Dump files

SnapManager for SAP

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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
- 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
- BACKINT interface versions
- BR tool version
- Patch level
- 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 `smsap operation dump` and `smsap 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.

Create operation-level dump files

You can use the `smsap 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.

Step

1. Enter the following command:

   `smsap operation dump -id guid`

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

   Dump file location:

   ```
   Path:\<user-home>\Application
   Data\NetApp\smsap\3.3.0\smsap_dump_8abc01c814649ebd0114649ec69d0001.jar
   ```

Create profile-level dump files

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

Step

1. Enter the following command:

   `smsap profile dump -profile *profile_name*`

   Dump file location:

   ```
   Path:\<user-home>\Application
   Data\NetApp\smsap\3.3.0\smsap_dump_8abc01c814649ebd0114649ec69d0001.jar
   ```

   If you encounter an error while creating a profile, use the `smsap system dump` command. After you have successfully created a profile, use the `smsap operation dump` and `smsap profile dump` commands.

Create system-level dump files

You can use the `smsap 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.

Step

1. Enter the following command:

   ```
   smsap system dump
   ```

   Resulting dump

   ```
   Path:\<user-home>\Application
   Data\NetApp\smsap\3.3.0\smsap_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\smsap\3.3.0\smsap_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\smsap\3.3.0\smsap_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	`smsap_dump_operation-id.jar`

Operation dump command with no operation ID	`smsap operation dump -profile VH1 -verbose` The following output is displayed:
	`smsap operation dump -profile VH1 -verbose`
	`[ INFO] SMSAP-13048: Dump Operation Status: SUCCESS`
	`[ INFO] SMSAP-13049: Elapsed Time: 0:00:01.404`
	`Dump file created.`
	`Path: user_home\Application Data\ontap\smsap\3.3.0\smsap_dump_VH1_kaw.rtp.foo.com.jar`

System dump command	`smsap_dump_host-name.jar`
Profile dump command	`smsap_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 `smsap system dump` command. For successful profiles, you can use the `smsap operation dump` and `smsap profile dump` commands to collect the dump files.

Example

```
smsap 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 `smsap.config` file:

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

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