



# **Manage support connections**

HCI

NetApp

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# Manage support connections

## Start a remote NetApp Support session

If you require technical support for your NetApp HCI system, NetApp Support can connect remotely with your system. To start a session and gain remote access, NetApp Support can open a reverse Secure Shell (SSH) connection to your environment.

### About this task

You can open a TCP port for an SSH reverse tunnel connection with NetApp Support. This connection enables NetApp Support to log in to your management node. If your management node is behind a proxy server, the following TCP ports are required in the `sshd.config` file:

TCP port	Description	Connection direction
443	API calls/HTTPS for reverse port forwarding via open support tunnel to the web UI	Management node to storage nodes
22	SSH login access	Management node to storage nodes or from storage nodes to management node



By default, the capability for remote access is enabled on the management node. To disable remote access functionality, see [Manage SSH functionality on the management node](#). You can enable remote access functionality again, if needed.

### Steps

- Log in to your management node and open a terminal session.
- At a prompt, enter the following:

```
rst -r sfsupport.solidfire.com -u element -p <port_number>
```

- To close the remote support tunnel, enter the following:

```
rst --killall
```

### Find more information

- [NetApp Element Plug-in for vCenter Server](#)
- [NetApp HCI Resources Page](#)

## Manage SSH functionality on the management node

You can disable, re-enable, or determine the status of the SSH capability on the management node (mNode) using the REST API. SSH capability that provides [NetApp Support remote support tunnel \(RST\) session access](#) is enabled on the management node by default.

Beginning with Management Services 2.20.69, you can enable and disable SSH capability on the management node using the NetApp Hybrid Cloud Control UI.

### What you'll need

- **NetApp Hybrid Cloud Control permissions:** You have permissions as administrator.
- **Cluster administrator permissions:** You have permissions as administrator on the storage cluster.
- **Element software:** Your cluster is running NetApp Element software 11.3 or later.
- **Management node:** You have deployed a management node running version 11.3 or later.
- **Management services updates:**
  - To use the NetApp Hybrid Cloud Control UI, you have updated your [management services bundle](#) to version 2.20.69 or later.
  - To use the REST API UI, you have updated your [management services bundle](#) to version 2.17.

### Options

- [Disable or enable the SSH capability on the management node using NetApp Hybrid Cloud Control UI](#)

You can do any of the following tasks after you [authenticate](#):

- [Disable or enable the SSH capability on the management node using APIs](#)
- [Determine status of the SSH capability on the management node using APIs](#)

## Disable or enable the SSH capability on the management node using NetApp Hybrid Cloud Control UI

You can disable or re-enable SSH capability on the management node. SSH capability that provides [NetApp Support remote support tunnel \(RST\) session access](#) is disabled by default on management nodes running management services 2.18 or later. Disabling SSH does not terminate or disconnect existing SSH client sessions to the management node. If you disable SSH and elect to re-enable it at a later time, you can do so using the NetApp Hybrid Cloud Control UI.



To enable or disable support access using SSH for a storage cluster, you must use the [Element UI cluster settings page](#).

### Steps

1. From the Dashboard, select the options menu on the top right and select **Configure**.
2. In the **Support Access for Management Node** screen, toggle the switch to enable management node SSH.
3. After you complete troubleshooting, in the **Support Access for Management Node** screen, toggle the switch to disable management node SSH.

## Disable or enable the SSH capability on the management node using APIs

You can disable or re-enable SSH capability on the management node. SSH capability that provides [NetApp Support remote support tunnel \(RST\) session access](#) is enabled on the management node by default. Disabling SSH does not terminate or disconnect existing SSH client sessions to the management node. If you disable SSH and elect to re-enable it at a later time, you can do so using the same API.

### API command

For management services 2.18 or later:

```
curl -k -X PUT
"https://<ManagementNodeIP>/mnode/2/settings/ssh?enabled=<false/true>" -H
"accept: application/json" -H "Authorization: Bearer ${TOKEN}"
```

For management services 2.17 or earlier:

```
curl -X PUT
"https://<ManagementNodeIP>/mnode/settings/ssh?enabled=<false/true>" -H
"accept: application/json" -H "Authorization: Bearer ${TOKEN}"
```



You can find the bearer `${TOKEN}` used by the API command when you [authorize](#). The bearer `${TOKEN}` is in the curl response.

### REST API UI steps

1. Access the REST API UI for the management node API service by entering the management node IP address followed by `/mnode/`:

```
https://<ManagementNodeIP>/mnode/
```

2. Select **Authorize** and complete the following:
  - a. Enter the cluster user name and password.
  - b. Enter the client ID as `mnode-client`.
  - c. Select **Authorize** to begin a session.
  - d. Close the window.
3. From the REST API UI, select **PUT /settings/ssh**.
  - a. Select **Try it out**.
  - b. Set the **enabled** parameter to `false` to disable SSH or `true` to re-enable SSH capability that you previously disabled.
  - c. Select **Execute**.

## Determine status of the SSH capability on the management node using APIs

You can determine whether or not SSH capability is enabled on the management node using a management node service API. SSH is enabled by default on the management node.

### API command

For management services 2.18 or later:

```
curl -k -X PUT
"https://<ManagementNodeIP>/mnode/2/settings/ssh?enabled=<false/true>" -H
"accept: application/json" -H "Authorization: Bearer ${TOKEN}"
```

For management services 2.17 or earlier:

```
curl -X PUT
"https://<ManagementNodeIP>/mnode/settings/ssh?enabled=<false/true>" -H
"accept: application/json" -H "Authorization: Bearer ${TOKEN}"
```



You can find the bearer `${TOKEN}` used by the API command when you [authorize](#). The bearer `${TOKEN}` is in the curl response.

### REST API UI steps

1. Access the REST API UI for the management node API service by entering the management node IP address followed by `/mnode/`:

```
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2. Select **Authorize** and complete the following:
  - a. Enter the cluster user name and password.
  - b. Enter the client ID as `mnode-client`.
  - c. Select **Authorize** to begin a session.
  - d. Close the window.
3. From the REST API UI, select **GET /settings/ssh**.
  - a. Select **Try it out**.
  - b. Select **Execute**.

### Find more information

- [NetApp Element Plug-in for vCenter Server](#)
- [NetApp HCI Resources Page](#)

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