



# **Manage support connections**

## **Element Software**

NetApp

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# Manage support connections

## Start a remote NetApp Support session

If you require technical support for your SolidFire all-flash storage 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.

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.

### Before you begin

- For management services 2.18 and later, the capability for remote access is disabled on the management node by default. To enable remote access functionality, see [Manage SSH functionality on the 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

### 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
```

- (Optional) Disable [remote access functionality](#) again.



SSH remains enabled on the management node if you do not disable it. SSH enabled configuration persists on the management node through updates and upgrades until it is manually disabled.

### Find more information

- [NetApp Element Plug-in for vCenter Server](#)
- [SolidFire and Element Software Documentation](#)

# 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 disabled by default on management nodes running management services 2.18 or later.

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 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 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 was 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 disabled by default on management nodes running management services 2.18 or later.

### 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

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  - 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](#)
- [SolidFire and Element Software Documentation](#)

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