Add interfaces to existing node

StorageGRID 11.7

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Table of Contents

Add interfaces to existing node 1
Linux: Add Admin or Client interfaces to an existing node 1
Linux: Add trunk or access interfaces to a node 1
VMware: Add trunk or access interfaces to a node 3

Add interfaces to existing node

Linux: Add Admin or Client interfaces to an existing node

Use these steps to add an interface on the Admin Network or the Client Network to a Linux node after it has been installed.

If you did not configure ADMIN_NETWORK_TARGET or CLIENT_NETWORK_TARGET in the node configuration file on the Linux host during installation, use this procedure to add the interface. For more information about the node configuration file, see the instructions for your Linux operating system:

- Install Red Hat Enterprise Linux or CentOS
- Install Ubuntu or Debian

You perform this procedure on the Linux server hosting the node that needs the new network assignment, not inside the node. This procedure only adds the interface to the node; a validation error occurs if you attempt to specify any other network parameters.

To provide addressing information, you must use the Change IP tool. See Change node network configuration.

Steps

1. Log in to the Linux server hosting the node.
2. Edit the node configuration file: `/etc/storagegrid/nodes/node-name.conf`.

   Don't specify any other network parameters, or a validation error will result.

   a. Add an entry for the new network target. For example:

      ```
      CLIENT_NETWORK_TARGET = bond0.3206
      ```

   b. Optional: Add an entry for the MAC address. For example:

      ```
      CLIENT_NETWORK_MAC = aa:57:61:07:ea:5c
      ```

3. Run the node validate command:

   ```
   sudo storagegrid node validate node-name
   ```

4. Resolve all validation errors.
5. Run the node reload command:

   ```
   sudo storagegrid node reload node-name
   ```

Linux: Add trunk or access interfaces to a node

You can add extra trunk or access interfaces to a Linux node after it has been installed. The interfaces you add are displayed on the VLAN interfaces page and the HA groups page.

Before you begin

- You have access to the instructions for installing StorageGRID on your Linux platform.
  - Install Red Hat Enterprise Linux or CentOS
  - Install Ubuntu or Debian
- You have the `Passwords.txt` file.
- You have specific access permissions.

> Don’t attempt to add interfaces to a node while a software upgrade, recovery procedure, or expansion procedure is active.

About this task

Use these steps to add one or more extra interfaces to a Linux node after the node has been installed. For example, you might want to add a trunk interface to an Admin or Gateway Node, so you can use VLAN interfaces to segregate the traffic belonging to different applications or tenants. Or, you might want to add an access interface to use in a high availability (HA) group.

If you add a trunk interface, you must configure a VLAN interface in StorageGRID. If you add an access interface, you can add the interface directly to an HA group; you don’t need to configure a VLAN interface.

The node is unavailable for a brief time when you add interfaces. You should perform this procedure on one node at a time.

Steps

1. Log in to the Linux server hosting the node.
2. Using a text editor such as vim or pico, edit the node configuration file:

   `/etc/storagegrid/nodes/`*`node-name`*`.conf`

3. Add an entry to the file to specify the name and, optionally, the description of each extra interface you want to add to the node. Use this format.

   `INTERFACE_TARGET_nnnn=`*`value`*

   For *nnnn*, specify a unique number for each `INTERFACE_TARGET` entry you are adding.

   For *value*, specify the name of the physical interface on the bare-metal host. Then, optionally, add a comma and provide a description of the interface, which is displayed on the VLAN interfaces page and the HA groups page.

   For example:

   ```
   INTERFACE_TARGET_0001=ens256, Trunk
   ```

   > Don’t specify any other network parameters, or a validation error will result.

4. Run the following command to validate your changes to the node configuration file:

   `sudo storagegrid node validate `*`node-name`*

   Address any errors or warnings before proceeding to the next step.

5. Run the following command to update the node's configuration:

```
sudo storagegrid node reload node-name
```

After you finish

- If you added one or more trunk interfaces, go to configure VLAN interfaces to configure one or more VLAN interfaces for each new parent interface.
- If you added one or more access interfaces, go to configure high availability groups to add the new interfaces directly to HA groups.

VMware: Add trunk or access interfaces to a node

You can add a trunk or access interface to a VM node after the node has been installed. The interfaces you add are displayed on the VLAN interfaces page and the HA groups page.

Before you begin

- You have access to the instructions for installing StorageGRID on your VMware platform.
- You have Admin Node and Gateway Node VMware virtual machines.
- You have a network subnet that is not being used as Grid, Admin, or Client Network.
- You have the `Passwords.txt` file.
- You have specific access permissions.

> Don't attempt to add interfaces to a node while a software upgrade, recovery procedure, or expansion procedure is active.

About this task

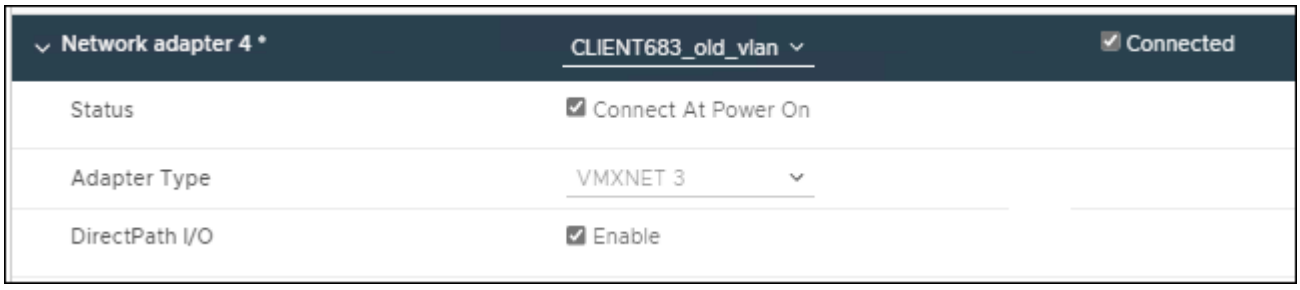
Use these steps to add one or more extra interfaces to a VMware node after the node has been installed. For example, you might want to add a trunk interface to an Admin or Gateway Node, so you can use VLAN interfaces to segregate the traffic belonging to different applications or tenants. Or you might want to add an access interface to use in a high availability (HA) group.

If you add a trunk interface, you must configure a VLAN interface in StorageGRID. If you add an access interface, you can add the interface directly to an HA group; you don't need to configure a VLAN interface.

The node might be unavailable for a brief time when you add interfaces.

Steps

1. In vCenter, add a new network adapter (type VMXNET3) to an Admin Node and Gateway Node VM. Select **Connected** and **Connect At Power On** checkboxes.



2. Use SSH to log in to the Admin Node or Gateway Node.
3. Use `ip link show` to confirm the new network interface ens256 is detected.

```
ip link show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode
DEFAULT group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1400 qdisc mq state UP mode
DEFAULT group default qlen 1000
    link/ether 00:50:56:a0:4e:5b brd ff:ff:ff:ff:ff:ff
3: eth1: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN mode DEFAULT
group default qlen 1000
    link/ether 00:50:56:a0:fa:ce brd ff:ff:ff:ff:ff:ff
4: eth2: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1400 qdisc mq state UP mode
DEFAULT group default qlen 1000
    link/ether 00:50:56:a0:d6:87 brd ff:ff:ff:ff:ff:ff
5: ens256: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq master
ens256vrf state UP mode DEFAULT group default qlen 1000
    link/ether 00:50:56:a0:ea:88 brd ff:ff:ff:ff:ff:ff
```

After you finish

- If you added one or more trunk interfaces, go to configure VLAN interfaces to configure one or more VLAN interfaces for each new parent interface.
- If you added one or more access interfaces, go to configure high availability groups to add the new interfaces directly to HA groups.

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