Cisco Discovery Protocol (CDP) Properties on 200/300 Series Managed Switches

Objective

Cisco Discovery Protocol (CDP) is a Link-Layer Cisco proprietary protocol that allows Cisco devices to communicate regardless of Network Layer connectivity. It is used primarily to communicate protocol addresses and device capabilities. CDP sends frames that contain Type Length Values (TLVs), which contain information about the properties of the port, connection, and/or device.

The objective of this document is to explain the options on the *CDP Properties* page of 200/300 Series Managed Switches.

Applicable Devices

- SF/SG 300 Series Managed Switches

CDP Properties

Step 1. Log in to the web configuration utility and choose **Administration > Discovery - CDP > Properties**. The *Properties* page opens:

Step 2. (Optional) Check **Enable** in the *CDP Status* field to enable CDP on the switch.

Step 3. If Enable is not checked in the *CDP Status* field, click a radio button in the *CDP Frames Handling* field to determine how CDP packets are handled. Skip to Step 15 if you choose not to enable CDP.

- Bridging — Switch forwards CDP packets to ports on the same VLAN as the incoming port.
- Filtering — Switch deletes all incoming CDP packets.
- Flooding — Switch forwards incoming CDP packets to all ports regardless of the VLAN.

Step 4. (Optional) Check **Enable** in the *CDP Voice VLAN Advertisement* field to advertise the voice VLAN in CDP on all ports that are both CDP enabled and are members of the voice VLAN.

Step 5. (Optional) Check **Enable** in the *CDP Mandatory TLVs Validation* field to allow the switch to drop CDP packets that do not contain all of the required TLVs.

Step 6. Click the radio button that corresponds with the CDP version you would like to use in the *CDP Version* field.

- Version 1 — Used for backwards compatibility if a connected device does not support CDP version 2.
- Version 2 — Newest version of CDP and includes more intelligent device tracking features.

Step 7. Click the radio button that corresponds with the method you would like to use to define the CDP hold time in the *CDP Hold Time* field. The CDP hold time is the amount of time (in seconds) that CDP packets are retained before they are discarded.

- Use Default — Default time is 180 seconds.
- User Defined — Enter a time in seconds between 10 and 255.

Step 8. Click the radio button that corresponds with the method you would like to use to define the CDP transmission rate in the *CDP Transmission Rate* field. The CDP transmission rate is the rate CDP packets are sent (in seconds).

- Use Default — Default time is 60 seconds.
- User Defined — Enter a time in seconds between 5 and 254.

Step 9. Click the appropriate radio button to define the format of the device ID in the *Device ID Format* field. When the switch discovers a device that uses CDP, the switch identifies the device by its MAC address or serial number.

Step 10. Click the radio button next to the method used to define the source interface in the *Source Interface* field. The source interface is the IP address in the TLV of the frames.

- Use Default — Uses IP address of the outgoing interface.
- User Defined — Uses IP address of the chosen interface.

Step 11. If User Defined was chosen for Source Interface, choose an interface from the *Interface* drop down list.

Step 12. (Optional) Check **Enable** in the *Syslog Voice VLAN Mismatch* field to cause a SYSLOG message to be sent if the voice VLAN information from the incoming frame does not match the information advertised by the local device.

Step 13. (Optional) Check **Enable** in the *Syslog Native VLAN Mismatch* field to cause a SYSLOG message to be sent if the native VLAN information from the incoming frame does not match the information advertised by the local device.

Step 14. (Optional) Check **Enable** in the Syslog Duplex VLAN Mismatch field to cause a SYSLOG message to be sent if the duplex information from the incoming frame does not match the information advertised by the local device.

Step 15. Click **Apply** to save any changes made or click **Cancel** to undo any changes.

CDP Interface Settings

Step 1. Log in to the Web Configuration Utility and navigate to **Administration > Discovery - CDP > Interface Settings**. A table of all ports and thier settings is displayed:

Step 2. To edit the settings of a port, click the radio button next to the port number in the table, and click **Edit** at the bottom of the table. A pop-up window appears:

Step 3. Click **Apply** to save the changes.

Step 4. To copy setting from one port to other selected ports, select the radio button for the port from which settings are to be copied from. Then click **Copy Settings**. A pop-up window appears: