Cisco 827-4V Router Configuration
With SIP for Go2Call Service

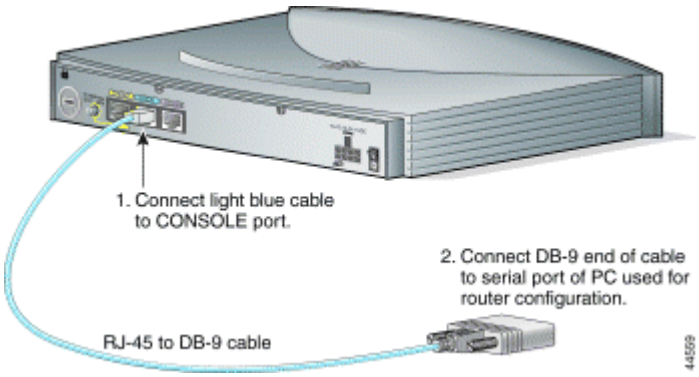
This file provides instructions for setting up Cisco 827-4V Router and SIP for Go2Call service.

The following example uses Cisco 827-4V gateway with four FXS/FXO ports and SIP protocol. Prior to the configuration, you must obtain:

-IP address and Internet service from your local ISP provider
-Account with Go2Call and up to 4 different PIN number
-Cisco 827-4V with all necessary voice cards and modules

STEP 1 Connecting to the PC

Use the blue console cable and DB-9 adaptor. Connect one end of the cable to the Console port on the router, and the other end with DB-9 adaptor to COM 1 or COM2 port on PC.



STEP 2 Terminal Programs

Start any terminal program on the PC (for example, Hyper Terminal). Use the following terminal Settings:

9600 baud rate
No parity
8 data bits
1 stop bot
No flow control

This will power up the router. You will know it has booted up successfully if your receive this prompt:

Router>

STEP 3 General Set-up

To configure the General set-up of your device, enter the following command:

```
Router> enable
Router# config terminal
Router(config-t)# enable secret  password          ←This is to set up a password. Change "password" with any word
                                                    that you want to use for a password.

Router(config-t)# hostname R1   ←Set up the prompt for the router.  Change "R1" to any name.
R1(config-t)# line vty 0 4
R1(config-line)# password pass1    ←   This is the telnet password. Change "pass1" with any desire password.
R1(config-line)# login
R1(config-line)# exit
R1# write mem
```

All changes will now be saved.

STEP 4 Setting the IP Address and Connectivity

Enter the following command to set the IP Address:

```
R1# config ter
R1(config-t)# interface eth 0
R1(config-if)# ip addr 192.168.1.100  255.255.255.0   ←Enter in your IP address and network mask for the local network
                                                       here.
R1(config-if)# no shut
R1(config-if)# exit

 R1(config-t)# ip route 0.0.0.0  0.0.0.0  192.168.1.1   ←Enter your default gateway on the local network here.
R1(config-t)# ^Z
R1# write mem
```

To test the IP connectivity, first connect the Ethernet cable to the Ethernet port on the router. Then enter the following:

```
R1# ping 216.52.153.203
        Type escape sequence to abort.
        Sending 5, 100-byte ICMP Echos to 216.52.153.203, timeout is 2 seconds:
        !!!!!
        Success rate is 100 percent (5/5), round-trip min/avg/max = 28/30/32 ms
```

If you do not see the above output to signal success, check the network connection (Ethernet cable should go from the router to the hub/switch and the IP address must be entered correctly).

STEP 5 Enabling VoIP

To enable VoIP, copy and paste the following output once you are in config-t mode: R1(config-t)#. These are the changes that need to be made:

YourGwName ←Replace with your Gateway name or Company name.
12345678900x ←Replace with your PIN number.
X.X.X.X ←Replace with your IP address from the Ethernet port.

**** If your Cisco 827-4v has a public ip address then use:**

session target ipv4: **216.52.153.209**

**** If your Cisco 827-4v is behind NAT (has private IP address) then use:**

session target ipv4: **216.52.153.217**

Here is the list of the private IP addresses on the Internet:

10.0.0.0 - 10.255.255.255
172.16.0.0 - 172.31.255.255
192.168.0.0 - 192.168.255.255

Go through and make the necessary changes, as indicated in red:

```
voice-port 1
 connection plar 723
 station-id number 123456789001          Change with your PIN
!
voice-port 2
 connection plar 723
 station-id number 123456789002          Change with your PIN
!
voice-port 3
 connection plar 723
 station-id number 123456789003          Change with your PIN
!
voice-port 4
 connection plar 723
 station-id number 123456789004          Change with your PIN
!
```

Continued:

```
dial-peer voice 1 pots
 port 1
!
dial-peer voice 2 pots
 port 2
!
dial-peer voice 3 pots
 port 3
!
dial-peer voice 4 pots
 port 4
!
dial-peer voice 100 voip
 destination-pattern 723
 session protocol sipv2
 session target ipv4:216.52.153.209
 dtmf-relay rtp-nte
 codec g723r63 byte 48

exit
!
gateway

exit
```

Exit and save the settings:

```
R1(config-t)# ^Z
R1# write mem
```

STEP 6 Review the Configuration

You will see the entire router configuration. Verify it with the above config.

```
R1# show run
```

Pick up the phone connected to P1 to P4 port and make a call:

For the USA and Canada dial: 1 + phone_number

For any other country dial: 011 + country_code + phone_number