

Configure Telephony Organizationally Unique Identifier (OUI) on the 200/300 Series Managed Switches

Objective

Organizationally Unique Identifiers (OUI) are the first three bytes of a MAC Address, while the last three bytes contain a unique station ID. You can add a specific manufacturer with the OUI. Once the OUI is added, all traffic received on voice VLAN ports from the specific IP phone with a listed OUI is forwarded on the voice VLAN. Unlike the telephony OUI mode that detects voice devices based on telephony OUI, Auto Voice VLAN mode depends on auto smartport to dynamically add the ports to the voice VLAN.

The objective of this article is to explain how to configure telephony OUI on the 200/300 Series Managed Switches.

Applicable Devices

- SF/SG 200 and SF/SG 300 Series Managed Switches

Software Version

- 1.3.0.62

Enable Telephony OUI

Step 1. Log in to the web configuration utility and choose **VLAN Management > Voice VLAN > Properties**. The *Properties* page opens:

Properties

Auto Smartport is currently disabled. Auto Smartport and Telephony OUI are mutually exclusive.
CoS/802.1p and DSCP values are used only for [LLDP MED Network Policy](#) and [Auto Voice VLAN](#).

Voice VLAN Settings

Operational Status can be affected by [Auto Voice VLAN](#) if enabled

Administrative Status	Operational Status
Voice VLAN ID: <input type="text" value="10"/> (Range: 1 - 4094, Default: 1)	Voice VLAN ID: 1
CoS/802.1p: <input type="text" value="5"/> (Default: 5)	CoS/802.1p: 5
DSCP: <input type="text" value="46"/> (Default: 46)	DSCP: 46

Dynamic Voice VLAN Settings

Dynamic Voice VLAN: Enable Auto Voice VLAN
 Enable Telephony OUI
 Disable

Auto Voice VLAN Activation: Immediate
 By external Voice VLAN trigger

Step 2. Enter the voice VLAN ID for voice traffic in the *Voice VLAN ID* field.

Note: The voice VLAN ID cannot be the same as the default Voice VLAN ID.

Step 3. (Optional) Choose the class of service (CoS) queue from the *CoS/802.1p* drop-down list to place voice traffic. This value is used by LLDP-MED (Link Layer Discovery Protocol - Media Endpoint Discovery Protocol) as a voice network policy.

Step 4. (Optional) Choose the differentiated services code point (DSCP) from the *DSCP* drop-down list to mark the incoming voice packets with the respective service. This value is used by LLDP-MED (Link Layer Discovery Protocol - Media Endpoint Discovery Protocol) as a voice network policy.

Note: For more information about LLDP-MED network policy, refer to the article [Link Layer Discovery Protocol \(LLDP\) Media Endpoint Discovery \(MED\) Network Policy Configuration on the 200/300 Series Managed Switches](#).

Note: In the *Operational Status* field, you can find the current configured values for Voice VLAN ID, CoS/802.1p, and DSCP.

Step 5. In the *Dynamic Voice VLAN* field, click **Enable Telephony OUI** to enable telephony OUI.

Step 6. Click **Apply** to save the configuration.

Add a New OUI to Telephony OUI Table

Step 1. Log in to the web configuration utility and choose **VLAN Management > Voice VLAN > Telephony OUI**. The *Telephony OUI* page opens:

Telephony OUI

Telephony OUI Operational Status: Enabled

CoS/802.1p: ▼

Remark CoS/802.1p:

⚡ Auto Membership Aging Time: day(s) hr(s) min(s) (1min. - 30 days)

Telephony OUI Table	
<input type="checkbox"/>	Telephony OUI Description
<input type="checkbox"/>	00-01-e3 Siemens_AG_phone_____
<input type="checkbox"/>	00-03-6b Cisco_phone_____
<input type="checkbox"/>	00-09-6e Avaya_____
<input type="checkbox"/>	00-0f-e2 H3C_Aolynk_____
<input type="checkbox"/>	00-60-b9 Philips_and_NEC_AG_phone
<input type="checkbox"/>	00-d0-1e Pingtel_phone_____
<input type="checkbox"/>	00-e0-75 Polycom/Veritel_phone___
<input type="checkbox"/>	00-e0-bb 3Com_phone_____

Note: The *Telephony OUI Operational Status* field displays the current status of telephony OUI.

Step 2. (Optional) Choose the class of service (CoS) queue from the *CoS/802.1p* drop-down list to assign to voice traffic.

Step 3. (Optional) Check the **Remark CoS/802.1p** check box to have outgoing voice traffic to be marked with the selected CoS value.

Step 4. Enter the time in the *Auto Membership Aging Time* field that you would like to maintain an interface to be part of the voice VLAN after the time to live value expired on all the MAC addresses of the phones detected on the interface.

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

Telephony OUI

Telephony OUI Operational Status: Enabled

CoS/802.1p: ▼

Remark CoS/802.1p:

Auto Membership Aging Time: day(s) hr(s) min(s) (1min. - 30 days)

Telephony OUI Table

<input type="checkbox"/>	Telephony OUI	Description
<input checked="" type="checkbox"/>	00-01-e3	Siemens_AG_phone_____
<input type="checkbox"/>	00-03-6b	Cisco_phone_____
<input type="checkbox"/>	00-09-6e	Avaya_____
<input type="checkbox"/>	00-0f-e2	H3C_Aolynk_____
<input type="checkbox"/>	00-60-b9	Philips_and_NEC_AG_phone
<input type="checkbox"/>	00-d0-1e	Pingtel_phone_____
<input type="checkbox"/>	00-e0-75	Polycom/Veritel_phone____
<input type="checkbox"/>	00-e0-bb	3Com_phone_____

Step 6. (Optional) To delete all the telephony OUI entries, check the top check box in the Telephony OUI Table, and then click **Delete**.

Step 7. (Optional) To delete a specific telephony OUI entry, check the check box of the telephony OUI you would like to delete, and click **Delete**.

Step 8. (Optional) To delete all the user-defined telephony OUI entries and maintain the default telephony OUI, click **Restore Default OUIs**.

Telephony OUI

Telephony OUI Operational Status: Enabled

CoS/802.1p:

Remark CoS/802.1p:

Auto Membership Aging Time: day(s) hr(s) min(s) (1min. - 30 days)

Telephony OUI Table

<input type="checkbox"/>	Telephony OUI	Description
<input type="checkbox"/>	00-01-e3	Siemens_AG_phone_____
<input type="checkbox"/>	00-03-6b	Cisco_phone_____
<input type="checkbox"/>	00-09-6e	Avaya_____
<input type="checkbox"/>	00-0f-e2	H3C_Aolynk_____
<input type="checkbox"/>	00-60-b9	Philips_and_NEC_AG_phone
<input type="checkbox"/>	00-d0-1e	Pingtel_phone_____
<input type="checkbox"/>	00-e0-75	Polycom/Veritel_phone__
<input type="checkbox"/>	00-e0-bb	3Com_phone_____

Step 9. To add a new telephony OUI, click **Add**. The *Add Telephony OUI* window appears.

Telephony OUI: (3 Octets)

Description: (13/32 Characters Used)

Step 10. Enter the first three octets of the device MAC address in the *Telephony OUI* field.

Step 11. (Optional) Enter a description of the OUI in the *Description* field.

Step 12. Click **Apply** to add the telephony OUI.

The image below shows the changes after the configuration.

Telephony OUI

Telephony OUI Operational Status: Disabled

CoS/802.1p: ▾

Remark CoS/802.1p:

Auto Membership Aging Time: day(s) hr(s) min(s) (1min. - 30 days)

Telephony OUI Table

<input type="checkbox"/>	Telephony OUI	Description
<input type="checkbox"/>	00-01-e3	Siemens_AG_phone_____
<input type="checkbox"/>	00-03-6b	Cisco_phone_____
<input type="checkbox"/>	00-09-6e	Avaya_____
<input type="checkbox"/>	00-0f-e2	H3C_Aolynk_____
<input type="checkbox"/>	00-60-b9	Philips_and_NEC_AG_phone
<input type="checkbox"/>	00-d0-1e	Pingtel_phone_____
<input type="checkbox"/>	00-e0-75	Polycom/Veritel_phone____
<input type="checkbox"/>	00-e0-bb	3Com_phone_____
<input type="checkbox"/>	aa-bb-cc	NorthPhoneOUI

Add Interface to Voice VLAN on Basis of OUIs

Step 1. Log in to the web configuration utility and choose **VLAN Management > Voice VLAN > Telephony OUI Interface**. The *Telephony OUI Interface* page opens:

Telephony OUI Interface

Interface Settings Table		Showing 1-26 of 26		All	per page
Filter: <i>Interface Type</i> equals to <input type="text" value="Port"/> <input type="button" value="Go"/>					
	Entry No.	Interface	Telephony OUI VLAN Membership	Telephony OUI QoS Mode	
<input checked="" type="radio"/>	1	FE1	Disabled	MAC Address	
<input type="radio"/>	2	FE2	Disabled	MAC Address	
<input type="radio"/>	3	FE3	Disabled	MAC Address	
<input type="radio"/>	4	FE4	Disabled	MAC Address	
<input type="radio"/>	5	FE5	Disabled	MAC Address	
<input type="radio"/>	6	FE6	Disabled	MAC Address	
<input type="radio"/>	7	FE7	Disabled	MAC Address	
<input type="radio"/>	8	FE8	Disabled	MAC Address	
<input type="radio"/>	9	FE9	Disabled	MAC Address	
<input type="radio"/>	10	FE10	Disabled	MAC Address	
<input type="radio"/>	11	FE11	Disabled	MAC Address	
<input type="radio"/>	12	FE12	Disabled	MAC Address	
<input type="radio"/>	13	FE13	Disabled	MAC Address	
<input type="radio"/>	14	FE14	Disabled	MAC Address	
<input type="radio"/>	15	FE15	Disabled	MAC Address	
<input type="radio"/>	16	FE16	Disabled	MAC Address	
<input type="radio"/>	17	FE17	Disabled	MAC Address	
<input type="radio"/>	18	FE18	Disabled	MAC Address	
<input type="radio"/>	19	FE19	Disabled	MAC Address	
<input type="radio"/>	20	FE20	Disabled	MAC Address	
<input type="radio"/>	21	FE21	Disabled	MAC Address	
<input type="radio"/>	22	FE22	Disabled	MAC Address	
<input type="radio"/>	23	FE23	Disabled	MAC Address	
<input type="radio"/>	24	FE24	Disabled	MAC Address	
<input type="radio"/>	25	GE1	Disabled	MAC Address	
<input type="radio"/>	26	GE2	Disabled	MAC Address	

Step 2. Click the radio button of the interface you would like to configure for telephony OUI.

Step 3. Click **Edit**. The *Edit Interface Setting* window appears.

The screenshot shows a configuration dialog box with the following fields and options:

- Interface:** Radio buttons for **Port** (selected) and **LAG**. The **Port** dropdown is set to **FE1** and the **LAG** dropdown is set to **1**.
- Telephony OUI VLAN Membership:** A checked checkbox labeled **Enable**.
- Voice VLAN QoS Mode:** Radio buttons for **All** and **Telephony Source MAC Address** (selected).

At the bottom of the dialog are two buttons: **Apply** and **Close**.

Step 4. (Optional) If you want to configure a different interface, click either **Port** or **LAG** (Link Aggregation Group) radio buttons in the *Interface* field and choose another interface from the drop-down list.

Note: A LAG combines interfaces into a single logical link, which provides greater bandwidth.

Step 5. Check the **Enable** check box in the *Telephony OUI VLAN Membership* field to enable telephony OUI on the chosen interface. If packets match one of the available telephony OUI, then the interface is added to the voice VLAN.

Step 6. Click one of the available QoS (Quality of Service) modes in the *Voice VLAN QoS Mode* field:

- All — Applies QoS parameters to all packets intended for the voice VLAN.
- Telephone Source MAC Address — Applies QoS parameters to only packets from IP phones.

Step 7. Click **Apply** to save the configuration.

Apply an Interface Configuration to Multiple Interfaces

Step 1. Log in to the web configuration utility and choose **VLAN Management > Voice VLAN > Telephony OUI Interface**. The *Telephony OUI Interface* page opens:

Telephony OUI Interface

Interface Settings Table		Showing 1-26 of 26		All	per page
Filter: <i>Interface Type</i> equals to <input type="text" value="Port"/> <input type="button" value="Go"/>					
	Entry No.	Interface	Telephony OUI VLAN Membership	Telephony OUI QoS Mode	
<input checked="" type="radio"/>	1	FE1	Enabled	MAC Address	
<input type="radio"/>	2	FE2	Disabled	MAC Address	
<input type="radio"/>	3	FE3	Disabled	MAC Address	
<input type="radio"/>	4	FE4	Disabled	MAC Address	
<input type="radio"/>	5	FE5	Disabled	MAC Address	
<input type="radio"/>	6	FE6	Disabled	MAC Address	
<input type="radio"/>	7	FE7	Disabled	MAC Address	
<input type="radio"/>	8	FE8	Disabled	MAC Address	
<input type="radio"/>	9	FE9	Disabled	MAC Address	
<input type="radio"/>	10	FE10	Disabled	MAC Address	
<input type="radio"/>	11	FE11	Disabled	MAC Address	
<input type="radio"/>	12	FE12	Disabled	MAC Address	
<input type="radio"/>	13	FE13	Disabled	MAC Address	
<input type="radio"/>	14	FE14	Disabled	MAC Address	
<input type="radio"/>	15	FE15	Disabled	MAC Address	
<input type="radio"/>	16	FE16	Disabled	MAC Address	
<input type="radio"/>	17	FE17	Disabled	MAC Address	
<input type="radio"/>	18	FE18	Disabled	MAC Address	
<input type="radio"/>	19	FE19	Disabled	MAC Address	
<input type="radio"/>	20	FE20	Disabled	MAC Address	
<input type="radio"/>	21	FE21	Disabled	MAC Address	
<input type="radio"/>	22	FE22	Disabled	MAC Address	
<input type="radio"/>	23	FE23	Disabled	MAC Address	
<input type="radio"/>	24	FE24	Disabled	MAC Address	
<input type="radio"/>	25	GE1	Disabled	MAC Address	
<input type="radio"/>	26	GE2	Disabled	MAC Address	

Step 2. Click the radio button of the interface that you would like to copy to multiple interfaces.

Step 3. Click **Copy Settings**. The *Copy Settings* window appears.

Copy configuration from entry 1 (FE1)

to: (Example: 1,3,5-10 or: FE1,FE3-FE5)

Step 4. Enter the interfaces that you want to apply the configuration to in the *To* field. You can use the interface numbers or the name of the interfaces as input. You can enter each interface separated by a comma (For example: 1, 3, 5 or GE1, GE3, GE5) or you can enter a range of interfaces (For example: 1-5 or GE1-GE5).

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

The image below shows the changes after the configuration.

Telephony OUI Interface

Interface Settings Table

Showing 1-26 of 26 per page

Filter: *Interface Type* equals to

	Entry No.	Interface	Telephony OUI VLAN Membership	Telephony OUI QoS Mode	
<input type="radio"/>	1	FE1	Enabled	MAC Address	
<input type="radio"/>	2	FE2	Disabled	MAC Address	
<input type="radio"/>	3	FE3	Disabled	MAC Address	
<input type="radio"/>	4	FE4	Disabled	MAC Address	
<input type="radio"/>	5	FE5	Enabled	MAC Address	
<input type="radio"/>	6	FE6	Enabled	MAC Address	
<input type="radio"/>	7	FE7	Enabled	MAC Address	
<input type="radio"/>	8	FE8	Enabled	MAC Address	
<input type="radio"/>	9	FE9	Enabled	MAC Address	
<input type="radio"/>	10	FE10	Enabled	MAC Address	
<input type="radio"/>	11	FE11	Disabled	MAC Address	
<input type="radio"/>	12	FE12	Disabled	MAC Address	
<input type="radio"/>	13	FE13	Disabled	MAC Address	
<input type="radio"/>	14	FE14	Disabled	MAC Address	
<input type="radio"/>	15	FE15	Disabled	MAC Address	
<input type="radio"/>	16	FE16	Disabled	MAC Address	
<input type="radio"/>	17	FE17	Disabled	MAC Address	
<input type="radio"/>	18	FE18	Disabled	MAC Address	
<input type="radio"/>	19	FE19	Disabled	MAC Address	
<input type="radio"/>	20	FE20	Disabled	MAC Address	
<input type="radio"/>	21	FE21	Disabled	MAC Address	
<input type="radio"/>	22	FE22	Disabled	MAC Address	
<input type="radio"/>	23	FE23	Disabled	MAC Address	
<input type="radio"/>	24	FE24	Disabled	MAC Address	
<input type="radio"/>	25	GE1	Disabled	MAC Address	
<input type="radio"/>	26	GE2	Disabled	MAC Address	