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# Configuring SNMP

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This page describes how to configure VX for Simple Network Management Protocol (SNMP) monitoring. SNMP is UDP-based network protocol for monitoring network devices. SNMP can be configured using VXbuilder or the Command Line Interface.

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For information on what SNMP MIBs and Traps are supported by VX, see [SNMP MIBs and Traps Supported by VX](#).

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## Configuring SNMP using VXbuilder

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In order to configure the VX system for SNMP monitoring, you must first configure SNMP Community names, set SNMP Trap to receive SNMP messages, pick an Ethernet Adapter on which to enable SNMP and then set the SNMP identifiers for the Ethernet Adapter.

### To Configure SNMP Community Names

1. In the VXbuilder configuration tree, select **node-root > General** on the settings tree, then double click inside the **General Settings** panel on the right.
2. Under the **SNMP** section, enter the **Read Community Name** and **Trap Community Name**.
3. Enable **MIB-II Support** by checking the box in the SNMP section.

For more information about SNMP Community configuration, see [Managing General Settings](#).

### To Set the SNMP Trap Configuration

1. In VXbuilder, select **node-root > Logging > SNMP Traps**. The right-pane displays the SNMP Traps view.
2. Double-click the **Item/Address** line to add an address. VX displays the **Edit Trap Server** dialog.



VX logs events and logs are sent as traps to the configured IP address. If multiple IP addresses are configured, traps are dispatched to each one of them.

3. In the **IP Address/FQDN** field enter the IP address or Fully Qualified Domain Name (FQDN) to which the new SNMP traps should be sent.
4. Click the **Enable SNMPv3** check box to enable. Valid selection: **Uncheck** (Trap User dropdown list is disabled and VX sends SNMPv2 traps on that trap server) or **Check** (Trap user dropdown list is enabled).
5. From the **Trap User** drop down box, select the Trap User to which the VX sends traps on that trap server.



To send SNMPv3 traps with authentication and privacy for a specific trap server, ensure the following:

- Enable SNMPv3 checkbox must be enabled
- User selected from the Trap User drop down list must be valid
- Transport Type is configured as UDP in the Edit User configuration (refer to [Managing User Information](#)).

For more information on the types of traps that the VX system reports, see [SNMP MIBs and Traps Supported by VX](#). For more information about the SNMP Traps setting, see [SNMP Traps](#).

Next, set the Ethernet Adapter parameters for SNMP.

The SNMP standard MIBs 'ifName' and 'ifAlias' are user configured values and are configured as part of the Ethernet adapter configuration. VX uses the system internal description for 'ifDesc' value if left empty in the configuration. Setting a value for 'Desc' in the Ethernet adapter configuration overrides the system internal description.

- Ethernet adapter entries in VX configuration are used to set values for 'ifName', 'ifAlias' and 'ifDesc' MIB of the 'ifTable' and 'ifXTable'

## To Set the Ethernet Adapter Configuration for SNMP

1. In VXbuilder, expand the configuration tree to **node-root > Networking > Ethernet Adapters > Ethernet Adapter #x**, and then double click the **Ethernet Adapter #x** entry.
2. In the **Edit Adapter** dialog, in the **Desc** field, enter a description to be used in the 'ifDesc' MIB of the of the 'ifTable' and 'ifXTable'.
3. In the **SNMP Name** field, enter a description to be used in the 'ifName' MIB of the of the 'ifTable' and 'ifXTable'.
4. In the **SNMP Alias** field, enter a description to be used in the 'ifAlias' MIB of the of the 'ifTable' and 'ifXTable'.

For more information editing the Ethernet Adapter configuration, see [Ethernet Adapters](#).

Finally, you must edit the IP interface of this adapter to enable SNMP.

## To Enable SNMP Monitoring on an Ethernet Adapter

1. In VXbuilder, select **node-root > Networking > Ethernet Adapters > Ethernet Adapter #x**.
2. In the **Interfaces for Ethernet Adapter #1** panel on the right, double click an entry.
3. In the **Edit IP Interface** dialog, enable the **SNMP** option by selecting **Yes**.

For more information about modifying IP Interfaces, see [Setting Up IP Interfaces](#).

## Configuring SNMP using the CLI

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In order to configure the VX system for SNMP monitoring, you must first configure SNMP Community names, set SNMP Trap to receive SNMP messages, pick an Ethernet Adapter on which to enable SNMP and then set the SNMP identifiers for the Ethernet Adapter.

### To Access the VX Command Line Interface

1. Connect to the VX system using a telnet-compatible application. ([more information...](#))
2. Set the interface to command mode using the **enable** command:

```
vx-node1> enable
Password: *****
vx-node1#
```

The CLI prompt should now end in a # instead of >.

Using the **snmp** configure command, follow the tasks in this step to configure SNMP.

### To Configure SNMP Using the CLI

1. Switch to configuration mode:

```
vx-node1# config
```

2. Set the SNMP Community Name and SNMP Trap Community Name using the **snmp read-community** command:

```
vx-node1/config# snmp read-community public
```

3. Set the SNMP System Contact using the **snmp system-contact** command:

```
vx-node1/config# snmp system-contact admin
```

4. Optionally, enable MIB-II Support using the **snmp mib-ii** command:

```
vx-node1/config# snmp mib-ii enable
```

5. Set the SNMP System Location using the **snmp system-location** command:

```
vx-node1/config# snmp system-location anywhere
```

6. Set the SNMP Trap Destination with one or more SNMP server IP address using the **snmp trap** command:

```
vx-node1/config# snmp trap add 1.1.2.1
```

## To Configure the Ethernet Interface

Using the configure command **adapter > ethernet adapter mode > interface** syntax, follow the tasks in this step to configure the Ethernet Interface.

1. Change to Ethernet adapter configuration mode using the config command:

```
vx-node1#config eth adapter interface
```

2. Select an IP interface using the interface command:

```
vx-node1/config/eth1#interface ip 1
```

3. Enable SNMP on this IP interface using the snmp command:

```
vx-node1/config/eth1/ip1#snmp enable
```

Next, using the configure command **adapter**, follow the tasks in this step to configure the Ethernet Adapter.

Ethernet adapter entries in VX configuration are used to set values for 'ifName', 'ifAlias' and 'ifDesc' MIB of the 'ifTable' and 'ifXTable'.

## To Configure the Ethernet Adapter

1. Select an Ethernet adapter using the adapter command

```
vx-node1# adapter eth1  
vx-node1/config/eth1#
```

2. Set the description for the adapter:

```
vx-node1/config/eth1# desc purposeOfAdaptor
```