NetApp

Add hosts and install Plug-ins Package for Linux or AIX

SnapCenter Software

NetApp
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You can use the Add Host page to add hosts, and then install the SnapCenter Plug-ins Package for Linux or SnapCenter Plug-ins Package for AIX. The plug-ins are automatically installed on the remote hosts.

What you will need

- You should be assigned to a role that has the plug-in install and uninstall permissions, such as the SnapCenter Admin role.
- You should ensure that the message queueing service is running.

About this task

You can add a host and install plug-in packages either for an individual host or for a cluster. If you are installing the plug-in on a cluster (Oracle RAC), the plug-in is installed on all of the nodes of the cluster. For Oracle RAC One Node, you should install the plug-in on both active and passive nodes.

ⓘ You cannot add a SnapCenter Server as a plug-in host to another SnapCenter Server.

Steps

1. In the left navigation pane, click **Hosts**.
2. Verify that the **Managed Hosts** tab is selected at the top.
3. Click **Add**.
4. On the Hosts page, perform the following actions:

For this field…	Do this…
Host Type	Select **Linux** or **AIX** as the host type. The SnapCenter Server adds the host, and then installs the Plug-in for Oracle Database and the Plug-in for UNIX if the plug-ins are not already installed on the host.

For this field…	Do this…
Host name	Enter the fully qualified domain name (FQDN) or the IP address of the host. SnapCenter depends on the proper configuration of the DNS. Therefore, the best practice is to enter the FQDN. You can enter the IP addresses or FQDN of one of the following: • Stand-alone host • Any node in the Oracle Real Application Clusters (RAC) environment Node VIP or scan IP is not supported If you are adding a host by using SnapCenter and the host is part of a subdomain, you must provide the FQDN.
Credentials	Either select the credential name that you created or create new credentials. The credential must have administrative rights on the remote host. For details, see the information about creating credentials. You can view details about the credentials by positioning the cursor over the credential name that you specified. ℹ️ The credentials authentication mode is determined by the host type that you specify in the Add Host wizard.

5. In the Select Plug-ins to Install section, select the plug-ins to install.
6. (Optional) Click **More Options**.

For this field…	Do this…
Port	Either retain the default port number or specify the port number. The default port number is 8145. If the SnapCenter Server was installed on a custom port, that port number will be displayed as the default port. ⓘ If you manually installed the plug-ins and specified a custom port, you must specify the same port. Otherwise, the operation fails.
Installation Path	The default path is */opt/NetApp/snapcenter*. You can optionally customize the path.
Add all hosts in the Oracle RAC	Select this check box to add all the cluster nodes in an Oracle RAC. In a Flex ASM setup, all the nodes irrespective of whether it is a Hub or Leaf node, will be added.
Skip preinstall checks	Select this check box if you already installed the plug-ins manually and you do not want to validate whether the host meets the requirements for installing the plug-in.

7. Click **Submit**.

   If you have not selected the Skip prechecks checkbox, the host is validated to verify whether the host meets the requirements for installing the plug-in.

   > ⓘ The precheck script does not validate the plug-in port firewall status if it is specified in the firewall reject rules.

   Appropriate error or warning messages are displayed if the minimum requirements are not met. If the error is related to disk space or RAM, you can update the web.config file located at *C:\Program Files\NetApp\SnapCenter WebApp* to modify the default values. If the error is related to other parameters, you should fix the issue.

   > ⓘ In an HA setup, if you are updating web.config file, you must update the file on both nodes.

8. Verify the fingerprint, and then click **Confirm and Submit**.

   In a cluster setup, you should verify the fingerprint of each of the nodes in the cluster.

   > ⓘ SnapCenter does not support ECDSA algorithm.

| | Fingerprint verification is mandatory even if the same host was added earlier to SnapCenter and the fingerprint was confirmed. |

9. Monitor the installation progress.

   The installation-specific log files are located at */custom_location/snapcenter/logs*.

After you finish

All the databases on the host are automatically discovered and displayed in the Resources page. If nothing is displayed, click **Refresh Resources**.

Install Plug-ins Package for Linux or AIX on multiple remote hosts using cmdlets

You should use the *Install-SmHostPackage* PowerShell cmdlet to install the SnapCenter Plug-ins Package for Linux or SnapCenter Plug-ins Package for AIX on multiple hosts.

What you will need

You should be logged in to SnapCenter as a domain user with local administrator rights on each host on which you want to install the plug-in package.

Steps

1. Launch PowerShell.

2. On the SnapCenter Server host, establish a session using the *Open-SmConnection* cmdlet, and then enter your credentials.

3. Install the SnapCenter Plug-ins Package for Linux or SnapCenter Plug-ins Package for AIX using the *Install-SmHostPackage* cmdlet and the required parameters.

   You can use the *-skipprecheck* option when you have already installed the plug-ins manually and do not want to validate whether the host meets the requirements to install the plug-in.

   | | The precheck script does not validate the plug-in port firewall status if it is specified in the firewall reject rules. |

4. Enter your credentials for remote installation.

The information regarding the parameters that can be used with the cmdlet and their descriptions can be obtained by running *Get-Help command_name*. Alternatively, you can also refer to the SnapCenter Software Cmdlet Reference Guide.

Install Plug-ins Package for Linux or AIX using the command-line interface

You can install SnapCenter Plug-ins Package for Linux or SnapCenter Plug-ins Package for AIX locally on the Linux or AIX host respectively. You can use the command-line interface to install the plug-ins package.

The SnapCenter Plug-ins Package for Linux or SnapCenter Plug-ins Package for AIX should be installed on each Linux or AIX hosts respectively, where the Oracle database resides.

Install Plug-ins Package for Linux interactively

You can install the SnapCenter Plug-ins Package for Linux interactively on a Linux host.

What you will need

- You should review the prerequisites for installing the plug-ins package.
- You should set the DISPLAY environment variable to specify the IP address and port number of the Linux host where you want to launch the wizard.

Steps

1. Download the SnapCenter Plug-ins Package for Linux from the SnapCenter Server installation location.

   The default installation path is *C:\ProgramData\NetApp\SnapCenter\Package Repository*. This path is accessible from the host where the SnapCenter Server is installed.

2. Copy the installation file to the host on which you want to install the plug-in.

3. From the command prompt, navigate to the directory where you downloaded the installation file and run:
   `./SnapCenter_linux_host_plugin.bin -i swing`

4. Follow the on-screen prompts in the wizard to install the plug-ins package.

5. Click **Finish** to complete the installation.

Install Plug-ins Package for Linux or AIX on cluster host

You should install SnapCenter Plug-ins Package for Linux or SnapCenter Plug-ins Package for AIX on both the nodes of the cluster host.

Each of the nodes of the cluster host has two IPs. One of the IPs will be the public IP of the respective nodes and the second IP will be the cluster IP that is shared between both the nodes.

Steps

1. Install SnapCenter Plug-ins Package for Linux or SnapCenter Plug-ins Package for AIX on both the nodes of the cluster host.

2. Validate that the correct values for SNAPCENTER_SERVER_HOST, SPL_PORT, SNAPCENTER_SERVER_PORT, and SPL_ENABLED_PLUGINS parameters are specified in the spl.properties file located at */var/opt/snapcenter/spl/etc/*.

   If SPL_ENABLED_PLUGINS is not specified in spl.properties, you can add it and assign the value SCO,SCU.

3. On the SnapCenter Server host, establish a session using the *Open-SmConnection* cmdlet, and then enter your credentials.

4. In each of the nodes, set the preferred IPs of the node using the *Set-PreferredHostIPsInStorageExportPolicy* sccli command and the required parameters.

5. In the SnapCenter Server host, add an entry for the cluster IP and corresponding DNS name in *C:\Windows\System32\drivers\etc\hosts*.

6. Add the node to the SnapCenter Server using the *Add-SmHost* cmdlet by specifying the cluster IP for the host name.

Discover the Oracle database on node 1 (assuming the cluster IP is hosted on node 1) and create a backup of the database. If a failover happens, you can use the backup created on node 1 to restore the database on node 2. You can also use the backup created on node 1 to create a clone on node 2.

> ⓘ   There will be stale volumes, directories, and lock file if the failover happens while any other SnapCenter operations are running.

Install Plug-ins Package for Linux in silent mode or console mode

You can install the SnapCenter Plug-ins Package for Linux either in console mode or in silent mode by using the command-line interface (CLI).

What you will need

- You should review the prerequisites for installing the plug-ins package.
- You should ensure that the DISPLAY environment variable is not set.

  If the DISPLAY environment variable is set, you should run unset DISPLAY, and then try to manually install the plug-in.

About this task

You are required to provide the necessary installation information while installing in console mode, whereas in silent mode installation you do not have to provide any installation information.

Steps

1. Download the SnapCenter Plug-ins Package for Linux from the SnapCenter Server installation location.

   The default installation path is *C:\ProgramData\NetApp\SnapCenter\PackageRepository*. This path is accessible from the host where the SnapCenter Server is installed.

2. From the command prompt, navigate to the directory where you downloaded the installation file.

3. Depending on your preferred mode of installation, perform one of the following step.

Install mode	Steps
Console mode	a. Run: `./SnapCenter_linux_host_plugin.bin -i console` b. Follow the on-screen prompts to complete the installation.

Install mode	Steps
Silent mode	Run: `./SnapCenter_linux_host_plugin.bin-i silent-DPORT=8145-DSERVER_IP=SnapCenter_Server_FQDN-DSERVER_HTTPS_PORT=SnapCenter_Server_Port-DUSER_INSTALL_DIR==/opt/custom_path`

4. Edit the spl.properties file located at */var/opt/snapcenter/spl/etc/* to add SPL_ENABLED_PLUGINS=SCO,SCU, and then restart the SnapCenter Plug-in Loader service.

> The installation of the plug-ins package registers the plug-ins on the host and not on the SnapCenter Server. You should register the plug-ins on the SnapCenter Server by adding the host using the SnapCenter GUI or PowerShell cmdlet. After the host is added, the installed plug-ins are automatically discovered.

Install Plug-ins Package for AIX in silent mode

You can install the SnapCenter Plug-ins Package for AIX in silent mode by using the command-line interface (CLI).

What you will need

- You should review the prerequisites for installing the plug-ins package.

- You should ensure that the DISPLAY environment variable is not set.

  If the DISPLAY environment variable is set, you should run unset DISPLAY, and then try to manually install the plug-in.

Steps

1. Download the SnapCenter Plug-ins Package for AIX from the SnapCenter Server installation location.

   The default installation path is *C:\ProgramData\NetApp\SnapCenter\PackageRepository*. This path is accessible from the host where the SnapCenter Server is installed.

2. From the command prompt, navigate to the directory where you downloaded the installation file.

3. Run

   `./snapcenter_aix_host_plugin.bsx-i                    silent-DPORT=8145-DSERVER_IP=SnapCenter_Server_FQDN-DSERVER_HTTPS_PORT=SnapCenter_Server_Port-DUSER_INSTALL_DIR==/opt/custom_path-DINSTALL_LOG_NAME=SnapCenter_AIX_Host_Plug-in_Install_MANUAL.log-DCHOSEN_FEATURE_LIST=CUSTOMDSPL_USER=install_user`

4. Edit the spl.properties file located at */var/opt/snapcenter/spl/etc/* to add SPL_ENABLED_PLUGINS=SCO,SCU, and then restart the SnapCenter Plug-in Loader service.

> ⚠️ The installation of the plug-ins package registers the plug-ins on the host and not on the SnapCenter Server. You should register the plug-ins on the SnapCenter Server by adding the host using the SnapCenter GUI or PowerShell cmdlet. After the host is added, the installed plug-ins are automatically discovered.

Monitor the status of installing Plug-ins Package for Linux or AIX

You can monitor the progress of SnapCenter plug-in package installation by using the Jobs page. You might want to check the progress of installation to determine when it is complete or if there is an issue.

About this task

The following icons appear on the Jobs page and indicate the state of the operation:

- ▶ In progress
- ✔ Completed successfully
- ✖ Failed
- ⚠ Completed with warnings or could not start due to warnings
- ↻ Queued

Steps

1. In the left navigation pane, click **Monitor**.
2. In the **Monitor** page, click **Jobs**.
3. On the **Jobs** page, to filter the list so that only plug-in installation operations are listed, do the following:
   a. Click **Filter**.
   b. Optional: Specify the start and end date.
   c. From the Type drop-down menu, select **Plug-in installation**.
   d. From the Status drop-down menu, select the installation status.
   e. Click **Apply**.
4. Select the installation job and click **Details** to view the job details.
5. In the **Job Details** page, click **View logs**.