C H A P T E R **40**

Configuring TelePresence E911 IP Phone Support

Unless otherwise noted, the term switch refers to a standalone switch and to a switch stack.

Note This feature is not supported on switches running the LAN base feature set.

The Catalyst 3750-X and 3560-X switch command reference has command syntax and usage information.

- Understanding TelePresence E911 IP Phone Support, page 40-1
- Configuring TelePresence E911 IP Phone Support, page 40-2

Understanding TelePresence E911 IP Phone Support

You can use a Cisco IP phone as a user interface in a Cisco TelePresence System. See in Figure 1. In this configuration, the IP phone must always be on and available for emergency calls. If the power to the codec in the Cisco TelePresence System fails, is disrupted or if the codec fails, the IP phone is not available.

Figure 40-1 Phone-Codec-Switch Connection
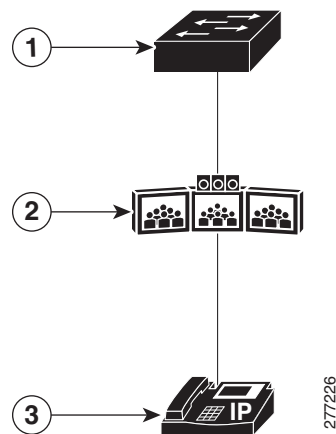
1	Switch	**3**	IP phone
2	Cisco TelePresence System with a codec		

Use the TelePresence E911 IP phone support feature to ensure that the IP phone is always on and available for emergency calls. When a CDP-enabled IP phone is connected to the codec through a switch, you can configure the switch to forward CDP packets from the IP phone only to the codec in the Cisco TelePresence System. The switch adds *ingress-egress port pairs* to the CDP forwarding table. An ingress-egress port pair is a one-to-one mapping between an ingress switch port connected to the IP phone and an egress switch port connected to the codec.

The IP phone and the codec communicate through the IP network. If power to the codec fails, is disrupted or if the codec fails, the IP phone is still connected to the IP network and is available for emergency calls.

The switch forwards all CDP packets received on the ingress port to the egress port. If multiple IP phones are connected to the codec through a single port on the switch, only one phone communicates with it through the IP network. This phone is usually the one that sent the first CDP packet received by the codec.

Figure 40-2   Phone-Switch-Codec Connection
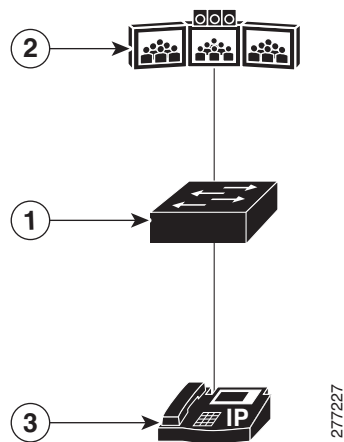
1	Switch	**3**	CDP-enabled IP phone
2	Cisco TelePresence System with a codec		

Configuring TelePresence E911 IP Phone Support

Configuration Guidelines

- You must use only CDP-enabled phones with TelePresence E911 IP phone support.
- You can connect the IP phone and codec in the Cisco TelePresence System through any two ports in a switch stack.

Enabling TelePresence E911 IP Phone Support

Beginning in privileged EXEC mode:

	Command	Purpose
Step 1	**configure terminal**	Enters global configuration mode.
Step 2	**cdp forward ingress** *port-id* **egress** *port-id*	Configures an ingress-egress port pair. • **ingress** *port -id*—Specifies the port connected to the CDP-enabled IP phone. • **egress** *port-id*—Specifies the port connected to the codec in the Cisco TelePresence System. Repeat this step to configure additional ingress-egress port pairs.
Step 3	**end**	Returns to privileged EXEC mode.
Step 4	**show cdp forward**	Verifies the ingress-egress port pairs. The command output also shows the number of forwarded and dropped packets.
Step 5	**copy running-config startup config**	(Optional) Saves your entries in the configuration file.

Example

```
Switch# configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)# cdp forward ingress gigabitethernet2/0/1 egress gigabitethernet2/0/12
Switch(config)# cdp forward ingress gigabitethernet2/0/1 egress gigabitethernet2/0/13
Ingress interface already configured
Switch(config)# cdp forward ingress gigabitethernet2/0/2 egress gigabitethernet2/0/12
Egress interface already configured
Switch(config)# cdp forward ingress gigabitethernet2/0/2 egress gigabitethernet2/0/13
Switch(config)# end
Switch#
*Mar  1 13:38:34.954: %SYS-5-CONFIG_I: Configured from console by console
Switch# show running-config | include cdp
cdp forward ingress GigabitEthernet2/0/1 egress GigabitEthernet2/0/12
cdp forward ingress GigabitEthernet2/0/2 egress GigabitEthernet2/0/13
Switch# show cdp forward

Ingress         Egress          # packets          # packets
Port            Port            forwarded          dropped
-----------------------------------------------------------
 Gi2/0/1        Gi2/0/12            0                  0
 Gi2/0/2        Gi2/0/13            0                  0

Switch# configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)# no cdp forward ingress gigabitethernet2/0/1
Switch(config)# end
Switch#
*Mar  1 13:39:14.120: %SYS-5-CONFIG_I: Configured from console by console
Switch# show running-config | include cdp
cdp forward ingress GigabitEthernet2/0/2 egress GigabitEthernet2/0/13
```

```
Switch# show cdp forward
Ingress        Egress          # packets        # packets
Port           Port            forwarded        dropped
-------------------------------------------------------------
 Gi2/0/2       Gi2/0/13           0                0

Switch#
```