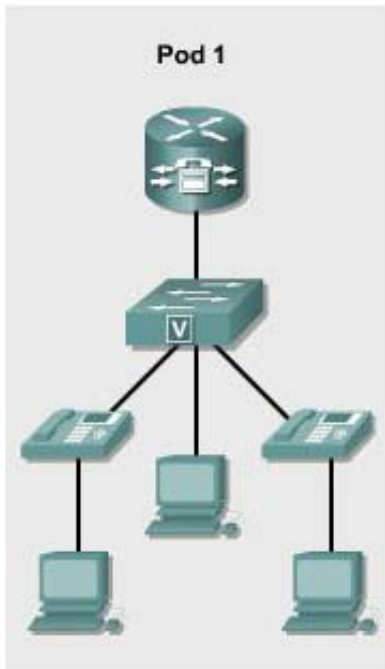


## Lab 2.1.3 Connecting the IP Phone to a Switch



### Objective

- Connect an IP phone to a switch and provide power to it

### Equipment Requirements

- Inline power capable switch or non-inline power switch with power injectors
- Two Cisco IP phones

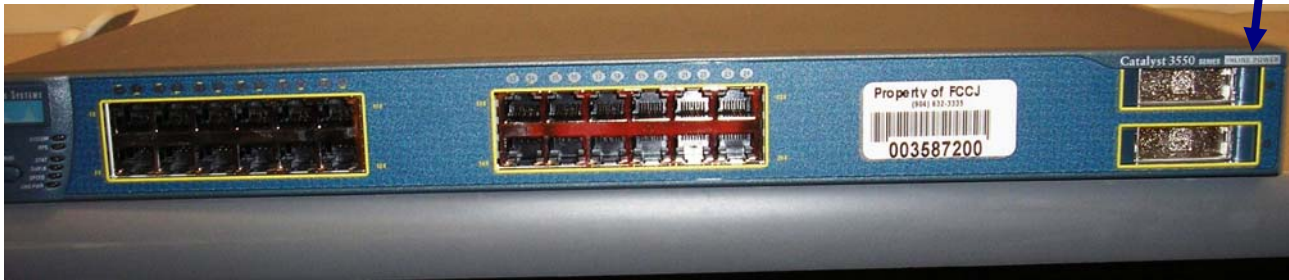
This lab relies on labs 2.1.1 and 2.1.3 being successfully completed and loaded.

In this lab the ACME.com Company wishes to implement IP telephony. In order to do so, the phones must receive power in order to work.

- Cable the two IP phones to a switch
- Provide power to the phones using one or both methods

## Step 1 Understanding the two types of switches

- a. There are two types of switches that can be used with Cisco IP phones: (1) an inline power switch and (2) a non-inline power switch. A switch that can provide power to another device such as an IP phone has the words **INLINE POWER** stenciled on it as shown below.



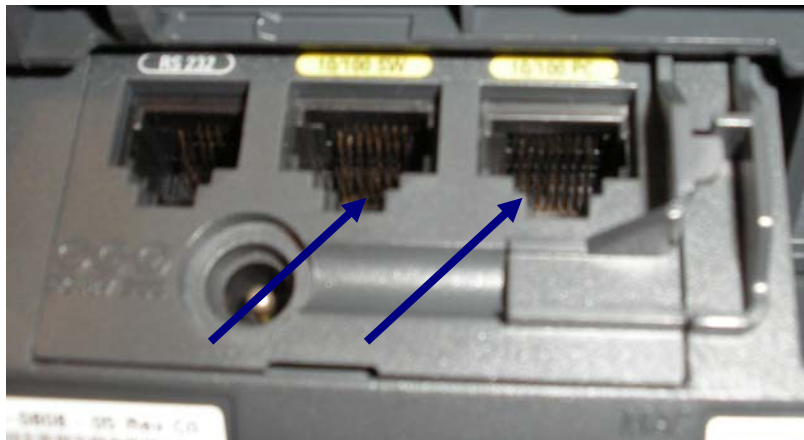
A non-inline power switch does not have the words **INLINE POWER** stenciled on it. An example of this type of switch is the 2950. The 2950 cannot provide power to other devices such as the Cisco IP phone.

- b. Use the Cisco web site to determine if any model of 29xx switch can provide inline power. Record the results. \_\_\_\_\_

## Step 2 Cabling the IP phone to an inline power switch

Note: If an inline power switch is not available, skip to Step 3.

- a. Locate the two RJ-45 ports on the back of the IP phone.



- b. What are the names of the two RJ-45 ports? \_\_\_\_\_
- c. Connect a power cord to the switch that is to provide the inline power. The switch should power on.

- d. Connect a straight-through Ethernet cable from the 10/100 SW port on the IP phone to any 100 MB port on the inline power switch.



- e. What indication is shown that the phone is receiving power? \_\_\_\_\_
- \_\_\_\_\_

### Step 3 Cabling the IP phone to a non-inline power switch

- a. Connect power to the non-inline power switch.
- b. In order to connect a Cisco IP phone to a non-inline power switch, a power injector is needed. Look at the power injector and notice the two RJ-45 jacks on one end of the power injector.



The port on the left labeled 10/100BaseTX to Device is used to connect to the IP phone (via a

straight-through cable). The port on the right labeled 10/100BaseTX to Network is used to connect to a non-inline power switch such as a 2950 switch (via a straight-through cable).

- c. Connect a straight-through cable from the left power injector port labeled 10/100BaseTX To Device to the IP phone port labeled 10/100 SW.
- d. Connect a second straight-through cable from the right power injector port labeled 10/100BaseTX To Network to any non-inline power switch port.
- e. At the opposite end of the power injector module there is a cable that goes to the power supply adapter. The opposite end of the power supply adapter requires an AC power cord.



Plug an AC power cord into the AC adapter. Plug the other end of the AC power cord into an AC wall outlet.

- f. What indication is shown on the phone that power has been applied?

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