

Configure Simple Network Management Protocol (SNMP) Communities on a Switch

Objective

Simple Network Management Protocol (SNMP) is a network management protocol which helps to record, store, and share information about the devices in the network. This helps the administrator address network issues. Access rights in SNMPv1 and SNMPv2 are managed by the definition of communities. Community names are shared keys between the SNMP management stations and the devices.

This document aims to show you how to configure an SNMP community on a switch. It assumes that SNMP Views has already been configured for the device. For more information, click [here](#). To learn more about SNMP Groups, click [here](#).

Applicable Devices

- Sx250 Series
- Sx300 Series
- Sx350 Series
- SG350X Series
- Sx500 Series
- Sx550X Series

Software Version

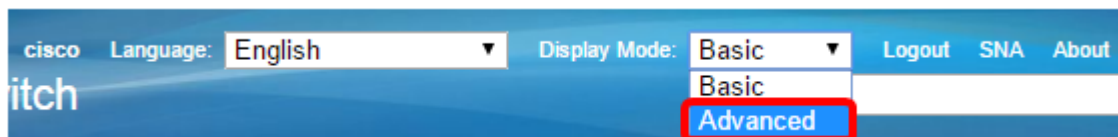
- 1.4.7.05 — Sx300, Sx500
- 2.2.8.04 — Sx250, Sx350, SG350X, Sx550X

Configure SNMP Community on a Switch

Step 1. Log in to the web-based utility of the switch.

Step 2. Change the Display Mode to **Advanced**.

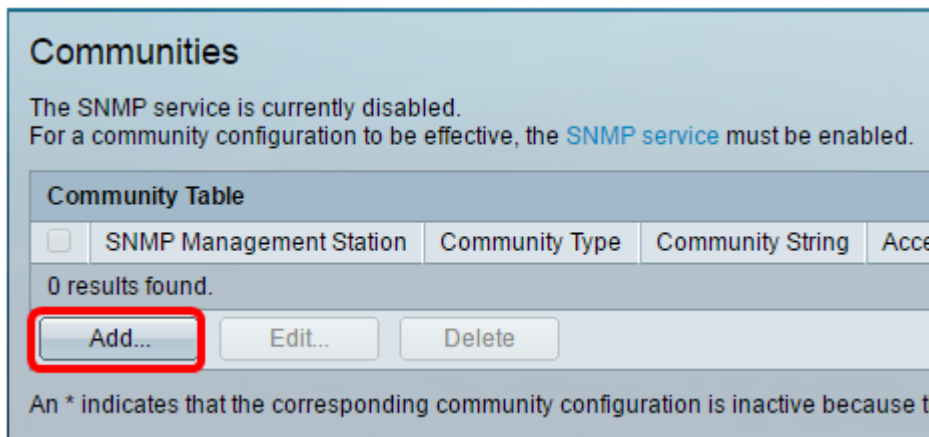
Note: This option is not available on the SG300 Series and SG500 Series switch. If you have those models, skip to [Step 3](#).



[Step 3](#). Choose **SNMP > Communities**.



Step 4. Click **Add** to create a new SNMP community.



Step 5. Click the radio button for the SNMP Management Station. The options are:

- All — This option gives any IP device the ability to access the SNMP community.
- User Defined — This option lets you enter the management station IP address manually.

SNMP Management Station: All User Defined

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

IP Address:

Community String: (14/20 characters used)

Basic Advanced

Access Mode Read Only Read Write SNMP Admin

View Name

Group Name

Note: In this example, User Defined is chosen. If All is chosen, skip to [Step 8](#).

Step 6. Click the radio button of the desired IP Version. The options are:

- Version 6 — Choose this option if the Management Station IP address is an IPv6 address.
- Version 4 — Choose this option if the Management Station IP address is an IPv4 address.

SNMP Management Station: All User Defined

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

IP Address:

Community String: (14/20 characters used)

Basic Advanced

Access Mode Read Only Read Write SNMP Admin

View Name

Group Name

Note: In this example, Version 6 is chosen. If version 4 is chosen, proceed to [Step 8](#).

Step 7. Choose the IPv6 Address Type. The options are:

- Link Local — This option is chosen when the Address starts with FE80, uniquely identified on a single network link, and used for local network communication.
- Global — This option is chosen when the Address used is reachable from other

networks.

The screenshot shows the configuration page for an SNMP Management Station. The 'SNMP Management Station' is set to 'User Defined'. The 'IP Version' is set to 'Version 6'. The 'IPv6 Address Type' is set to 'Link Local', which is circled in red. The 'Link Local Interface' is set to 'VLAN 1'. The 'IP Address' field contains 'fe80::200:f8ff:fe21:67cf'. The 'Community String' is 'Test_Community' (14/20 characters used). Under the 'Basic' tab, 'Access Mode' is set to 'Read Write' and 'View Name' is 'Default'. The 'Advanced' tab is also visible. At the bottom, there are 'Apply' and 'Close' buttons.

Note: In this example, Link Local is chosen. If Global is chosen, skip to [Step 10](#).

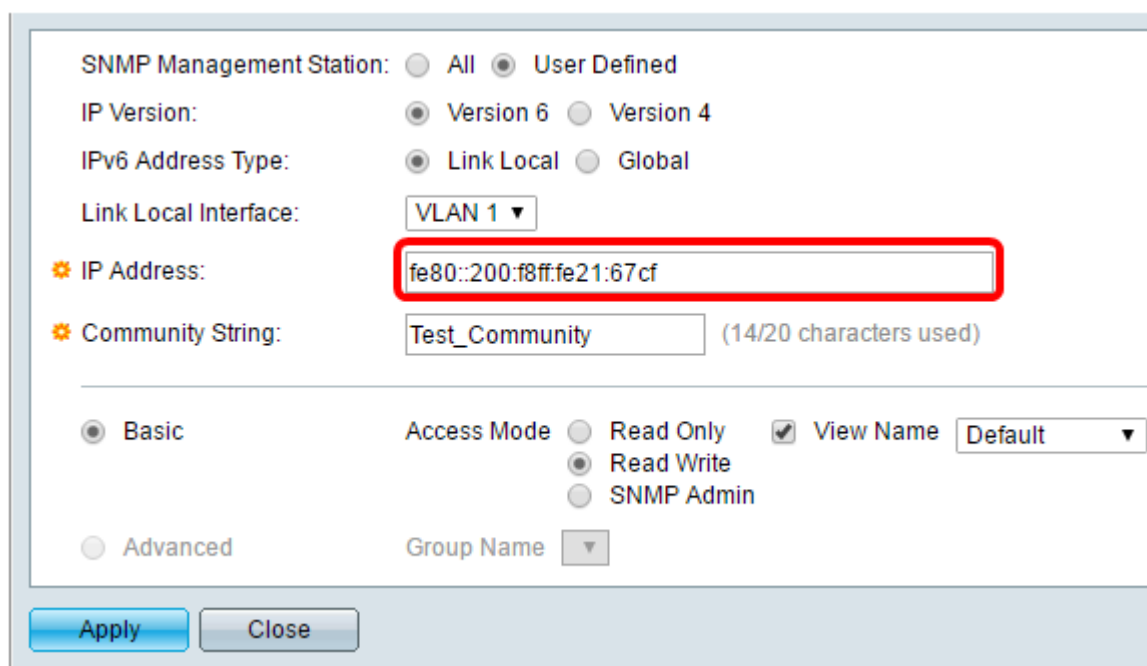
Step 8. Choose the Interface through which the address is received from the Link Local Interface drop-down list. The options are:

- VLAN — This option uses a Virtual Local Area Network (VLAN) as the interface through which the address is received. VLANs help create logical broadcast domains that can span a single switch or multiple switches across the network.
- ISATAP — This option uses the Intra-Site Automatic Tunnel Addressing Protocol (ISATAP) to provide tunneling in three ways, the host-to-router, the router-to-host, and the host-to-host configuration. It helps provide automatic tunnels of IPv6 over IPv4. ISATAP is a point to multipoint tunneling mechanism which connects dual stack nodes in an IPv4 network, and is used in linking IPv4 and IPv6 networks.

This screenshot is similar to the previous one, but the 'Link Local Interface' dropdown menu is open, showing 'VLAN 1' as the selected option, which is highlighted with a red box. The rest of the configuration remains the same.

Note: In this example, VLAN 1 is chosen.

Step 9. Enter the IP address of the SNMP management station in the *IP Address* field.



SNMP Management Station: All User Defined

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1 ▾

✱ IP Address: fe80::200:f8ff:fe21:67cf

✱ Community String: Test_Community (14/20 characters used)

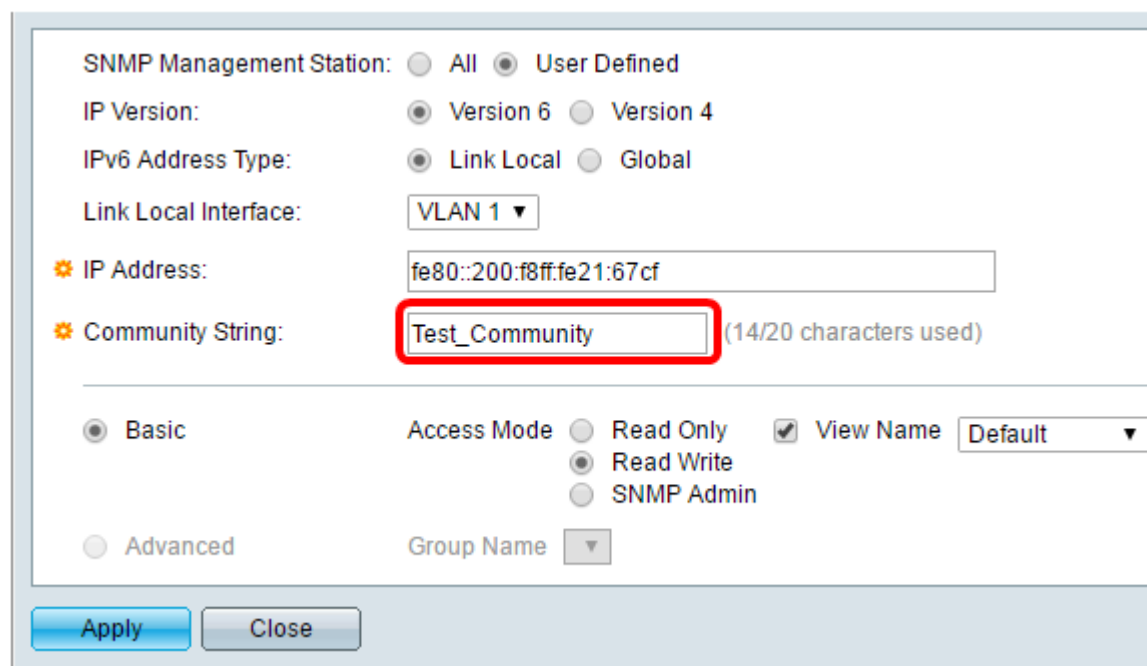
Basic Access Mode Read Only View Name Default ▾
 Read Write
 SNMP Admin

Advanced Group Name ▾

Apply Close

Note: In this example, the IP Address is fe80::200:f8ff:fe21:67cf.

[Step 10.](#) Enter the community name that is used to authenticate the management station to the device in the *Community String* field.



SNMP Management Station: All User Defined

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface: VLAN 1 ▾

✱ IP Address: fe80::200:f8ff:fe21:67cf

✱ Community String: Test_Community (14/20 characters used)

Basic Access Mode Read Only View Name Default ▾
 Read Write
 SNMP Admin

Advanced Group Name ▾

Apply Close

Note: In this example, the community string is Test_Community.

Step 11. Choose one of the radio buttons for the given community.

- Basic — Basic mode helps choose the community access level. The options are:
- Read Only — Users are only allowed to read.
- Read Write — Users can read, write and can change the device configuration. However they won't be able to modify the community.
- SNMP Admin — All users can access all device configuration and can modify the community.

- **Advanced** — This option is available only if IPv6 Link Local is chosen in Step 7. It gives access rights to group members associated with the group name. Choose the group name from the Group Name drop-down list.

The screenshot shows the SNMP configuration interface. The 'SNMP Management Station' is set to 'User Defined'. The 'IP Version' is 'Version 6'. The 'IPv6 Address Type' is 'Link Local'. The 'Link Local Interface' is 'VLAN 1'. The 'IP Address' is 'fe80::200:f8ff:fe21:67cf'. The 'Community String' is 'Test_Community' (14/20 characters used). The 'Basic' mode is selected, and the 'Access Mode' is 'Read Write'. The 'View Name' is set to 'Default'. The 'Advanced' mode is also visible but not selected. The 'Group Name' drop-down is empty. The 'Apply' and 'Close' buttons are at the bottom.

Note: In this example, Basic is chosen.

Step 12. (Optional) Check the View Name check box and choose the name of the SNMP view from the View Name drop-down list that specifies the collection of MIB subtrees to which access is granted. This allows you to give appropriate permissions based on the option chosen from the Basic mode.

The screenshot shows the same SNMP configuration interface as the previous one. The 'View Name' check box is now checked, and the 'View Name' drop-down list is open, showing 'Default' selected. The 'Access Mode' is still 'Read Write'. The 'Advanced' mode is still not selected. The 'Group Name' drop-down is still empty. The 'Apply' and 'Close' buttons are at the bottom.

Note: The View Name option is not available when in SNMP Admin or in Advanced mode. In this example, Default is chosen.

Step 13. Click **Apply**.

SNMP Management Station: All User Defined

IP Version: Version 6 Version 4

IPv6 Address Type: Link Local Global

Link Local Interface:

IP Address:

Community String: (14/20 characters used)

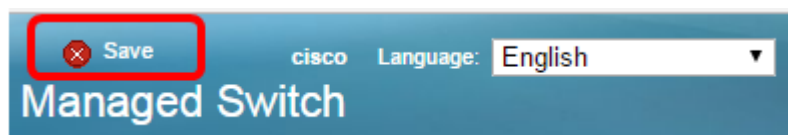
Basic Access Mode Read Only View Name

Read Write

SNMP Admin

Advanced Group Name

Step 14. (Optional) Click **Save** to save the settings to the startup configuration file.



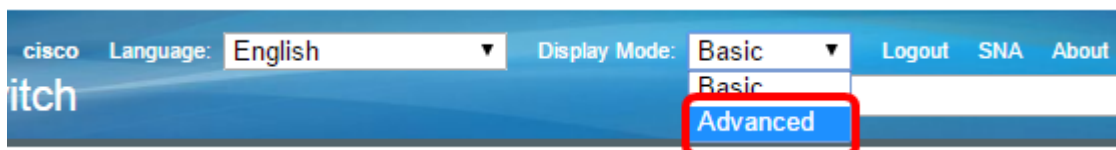
You should now have successfully added a community on the switch.

Manage SNMP Community

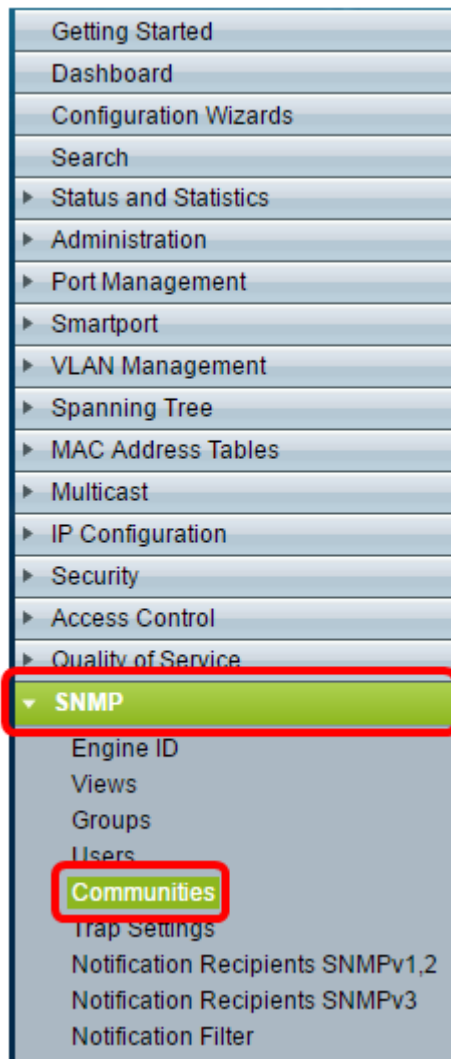
Step 1. Log in to the web-based utility of the switch.

Step 2. Change the Display Mode to **Advanced**.

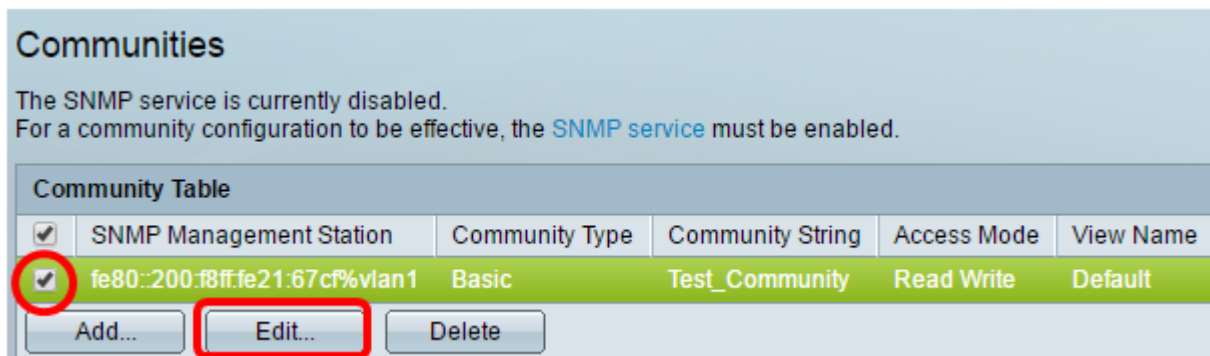
Note: This option is not available on the SG300 Series and SG500 Series switch. If you have those models, skip to [Step 3](#).



[Step 3](#). Choose **SNMP > Communities**.



Step 4. Check the check box for the community that you need to edit and then click the **Edit** button.



Step 5. Edit the desired fields.

SNMP Management Station: All User Defined
IP Version: Version 6 Version 4
IPv6 Address Type: Link Local Global
Link Local Interface:
IP Address:
Community String: (14/20 characters used)

Basic Access Mode Read Only View Name
 Read Write
 SNMP Admin
 Advanced Group Name

Step 6. Click **Apply**.

SNMP Management Station: All User Defined
IP Version: Version 6 Version 4
IPv6 Address Type: Link Local Global
Link Local Interface:
IP Address:
Community String: (14/20 characters used)

Basic Access Mode Read Only View Name
 Read Write
 SNMP Admin
 Advanced Group Name

Step 7. (Optional) In order to delete the communities from the Community Table, check the corresponding check box and click **Delete**.

Communities

The SNMP service is currently disabled.
For a community configuration to be effective, the [SNMP service](#) must be enabled.

Community Table					
<input checked="" type="checkbox"/>	SNMP Management Station	Community Type	Community String	Access Mode	View Name
<input checked="" type="checkbox"/>	fe80::200:f8ff:fe21:67cf%vlan1	Basic	Test_Community	Read Write	Default

Step 8. (Optional) Click **Save** to save the settings to the startup configuration file.



You should now have successfully deleted an SNMP community from your switch.