



Quick Start Guide

CISCO 827 with ADSL

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1. Before You Begin...

Verify that you have the following:

- Cisco 827-4V Router and Power Supply
- Cisco 827 Router Cabling and Set-up Quick Start Guide
- ADSL cable. The cable is usually provided as part of the Cisco 827 package
- ISP details (default gateway IP address and DNS server IP address)
- PC and Ethernet cable initially for configuration of the Cisco 827. A PC is used for monitoring and reporting of the Gateway status, but this does not have to be local to the Cisco 827.
- At least one analogue phone with an RJ11 connector.

The Phoneserve literature including:

- Phoneserve Omni Quick Install Guide (this document)
- Phoneserve Omni Account Details (available from your Account Manager)
- Phoneserve Omni user instructions (available from your Account Manager)



Figure 1. Minimum Setup with a direct DSL connection

2. Cabling the Cisco 827 using a DSL connection

- Connect the ADSL port from the Cisco 827 to your DSL line using the lavender coloured cable provided by Cisco.
- Connect the ETHERNET port from the Cisco 827 to your PC Ethernet port using the yellow cable provided by Cisco.
- Ensure the 'TO HUB/TO PC' switch on the Cisco 827 is set to the 'TO PC' position (out).
- Connect up to 4 analogue phones to the PHONES ports starting with port 1.
- Connect the power supply to the Cisco 827 and turn on the power switch on the back of the 827.



Figure 2. The back of the Cisco 827-4V

3. Connecting to a PABX

If you wish to connect the Cisco 827 to a PABX instead of analogue phones, then you need to ensure that your PABX has available FXO ports. If your PABX only provides FXS ports then converters can be obtained from many suppliers. One such provider is Artech:

<http://www.artech.com.tw/html/english/AX300/AX300.htm>

4. Configuring the Cisco 827

By default, a brand new Cisco 827 is configured with IP Address 10.10.10.1, which in most instances will need to be changed to either a different static address (a dedicated IP address that will not change) or configured for DHCP (IP address allocated by DHCP server, every time you log on).

IMPORTANT:

We recommend configuring the Cisco 827 using the sample configuration procedure below using the IOS (Internal Operating System) command line interface. Do not configure the router using CRWS (Cisco Router Web Start), as this will overwrite critical sections of the SIP configuration and prevent the router from passing SIP messages to Phoneserve.

5. Log in to the Cisco 827:

Your 827 will have been switched on for a few minutes now, and should have finished its power-up tests and basic configurations.

Connect the supplied console cable to the 'console' port on the 827.
Connect the other end to the serial port of a PC.

Go to your pc and launch **HyperTerminal®**
(Start\Programs\Accessories\Communications\Hyper Terminal) or similar software.

When you use this software for the first time you will be asked to enter a Name and select an icon. This option allows you to save your settings for the device you are configuring.

Example: Enter "Cisco 827" in the name field and select your preferred icon. Next time you log-on to your Cisco 827 you can click directly on that saved icon to get to the console, without having to enter your telephone details again.

You will be asked to enter your country of residence, local area telephone code and which COM port to use. You need to select a COM port and click ok.

Connect using: COM1 (select correct serial port)
Bits per second: 9600
Data bits: 8
Parity: none
Stop bits: 1
Flow Control: none

Hit return and you should see the ROUTER> prompt.

6.0 Software Versions

To be able to use our service with the Cisco 827 gateway one of the following software (IOS) versions need to be running:

IP/VOICE 12.2(8)YN -or- IP/VOICE PLUS 12.2(8)YN

Both of these images require 32Mb main memory (DRAM) and 8Mb of flash memory. Details of the supplied memory and flash will be detailed on the documentation supplied with the Cisco 827. For details on how to obtain these versions and upgrade the Cisco 827, please refer to the Cisco website or Cisco instruction manuals.

To determine the software version running on the 827, enter the “**show version**” command from the command line, once you are logged in.

7.0 Configuration of the Cisco 827

Enter the information written in bold according to the following instructions and replace any details written in Italics with the relevant information (Enter the configuration commands carefully, one per line):

```
ROUTER>enable
ROUTER#configure terminal
Enter configuration commands, one per line. End with CTRL/Z.
ROUTER(config)#
```

7.1 Enable VoIP parameters:

In order to configure your 827 for a wires only ADSL connection you will need to contact your ISP for configuration instructions. Each ISP will have there own specific requirements.

```
ROUTER(config)#ip tcp path-mtu-discovery
ROUTER(config)#voice call send-alert
ROUTER(config)#voice rtp send-recv
ROUTER(config)#voice service voip
ROUTER(conf-voi-serv)#sip
ROUTER(conf-serv-sip)#session transport tcp
ROUTER(conf-serv-sip)#rellxx disable
ROUTER(conf-serv-sip)#voice class codec 1
ROUTER(config-class)#codec preference 1 g729br8
ROUTER(config-class)#codec preference 2 g723r63
ROUTER(config-class)#codec preference 3 g729r8
```

7.2 Enter default gateway & DNS server

This step is not required if you are using DHCP.

```
ROUTER(config)#ip route 0.0.0.0 0.0.0.0 IP address of gateway
ROUTER(config)#ip name-server IP address of DNS server
```

HTTP Management Tool

If you enable the management tool you can manage the gateway with HTTP (through your browser). Please note, that this is a security risk, as this makes the gateway accessible with http from the Internet.

Option 1: DISABLE HTTP MANAGEMENT

```
ROUTER(config)#no ip http server
```

Option 2: ENABLE MANAGEMENT TOOL

```
ROUTER(config)#ip http server
ROUTER(config)#ip http authentication local
ROUTER(config)#username Username privilege 15 password 0 Password
```

Configure voice ports

```
ROUTER(config)#voice-port 1
ROUTER(config-voiceport)#timeouts interdigit 5
ROUTER(config-voiceport)#voice-port 2
ROUTER(config-voiceport)#timeouts interdigit 5
ROUTER(config-voiceport)#voice-port 3
ROUTER(config-voiceport)#timeouts interdigit 5
ROUTER(config-voiceport)#voice-port 4
ROUTER(config-voiceport)#timeouts interdigit 5
```

Enter account numbers

```
ROUTER(config-voiceport)#dial-peer voice 1 pots
ROUTER(config-dial-peer)#destination-pattern Enter the first Omni Child
account and PIN here
ROUTER(config-dial-peer)#port 1
ROUTER(config-dial-peer)#dial-peer voice 2 pots
ROUTER(config-dial-peer)#destination-pattern Enter the second Omni Child
account and PIN here
ROUTER(config-dial-peer)#port 2
ROUTER(config-dial-peer)#dial-peer voice 3 pots
ROUTER(config-dial-peer)#destination-pattern Enter the third Omni Child
account and PIN here
ROUTER(config-dial-peer)#port 3
ROUTER(config-dial-peer)#dial-peer voice 4 pots
ROUTER(config-dial-peer)#destination-pattern Enter the fourth Omni Child
account and PIN here
ROUTER(config-dial-peer)#port 4
```

Configure VoIP dial peer

```
ROUTER(config-dial-peer)#dial-peer voice 201 voip
ROUTER(config-dial-peer)#destination-pattern .T
ROUTER(config-dial-peer)#session protocol sipv2
ROUTER(config-dial-peer)#session target dns:sip827.phoneserve.com
ROUTER(config-dial-peer)#voice-class codec 1
ROUTER(config-dial-peer)#dtmf-relay rtp-nte
ROUTER(config-dial-peer)#no vad
ROUTER(config-dial-peer)#exit
ROUTER(config)#exit
```

Save the configuration

```
ROUTER# write mem
Building configuration...
[OK]
ROUTER#
```

The configuration is now complete!

8.0 Contact & Feedback

We hope that you have found the contents of this guide both useful and informative. However, if you feel any additional information could be added, or the guide could be improved in any way, please e-mail suggestions to info@phoneserve.com

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