

Quick Start Guide Addpac 200 D – 2 FXO-port Gateway

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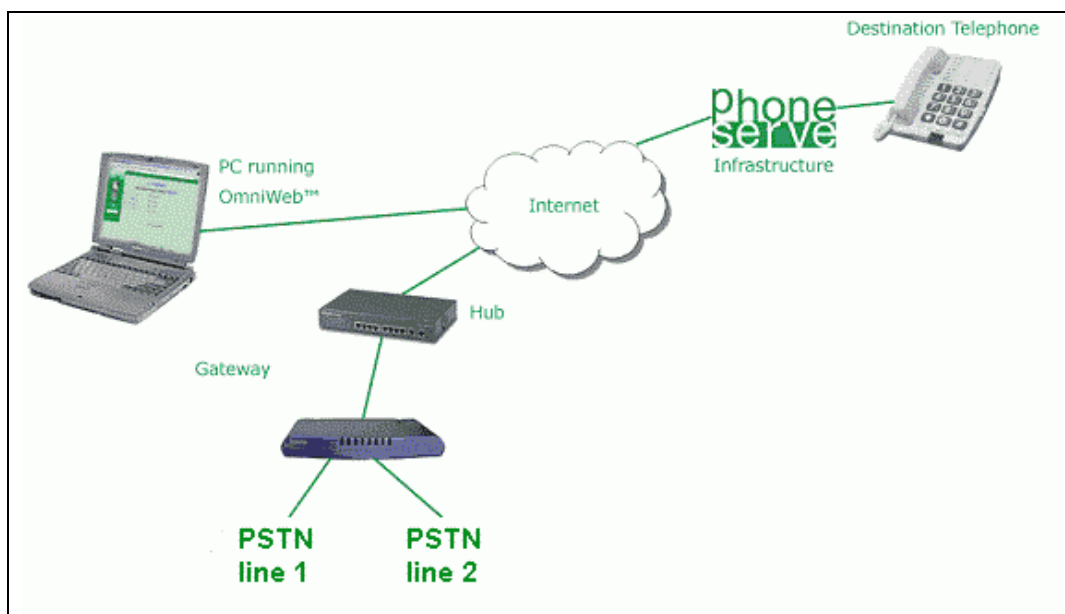
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Before You Begin...

Verify that you have the following:

- **Addpac AP200D and Power Supply.**
- **A network (LAN/Ethernet) cable** to connect the AP200D to the Internet. (This cable is usually provided as part of the AP200D package.)
- **IP Network details** (if you are not using DHCP - IP address, subnet mask, IP gateway address, DNS server details)
- **PC** and a serial port and the supplied console cable.
- At least one **analogue phone with an RJ11 connector.**
- **Phoneserve literature** including:
 - **Phoneserve Omni Quick Install Guide** (this document)
 - **Phoneserve Omni Account Details** (available from your Account Manager or Distributor)
 - **Phoneserve Omni user instructions** (available your Account Manager or Distributor)

Figure 1. Setting up the AP200D on an existing LAN



Cabling the AP200D

Connect the ETHERNET cable to LAN0 port on the gateway.

Connect up to 2 PSTN lines to the PHONES ports starting with FXO port 0.

Connect the power supply to the AP200D.

Using the supplied console cable, connect the to the 'console' port on the AP200D. Connect the other end to the serial port of a PC.

Figure 2. The back of the Addpac AP200D



3. Connecting to a PABX

If you wish to connect the AP200D 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/ax301/ax301.htm>

Configuring the AP200D software

a. How to start

The easiest and most reliable way to configure the AP200D is through the console interface. Please follow the configuration instructions below:

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

When you use the HyperTerminal® 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.



(**For example:** Enter AP200D in the name field and select your preferred icon. Next time you logon to your AP200D you can click directly on that saved icon to get to the AP200D console, without having to enter your telephone details and COM port details.)

You will be asked to enter your country of residence, local area telephone code and Which COM port to use. You need to select COM Port to which the console cable is connected and click ok.

Now connect using the following parameters:

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

Click on OK to open the console screen and press enter to bring up the

"login>" prompt.

The default login details are:

```
Username root
Password router (you will not see this entry!)
```

You should end up at the 'AP200D#' prompt.

b. Software version:

The AP200D should be running software revision 6.120 or 8.10 (see example below). To determine the software version running on the AP200D, enter the command: **show version** from the command line, once you are logged in. (Example: AP200D#**show version** and press enter)

The following information will be displayed (software version is highlighted):

```
VoiceFinder Gateway Series (AP200D)
Serial Number: AP200D-0052b2
32BIT RISC Processor With 16777216 Bytes System Memory
524288 Bytes System Flash Memory
2097152 Bytes 2nd System Flash Memory

1 RS232 Serial Console Interface
2 Ethernet/IEEE 802.3 Interface

AP200D System software Revision 8.10
Released at Mon Jun 16 10:45:00 2003
Program is 1521620 bytes, checksum is 0xc294a38
```



or

VoiceFinder Gateway Series (AP200D)
Serial Number: AP200D-0052b2
32BIT RISC Processor With 16777216 Bytes System Memory
524288 Bytes System Flash Memory
2097152 Bytes 2nd System Flash Memory

1 RS232 Serial Console Interface
2 Ethernet/IEEE 802.3 Interface

AP200D System software Revision 8.10

Released at Mon Jun 16 10:45:00 2003
Program is 1521620 bytes, checksum is 0xc294a38

For details on how to obtain these versions and upgrade the AP200D, please refer to the Addpac website or contact your Account Manager.

Configuring the AP200D to use Phoneserve OMNI

There are two ways to configure the AP200D, either using DHCP (allocates IP address, NetMask and IP gateway addresses automatically) or by entering all the details manually.

By default, a brand new AP200D is configured to use DHCP on a network. If your LAN has a DHCP device the AP200D should be allocated an IP address and gateway address for your network automatically.

If not you will have to configure the IP address and default gateway manually.

IMPORTANT: We recommend configuring the AP200D using the sample configuration procedure below. Do not configure the AP200D using web interface as it does not support all the SIP commands.

You can check if an IP address, subnet mask and IP gateway address have been allocated to the AP200D by typing in the following commands:

```
show interface ether0.0 (will display your IP address & subnet mask)
show route (will display the default gateway address)
```

Example: (please note that the IP details will be different on your network from the example below):

```
AP200D# show interface ether0.0
```

```
Interface : ether0.0
          IP Address : 10.10.160.76      Physical Interface :
Ethernet0
  Network : 10.10.160.0      Subnet Mask : 255.255.255.0
  Administrator Status : UP  Operation Status : UP
  Network Type : Ethernet   MTU : 1500
  Hardware Address : 00 02 a4 00 52 b2

Ethernet0 is UP, Line protocol is UP
QoS control is disabled
interface type is 10Base-T
link status is 10 Mbps (HALF-DUPLEX)
last 1 minute data rate : tx 0 bps, rx 624 bps
3878 packets input, 512042 bytes, 0 no buffers
Received 0 runts, 0 giants
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
8 packets output, 2380 bytes, 0 drops
0 output errors, 0 collision, 0 interface resets
0 underruns, 0 late collisions, 0 deferred
0 lost carrier, 0 no carrier
```

```
AP200D# show route
```

```
Codes: C - connected, S - static, R - RIP, O - OSPF
```

```
S 0.0.0.0/0 [5/0] via 10.10.60.254, ether0.0
  10.0.0.0/8 is subnetted
C 10.10.60.0 is directly connected, 10.10.60.76 ether0.0
C 127.0.0.0 is directly connected, 127.0.0.1 loopback0
```

(If not, you will need to configure the gateway manually)

Configuration USING DHCP

The AP200D is configured as a DHCP client on Ethernet port 0 by default so if the DHCP server is active then an IP address, subnet mask and IP gateway address should have been allocated.

There are four steps to configure the AP200D using DHCP:

1. **Enter account numbers:** These are the account numbers you received from your Account Manager. **Every port needs to be allocated an account number.** To do this enter the commands displayed in **bold** (please note that **the account numbers and PIN need to be entered as one long number**)
2. **Configure VoIP Dial Peer:** These details are required to establish the connection between your gateway and our infrastructure
3. **Disable HTT, TELNET and FTP Management:** By default the AP200D has a number of services enabled that allow remote access to the AP200D via Telnet, HTTP and FTP. This



could mean that your AP200D is accessible from the Internet and is therefore a security risk. We recommend to disable these services for your security.

4. **Save the configuration:** The final step is to save the information.

To start the configuration, go to the console login screen prompt (AP200#) and type in the information listed in **bold** below:

```
AP200# configure
Enter configuration commands, one per line. End with CNTL/Z
AP200(config)# dial-peer voice 1 pots
AP200(config-dialpeer-pots-1)# destination-pattern <Replace with your first child account and PIN>
AP200(config-dialpeer-pots-1)# port 0/0
AP200(config-dialpeer-pots-1)# exit
AP200(config)# dial-peer voice 2 pots
AP200(config-dialpeer-pots-2)# destination-pattern <Replace with your second child account and PIN>
AP200(config-dialpeer-pots-2)# port 0/1
AP200(config-dialpeer-pots-2)# exit
AP200(config)# dial-peer voice 201 voip
AP200(config-dialpeer-voip-201)# destination-pattern .T
AP200(config-dialpeer-voip-201)# session target ap.phoneserve.com
AP200(config-dialpeer-voip-201)# session protocol sip
AP200(config-dialpeer-voip-201)# codec g729
AP200(config-dialpeer-voip-201)# dtmf-relay h245-alphanumeric
AP200(config-dialpeer-voip-201)# no vad
AP200(config-dialpeer-voip-201)# fax protocol t38 redundancy 0
AP200(config-dialpeer-voip-201)# exit
AP200(config)# voice-port 0/0
AP200(config-voice-port-0/0)# ring number 0
AP200(config-voice-port-0/0)# ring detect-timeout 20
AP200(config-voice-port-0/0)# forced-clear-down -48 90
AP200(config-voice-port-0/0)# exit
AP200(config)# voice-port 0/1
AP200(config-voice-port-0/1)# ring number 0
AP200(config-voice-port-0/1)# ring detect-timeout 20
AP200(config-voice-port-0/1)# forced-clear-down -48 90
AP200(config-voice-port-0/1)# exit
AP200(config)# exit
AP200# write

Do you want to WRITE configuration ? [y|n] y
Writing configuration....done
AP200#
```

The configuration is now complete and you can make calls!

Configuration NOT USING DHCP

To configure your AP200D gateway manually you need to have a dedicated static IP address, you need to know your subnet mask and the IP address of your default IP gateway (the gateway which establishes the internet connection). You can find this information by going to Start, Run and type in **command** to open a DOS window. Now type in **ipconfig** and press enter. Once you have these details please follow the steps below:

You need to complete several steps to configure the AP200D manually:

1. **Enter IP address and subnet mask details:** Enter the commands (details written in **bold**) replacing '**X.X.X.X**' with an **unused IP address on your network** and replacing the **Y.Y.Y.Y** with the **subnet mask used on your network (for example: IP address 123.456.7.89 255.255.255.0)**
2. **Enter IP gateway details:** To add a default gateway replace the **A.A.A.A** with the IP address of the default gateway on your network.
3. **Enter account numbers:** To add the account numbers enter the commands displayed in **bold (please note that the account numbers and PIN need to be entered as one long number)**
4. **Configure VoIP Dial Peer:** These details are required to establish the connection between your gateway and our infrastructure
5. **Configure DNS address:** The next step is to configure the DNS address. Replace **B.B.B.B** with the IP address of your **Domain Name Server**.
6. **Disable HTT, TELNET and FTP Management:** By default the AP200D has a number of services enabled that allow remote access to the AP200D via Telnet, HTTP and FTP. This could mean that your AP200D is accessible from the Internet and is therefore a security risk. To disable these services issue the following commands.
7. **Save the configuration:** The final step is to save the configuration.

To start the configuration, go to the console login screen and type in the information listed in **bold** below:



```
AP200# configure
AP200(config)# interface ether 0.0
AP200(config-ether0.0)# ip address X.X.X.X Y.Y.Y.Y
AP200(config-ether0.0)# exit
AP200(config)# route 0.0.0.0 0.0.0.0 A.A.A.A
AP200(config)# dial-peer voice 1 pots
AP200(config-dialpeer-pots-1)# destination-pattern Enter your first
child account and PIN here
AP200(config-dialpeer-pots-1)# port 0/0
AP200(config-dialpeer-pots-1)# exit
AP200(config)# dial-peer voice 2 pots
AP200(config-dialpeer-pots-2)# destination-pattern Enter your second
child account and PIN here
AP200(config-dialpeer-pots-2)# port 0/1
AP200(config-dialpeer-pots-1)# exit
AP200(config)# dial-peer voice 201 voip
AP200(config-dialpeer-voip-201)# destination-pattern .T
AP200(config-dialpeer-voip-201)# session target ap.phoneserve.com
AP200(config-dialpeer-voip-201)# session protocol sip
AP200(config-dialpeer-voip-201)# codec g729
AP200(config-dialpeer-voip-201)# dtmf-relay h245-alphanumeric
AP200(config-dialpeer-voip-201)# no vad
AP200(config-dialpeer-voip-201)# fax protocol t38 redundancy 0
AP200(config-dialpeer-voip-201)# exit
AP200(config)# dnshost nameserver B.B.B.B
AP200(config)# voice-port 0/0
AP200(config-voice-port-0/0)# ring number 0
AP200(config-voice-port-0/0)# ring detect-timeout 20
AP200(config-voice-port-0/0)# forced-clear-down -48 90
AP200(config-voice-port-0/0)# exit
AP200(config)# voice-port 0/1
AP200(config-voice-port-0/1)# ring number 0
AP200(config-voice-port-0/1)# ring detect-timeout 20
AP200(config-voice-port-0/1)# forced-clear-down -48 90
AP200(config-voice-port-0/1)# exit
AP200(config)# exit
AP200# write
Do you want to WRITE configuration ? [y|n] y
Writing configuration....done
AP200#
```

The configuration is now complete and you can make calls!

Protecting your Addpac200d from unwanted calls

When you connect your Addpac200d to your PSTN line you might want to configure it with a code to restrict its use from outside your premises. Addpac doesn't have an option to authenticate users calling your PSTN number. However, there is an option to configure your Addpac200d with translation rules, which will force anyone calling your PSTN number to enter the translation code in order to make a phone call through Phoneserve. Please find enclosed below the parameters to add to your configuration:

```
AP200# configure
AP200(config)# dial-peer voice 201 voip
AP200(config-dialpeer-voip-201)# destination-pattern 123T
AP200(config-dialpeer-voip-201)# translate-outgoing called-number 1
AP200(config-dialpeer-voip-201)# exit
AP200(config)# translation-rule 1
AP200(config-translation-rule#1)# rule 0 123T %04%99
AP200(config-translation-rule#1)# exit
AP200(config)# exit
AP200# write
Do you want to WRITE configuration ? [y|n] y
Writing configuration....done
AP200#
```

Please note that in this case the rule entered is 123, therefore to dial 00442075177100 you will need to dial 12300442075177100, otherwise the call will not go through. **123** can be changed for any other 3 digits, but make sure you don't enter more or less than 3 digits, because then, the parameter for the translation rule would be different.