



System Logging

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System logs

System logs are diagnostic files that

- provide information for troubleshooting system issues
- consist of configuration logs and operational logs with different types of entries, and
- support configurable log levels to control the verbosity of logged information.

System log information

NFVIS generates log files for troubleshooting issues. The configuration log and the operational log are the two main system log files. The configuration log has information related to configurations and actions performed on the system such as creation of networks. The operational log has information related to system operation such as statistics collection and monitoring.

Log entries can be one of these types:

Table 1: System log levels

Log Level	Purpose
DEBUG	Information, typically of interest only when diagnosing problems.
INFO	Confirmation that things are working as expected.
WARNING	An indication that something unexpected happened, or indicative of some problem in the near future (for example, 'disk space low'). The software application is still working as expected.
ERROR	Due to a serious problem, the software application is not able to perform some function.
CRITICAL	A serious ERROR, indicating that the program itself may not be able to continue running.

By default, the configuration log has a log-level of INFO. All logs of type INFO, WARNING, ERROR and CRITICAL are logged.

By default, the operational log has a log-level of WARNING. All logs of type WARNING, ERROR and CRITICAL are logged.

The log-level for these log files can be changed using the **system set-log** command:

```
system set-log level error logtype configuration
```

The change to the log level is not persistent across a reboot. After a reboot, the default log levels are used.

The current log files are kept in the `/var/log` directory in the system:

- show log - To display the list of available log files
- show log {filename} - To display the contents of a specific log file

Log Rotation

There is a size limit for the log files, under `/var/log/` directory. When the log files reach the size limit, the location of logs is rotated to another place. The space limit for the total size of all rotated log files is 2 GB. The older log files are dropped automatically on reaching the space limit. You can also execute a command to trigger the log rotation procedure. The log files are monitored periodically and if a log file gets too big, it is rotated to another place.

There is a size limit for the log files stored in the `/var/log` directory. The size of the log files is monitored periodically every fifteen minutes and if a log file gets too big, it is rotated to the `/data/intdatastore/logs` directory. The space limit for the total size of all the rotated log files is 2 GB. The older log files are dropped automatically on reaching the space limit. You can also execute the **logrotate** command to trigger the log rotation procedure.

```
nfvis# logrotate
```

System log configuration verification

To verify the system log configuration, use the **show system logging-level** command as shown below:

```
nfvis# show system logging-level
system logging-level configuration error
system logging-level operational warning
```

System log APIs and commands:

Table 2: System log APIs and commands

System Log APIs	System Log Commands
<ul style="list-style-type: none"> • /api/operations/system/set-log • /api/operational/system/logging-level 	<ul style="list-style-type: none"> • system set-log logtype [all/configuration/operational] level [CRITICAL/DEBUG/ERROR/INFO/WARNING] • show system logging-level