



## **Manage tracing**

### **NetApp SMI-S Provider**

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May 03, 2022

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# Manage tracing

You can configure how SMI-S Provider manages trace files, such as specifying the components to be traced, the target to which trace messages are written, the level of tracing, and the trace file location.

## Specifying trace settings

Having tracing enabled is important for gathering information for troubleshooting. However, having tracing enabled can impact performance, so carefully consider what must be traced and how long you need tracing enabled.

### Before you begin

- You must already have login credentials as Administrator.
- You must already have logged in to the host system as Administrator.

### Steps

1. Access NetApp SMI-S Provider.
2. Specify various trace settings as applicable:

Action	Command
Specify the components to be traced	<code>cimconfig -s traceComponents=<i>components</i> -p</code>
Specify the trace facility	<code>cimconfig -s traceFacility=<i>facility</i> -p</code>
Specify the location of the trace file	<code>cimconfig -s traceFilePath=<i>path_name</i> -p</code>
Specify the trace level	<code>cimconfig -s traceLevel=<i>level</i> -p</code>

3. Restart the CIM server:

```
smis cimserver restart
```

## Trace setting values

You can specify the components to trace, the trace target, and the level of tracing. Optionally, you can change the name and location of the trace file if you do not want to use the default trace file name and location.

You can configure the following trace settings:

- **traceComponents**

Specifies the components to be traced. By default, all components are traced.

- **traceFacility**

Specifies the target to which trace messages are written:

- File

This is the default value, which specifies that trace messages are written to the file specified by the `traceFilePath` configuration option.

- Log

Specifies that trace messages are written to the `cimserver_standard` log file.

- **traceFilePath**

Specifies the location of the trace file. By default, the trace file is named `cimserver.trc` and is located in the `traces` directory.

- **traceLevel**

Specifies the level of tracing. By default, tracing is disabled.

Trace level	Trace messages written
0	Tracing is disabled.
1	Severe and log messages.
2	Basic flow trace messages (low data detail)
3	Inter-function logic flow (medium data detail)
4	High data detail
5	High data detail + Method enter and exit

## Specify trace file size

If tracing is enabled, the maximum trace file size is 100 MB by default. You can increase or decrease the maximum trace file size by setting the environment variable `PEGASUS_TRACE_FILE_SIZE`. The value of the trace file size can be 10 MB through 2 GB.

### Before you begin

- You must already have login credentials as Administrator.
- You must already have logged in to the host system as Administrator.

### Steps

1. Access NetApp SMI-S Provider.
2. Create a system or user environment variable named `PEGASUS_TRACE_FILE_SIZE` with the new trace file size in bytes.

*Windows documentation* has more information about creating environment variables.

3. Restart the CIM server:

```
smis cimserver restart
```

## Specify the number of trace files saved

If tracing is enabled, seven trace files are saved by default. If you need more trace files saved, you can increase the maximum number of trace files saved by setting the environment variable `PEGASUS_TRACE_FILE_NUM`. If you increase the maximum number of trace files saved, you must ensure that the system has enough space on its hard drive to accommodate the trace files.

### Before you begin

- You must already have login credentials as Administrator.
- You must already have logged in to the host system as Administrator.

### About this task

If tracing is enabled, tracing information is written to the `cimserver.trc` file. The trace files are rotated. When `cimserver.trc` reaches the maximum trace file size, its contents are moved to the `cimserver.trc.n` file. By default, `n` is a value from 0 through 5. If you need more trace files saved, you increase the value of `n`.

### Steps

1. Access NetApp SMI-S Provider.
2. Create a system or user environment variable named `PEGASUS_TRACE_FILE_NUM` with the new number of trace files saved.

*Windows documentation* has more information about creating environment variables.

3. Restart the CIM server:

```
smis cimserver restart
```

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