

Configuration of Simple Network Management Protocol (SNMP) Engine ID on Sx500 Series Stackable Switches

Objective

Simple Network Management Protocol (SNMP) is an application-layer protocol that allows an SNMP manager to control an SNMP agent through the exchange of SNMP messages. SNMP helps to find and solve network problems, manage network performance, and plan for network growth. SNMPv3 is an advanced version of SNMP that provides more security standards and privacy. The Engine ID is used only by SNMPv3 entities or agents to uniquely identify them. This article explains how to configure an SNMP engine ID on the SX500 Series Stackable Switches.

Note: To add SNMP users refer to article [Configuration of SNMP Users on Sx500 Stackable Switches](#).

Applicable Devices

- Sx500 Series Stackable Switches

Software Version

- 1.3.0.62

Configuration of SNMP Engine ID

Local Engine ID Configuration

Step 1. Log in to the web configuration utility and choose **SNMP > Engine ID**. The *Engine ID* page opens:

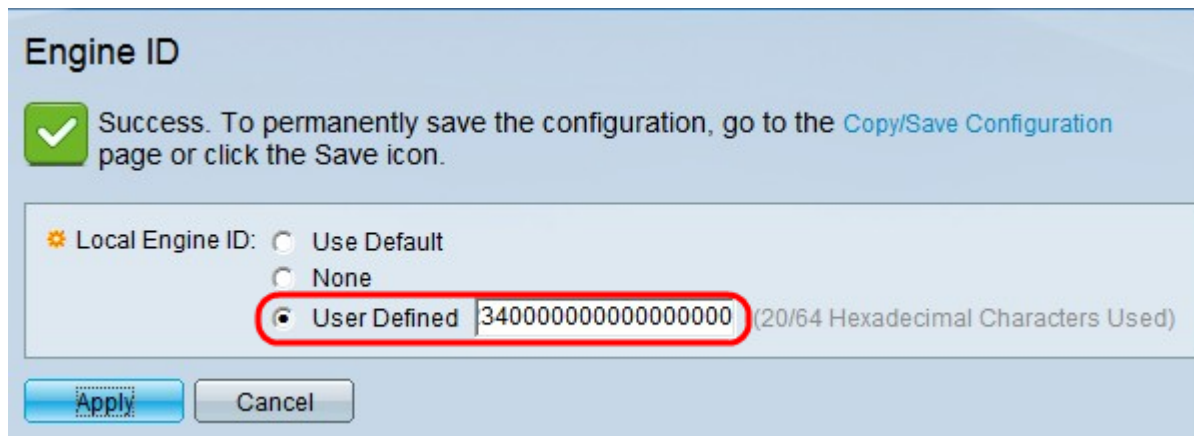
The screenshot shows the 'Engine ID' configuration page. At the top, there's a section for 'Local Engine ID' with three radio button options: 'Use Default' (selected), 'None', and 'User Defined'. The 'User Defined' option is followed by a text input field and a label '(0/64 Hexadecimal Characters Used)'. Below this section are 'Apply' and 'Cancel' buttons. The bottom section is titled 'Remote Engine ID Table' and contains a table with two columns: 'IP Address' and 'Engine ID'. Below the table, it says '0 results found.' and there are three buttons: 'Add...', 'Edit...', and 'Delete'.

IP Address	Engine ID
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Note: Local engine ID is defined by the unique identifier of SNMP engine, its usually used for identification but not for addressing. The local device engine ID Indicates Configuring SNMP. When the engine ID is changed, all the configured SNMP users and SNMP groups are erased.

Step 2. At the *Local Engine ID* field, click one of the desired radio buttons through which the local engine ID is to be created:

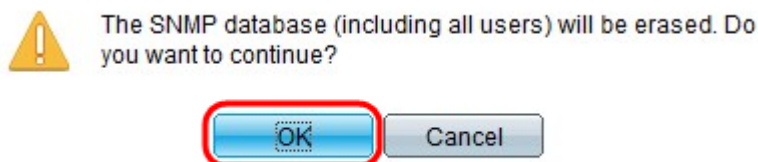
- Use Default — This uses the device-generated engine ID and is based on the MAC address of the switch, which is defined as follows:
 - First 4 octets — The first bit is equal to 1 and the rest will be the Internet Assigned Numbers Authority (IANA) enterprise number.
 - Fifth octet — This is set equal to 3 to indicate the MAC address which follows.
 - Last 6 octets — This is simply the MAC address that belongs to the switch.
- None — This option will indicate that no engine ID is used.
- User Defined — This allows the user to enter the local device engine ID.



The image shows a dialog box titled "Engine ID". At the top, there is a green checkmark icon and a message: "Success. To permanently save the configuration, go to the [Copy/Save Configuration](#) page or click the Save icon." Below this, there is a section for "Local Engine ID:" with three radio button options: "Use Default", "None", and "User Defined". The "User Defined" option is selected and circled in red. To the right of the "User Defined" option is a text input field containing the hexadecimal string "34000000000000000000" and a label "(20/64 Hexadecimal Characters Used)". At the bottom of the dialog, there are two buttons: "Apply" and "Cancel".

Step 3. If you chose User Defined in Step 2, enter the desired engine ID at the field provided beside it. The engine ID must be a hexadecimal string that ranges from 10 to 64. There must be minimum 20 hexadecimal characters.

Step 4. Click **Apply** to save the settings.

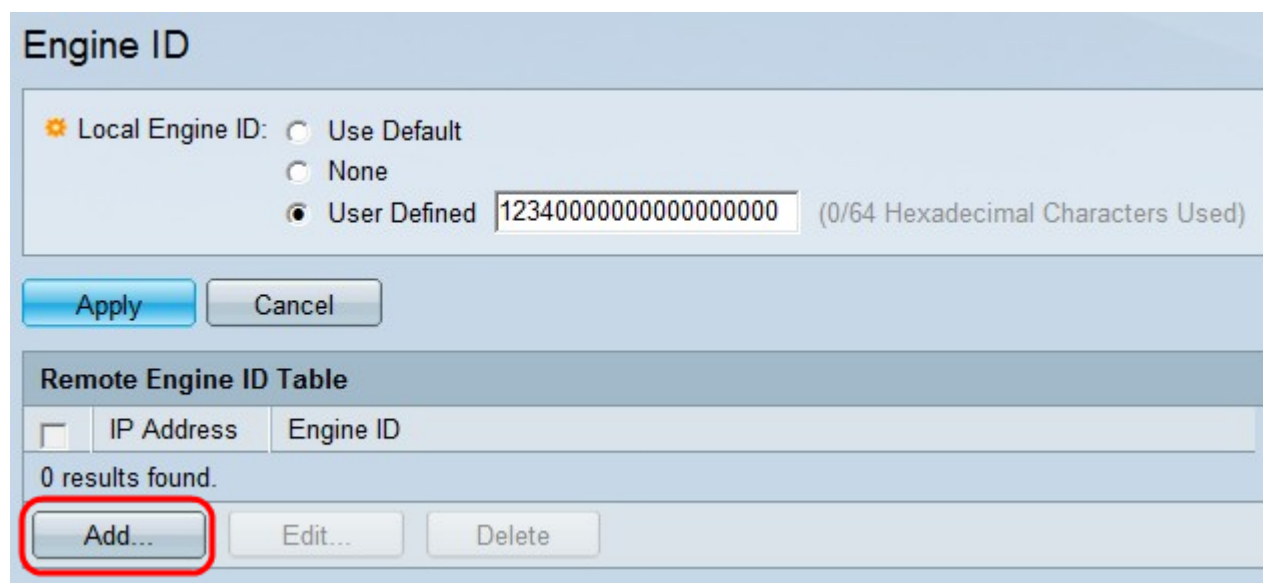


Step 5. Click **OK** to confirm a database erase.

Remote Engine ID Configuration

A User is connected to a different SNMP entity besides the local switch. Remote Engine ID is defined, remote devices receive inform messages, but cannot make requests for information.

Step 1. Log in to the web configuration utility and choose **SNMP > Engine ID**. The *Engine ID* page opens:



Step 2. In the *Remote Engine ID* table, click **Add** to add a new remote engine ID to be mapped with your own SNMP engine ID. The table below will show all of the added remote engine ID and IP addresses to which your engine can talk or send messages. A new window appears.



Step 3. In the *Server Definition* field, choose whether to specify the remote engine by its IP address or by name:

- By name — To specify a website name or a domain name.
- By IP Address — To specify a website IP address (Example: 192.168.1.200).

Step 4. If you clicked **By IP Address** in Step 3, click either **Version 4** or **Version 6** based upon the type of remote IP address (IPv4 or IPv6).

Step 5. If **IPv6** is chosen at Step 4, click one of the IPv6 Address Type radio buttons.

- Link Local — The IPv6 address identifies each and every hosts on a single network link. A link local address is not routable and can be used for communication only on the local network.
- Global — The IPv6 address is a global Unicast IPv6 type that is visible and reachable from other networks.

Step 6. If **Link Local** is chosen for the IPv6 Address type at Step 9, choose the interface

from the drop-down list. You may see prefixes of all the available interfaces in the list. The interfaces can be configured under IPv6 interfaces. Refer the article entitled [IPv6 Interface Configuration on Sx500 Series Stackable Switches](#) for detailed instructions.

Server Definition: ☒ By IP address ☐ By name

IP Version: ☒ Version 6 ☐ Version 4

IPv6 Address Type: ☒ Link Local ☐ Global

Link Local Interface: FE1/2/1

Server IP Address/Name: fe80::a9be:ef5a:c8ab:e310

Engine ID: 12340000000000000000 (20/64 Hexadecimal Characters Used)

Apply Close

Step 7. With respect to the option clicked at Step 3, enter the IP address or domain name of the server in the *Server IP Address/Name* field.

Step 8. In the *Engine ID* field, enter the remote engine ID associated with the respective IP address/domain name that you entered in Step 7.

Step 9. Click **Apply**.

Edit an SNMP Engine ID

Step 1. Log in to the web configuration utility and choose **SNMP > Engine ID**. The *Engine ID* page opens:

Engine ID

Local Engine ID: ☐ Use Default ☐ None ☒ User Defined 12340000000000000000 (0/64 Hexadecimal Characters Used)

Apply Cancel

Remote Engine ID Table	
IP Address	Engine ID
<input checked="" type="checkbox"/> 192.168.1.253	12340000000000000000
<input type="checkbox"/> fe80::a9be:ef5a:c8ab:e310%fa1/2/1	12340000000000000000

Add... Edit... Delete

Step 2. Check the desired check box and click **Edit** to edit an SNMP Engine ID. A new window appears.

IP Address: 192.168.1.253

Engine ID: 12340000000000000000 (20/64 Hexadecimal Characters Used)

Apply Close

Step 3. (Optional) Choose the IP address from the IP Address drop-down list whose engine ID needs to be edited.

IP Address: 192.168.1.253

Engine ID: 12340000000000000000 (20/64 Hexadecimal Characters Used)

Apply Close

Step 4. In the *Engine ID* field, enter the desired the engine ID.

Step 5. Click **Apply** to save the changes.

Remote Engine ID Table	
<input type="checkbox"/> IP Address	Engine ID
<input type="checkbox"/> 192.168.1.253	16340000000000000000
<input type="checkbox"/> fe80::a9be:ef5a:c8ab:e310%fa1/2/1	12340000000000000000
Add... Edit... Delete	

Note: You are not able to change the Server Definition or IP Version when you edit an existing mapping. You need to create a new one for such changes.

Delete an SNMP Engine ID

Step 1. Log in to the web configuration utility and choose **SNMP > Engine ID**. The *Engine ID* page opens:

Local Engine ID: ☐ Use Default ☐ None ☒ User Defined 12340000000000000000 (0/64 Hexadecimal Characters Used)

Apply Cancel

Remote Engine ID Table	
<input checked="" type="checkbox"/> IP Address	Engine ID
<input checked="" type="checkbox"/> 192.168.1.253	12340000000000000000
Add... Edit... Delete	

Step 2. If you need to delete SNMP mapping from the *Remote Engine ID* table check the appropriate check box and click **Delete**.