Unmounting backups
- Restoring backups
- Creating clones
- Deleting clones

When you create a profile, you can collect dump files only if the operation is successful. If you encounter an error while creating a profile, you must use the smosystem dump command. For successful profiles, you can use the smooperation dump and smoprofile dump commands to collect the dump files.

Example

```
      smo  backup create -profile targetdb1_prof1 -auto -full -online
-dump
```

Collecting additional log information for easier debugging

If you need additional logs to debug a failed SnapManager operation, you must set an external environment variable server.log.level. This variable overrides the default log level and dumps all the log messages in the log file. For example, you can change the log level to DEBUG, which logs additional messages and can assist in debugging issues.

The SnapManager logs can be found at the following locations:

- SnapManager_install_directory\log

To override the default log level, you must perform the following steps:

1. Create a platform.override text file in the SnapManager installation directory.
2. Add the server.log.level parameter in the platform.override text file.
3. Assign a value (TRACE, DEBUG, INFO, WARN, ERROR, FATAL, or PROGRESS) to the server.log.level parameter.

   For example, to change the log level to ERROR, set the value of server.log.level to ERROR.

   server.log.level=ERROR

4. Restart the SnapManager server.

If the additional log information is not required, you can delete the server.log.level parameter from the platform.override text file.

SnapManager manages the volume of server log files based on the user-defined values of the following parameters in the smo.config file:

- log.max_log_files
- log.max_log_file_size
- log.max_rolling_operation_factory_logs