Manage SMI-S Provider advanced settings

NetApp SMI-S Provider

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Manage SMI-S Provider advanced settings

Overview

You can manage advanced settings for SMI-S Provider, such as specifying the SMI-S cache refresh interval, ONTAP API call timeout, and maximum number of threads per message service queue.

Specify the SMI-S Provider automatic cache refresh interval

By default, SMI-S Provider automatically retrieves information from storage systems every five minutes (300 seconds). You can set the automatic cache refresh interval (`CACHE_REFRESH_SEC` environment variable) to a value from 300 through 86400 seconds (24 hours).

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 you want to manually refresh the state of the storage system at any time, you can use the `smis refresh` command.

Steps

1. Access NetApp SMI-S Provider.
2. Create a system or user environment variable named `CACHE_REFRESH_SEC` with the new refresh interval value (in seconds).

   For information about creating environment variables, see your Windows documentation.

3. Restart the CIM server:

   ```
   smis cimserver restart
   ```

Specify the concrete job lifetime value

SMI-S Provider tracks the progress of asynchronous operations by creating *concrete jobs*. You can increase the concrete job lifetime from the default of 60 minutes (3600 seconds) to a value through 86400 seconds (24 hours).

Before you begin

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

Step

1. Create a system or user environment variable named `JOB_LIFETIME_SEC` with the new lifetime value (in seconds).

For information about creating environment variables, see your Windows documentation.

Specify the ONTAP API call timeout value

SMI-S Provider makes ONTAP API calls to storage systems. By default, the ONTAP API call timeout is 300 seconds. You can set the timeout to a value from 60 to 300 seconds.

Before you begin

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

Step

1. Create a system or user environment variable named `ONTAPI_TIMEOUT_SEC` with the new timeout value (in seconds).

   For information about creating environment variables, see your Windows documentation.

Specify the maximum number of threads per message service queue

By default, SMI-S Provider allows 80 threads per message service queue. You can specify the maximum thread value as 1 through 5000. Increasing the maximum number of threads can impact the SMI-S Provider machine's performance, so carefully consider whether you need to increase this value.

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 your trace file shows many lines of `insufficient resources` output, you must increase the number of threads in increments of 500.

If you set the maximum number of threads to fewer than 20, using the **`cimcli -n root/ontap niall`** command, the provider becomes unresponsive and returns the `Insufficient threadpool` message in the trace file. If this occurs, you must increase the number of threads in increments of 500 and then restart the provider.

Steps

1. Access NetApp SMI-S Provider.
2. Create a system or user environment variable named `PEGASUS_MAX_THREADS_PER_SVC_QUEUE` with the new maximum thread value.

   For information about creating environment variables, see your Windows documentation.

3. Restart the CIM server:

   `smis cimserver restart`

Enable or disable authentication for NetApp SMI-S Provider

By default, authentication is enabled for SMI-S Provider. If authentication causes errors on your system, you can optionally disable it. If authentication has been disabled and you want to reenable it, you can do so.

Before you begin

- You must already have login credentials as Administrator.
- You must already have logged in as Administrator.
- Any client, including System Center Virtual Machine Manager (SCVMM), must be connected to the provider using cimuser and cimpassword.

Steps

1. Access NetApp SMI-S Provider.
2. Set the authentication for SMI-S Provider:

Action	Command
Enable authentication if previously disabled	**`cimconfig -p -s enableAuthentication=true`**
Disable authentication	**`cimconfig -p -s enableAuthentication=false`**

   CIMOM does not use Windows authentication.

3. Restart NetApp SMI-S Provider:

   `smis cimserver restart`

Enable indications in SMI-S Provider

Alert, FileSystem Quota, and Lifecycle indications are disabled by default. You can enable these indications by setting the environment variable `PEGASUS_DISABLE_INDICATIONS` to `false`.

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

When `PEGASUS_DISABLE_INDICATIONS` is set to `false`, then Alert (`ONTAP_AlertIndication`), FileSystem Quota (`ONTAP_FSQuotaIndication`), and Lifecycle indications are enabled on NetApp SMI-S Provider.

Steps

1. Access NetApp SMI-S Provider.
2. Set the `PEGASUS_DISABLE_INDICATIONS` environment variable to `false`.

3. Restart the CIM server:

```
smis cimserver restart
```

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