

SmartNode 4900 **IpChannel Bank**

Quick Start Guide



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Important Information

To use virtual private network (VPN) and/or AES/DES/3DES encryption capabilities with the SmartNode 4900, you may need to purchase additional licenses, hardware, software, network connection, and/or service. Contact sales@patton.com or +1 (301) 975-1000 for assistance.

Introduction

This Quick Start Guide leads you through the basic steps to set up a new SmartNode and to download a configuration. Please note that this guide does not replace the detailed Software Configuration Guide and the Getting Started Guide on the CD-ROM and available online at www.patton.com/voip.

SmartNodes can be used for a wide variety of IP and voice over IP applications. To support and ease the configuration of the SmartNodes configuration templates for the most important applications are available online at <http://www.patton.com/voip/appnotes.shtml>.

Setting up a new SmartNode consists of the following steps:

1. Attach the power cable retainer clips to the unit
2. Connect a PC to the SmartNode, log in and configure your LAN IP address (see [page 4](#) for details)
3. Connect the SmartNode to the LAN (see [page 6](#))
4. Download a configuration example, adapt it to your network, and load it onto the SmartNode (see [page 7](#))



For FXO (/JO) models: To maintain CE/EMC compliance, attach the included snap-on ferrite clamp (Patton P/N 0818S-02) to the 64/50 pin telco cable (not included but available upon request) about four inches away from the FXO box telco port connector.

Attaching the cable retainer clips

To secure the power cord, it is necessary to attach the metal retainer clips (if applicable to your model). Squeeze the clip and insert into the holes in the screws on either side of the power connector on your unit. The clip will pop into place.

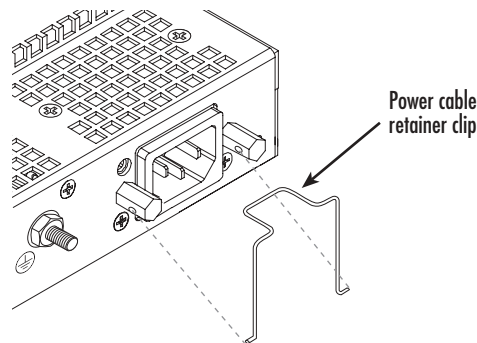


Figure 1. Attaching the cable retainer clips

Note Refer to the *Getting Started Guide* on the CD-ROM or on the Patton website for detailed instructions about grounding and connecting power to your unit.

Connecting a PC, logging in, and configuring the LAN IP address

Connecting power and configuring the default IP address

Connect the SmartNode to the mains power supply using the included power supply and cable. When the *RUN* LED stops blinking and remains lit, the SmartNode is ready.

The factory default IP settings are listed in [table 1](#). If these addresses do not work with your network they must be changed. Contact your network administrator if you are not sure which IP address to use in your installation.

Table 1. Factory default IP address and network mask configuration

Item	IP Address(es)	Network Mask
WAN interface Ethernet 0 (ETH 0/0)	DHCP	DHCP
LAN interface Ethernet 1 (ETH 0/1)	192.168.1.1	255.255.255.0
DHCP server address range	192.168.1.10-192.168.1.19	255.255.255.0

Note The DHCP server is running on the ETH 0/1 of the SN4900 Series models. All Ethernet ports are pre-configured and active.

Connecting to a PC and logging in

1. To access the SmartNode configuration, connect a PC equipped with an RS-232 console port to the *Console* port on the front of the SmartNode. Use the included black Ethernet cable and RJ45 to DB-9 adapter for this purpose (Model 16F-561).

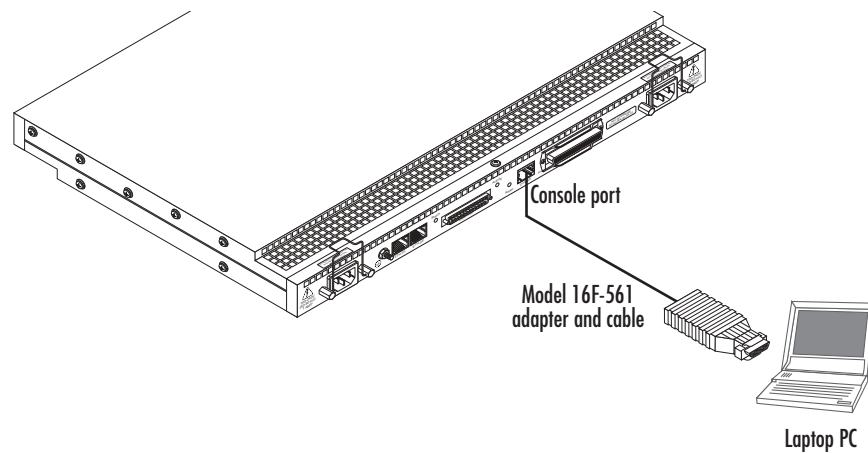


Figure 2. Connecting to the PC

2. Open a Terminal connection to the SmartNode. Use the Terminal program included with most PC operating systems (e.g. Hyper Terminal on Windows). The CD-ROM also includes some recommended terminal programs.

3. Type *administrator* as the login prompt and press the **Enter** key after the password prompt (do not type anything for the password). A prompt will appear consisting of the IP address and > character.

```
login:administrator
password:
172.16.40.1>
```

4. Following log in, the SmartNode is in operator execution mode (indicated by > character in the command line prompt). With the commands **enable** and **configure**, you enter the configuration mode.

```
172.16.40.1>enable
172.16.40.1#configure
172.16.40.1(cfg)#
```

Changing the IP address

1. Select the context IP mode to configure an IP interface.

```
172.16.40.1(cfg)#context ip router
172.16.40.1(ctx-ip)[router]#
```

2. Set the IP address and network mask for the each IP interface (*eth0*, for example).

Note For the examples in this guide, a private network (*172.16.1*) IP address is used.

```
172.16.40.1(ctx-ip)[router]#interface eth0
172.16.40.1(if-ip)[eth0]#ipaddress 172.16.1.10 255.255.255.0
2002-10-29T00:09:40 : LOGINFO      : Link down on interface eth0.
2002-10-29T00:09:40 : LOGINFO      : Link up on interface eth0.
172.16.1.10(if-ip)[eth0]#
```

3. Make this modified configuration your new start-up configuration. On the next start-up the system will initialize itself using the modified configuration.

```
172.16.1.10 (if-ip)[eth0]#copy running-config startup-config
172.16.1.10 (if-ip)[eth0]#
```

Go to section “[Connecting the SmartNode to the LAN](#)” on page 6 to connect the SmartNode to your network.

Connecting the SmartNode to the LAN

The 4900 Ethernet ports are auto MDX, therefore a straight-through wired cable can be used for host and switch connections (see [figure 3](#)).

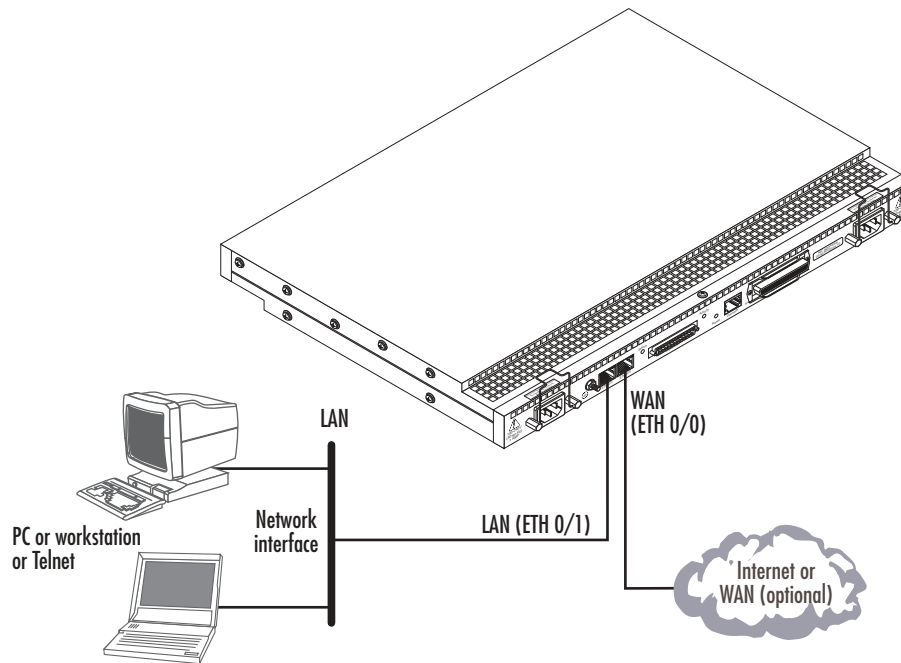


Figure 3. Connecting the SmartNode to the network

You can check the connection with the ping command to another host on the local LAN.

```
172.16.1.99(if-ip)[eth0]#ping <IP Address of the host>
```

Respectively from the host: *ping 172.16.1.99*

Note To ping outside your local LAN, you will need to configure the default gateway.

You may now start to configure the SmartNode from scratch using the CLI commands, but we recommend that you start your configuration from a template. See “[Downloading a configuration example, adapting it to your network, and loading it onto the SmartNode](#)” on page 7 for further details.

For a detailed description of the CLI refer to the *SmartWare Software Configuration Guide* (SCG) available on the CD-ROM and online at: www.patton.com/voip.

Downloading a configuration example, adapting it to your network, and loading it onto the SmartNode

Patton provides a collection of configuration templates on the CD-ROM that came with the SmartNode device—and also on the support page at www.patton.com/voip/appnotes.shtml—one of which may be similar enough to your application that you can use it to speed up configuring the SmartNode. Simply download the configuration note that matches your application to your PC. Adapt the configuration as described in the configuration note to your network (remember to modify the IP address) and copy the modified configuration to a TFTP server. The SmartNode can now load its configuration from this server.

Note Patton regularly adds new configuration templates to the collection at www.patton.com/voip/appnotes.shtml, so if you do not see your application on the CD-ROM, it may have been added to the website.

Note If your application is unique and not covered by any of Patton's configuration templates, you can manually configure the SmartNode instead of loading a configuration file template. In that case, refer to the *SmartNode Series SmartWare Software Configuration Guide* for information on configuring the SmartNode device.

In this example we assume the TFTP server on the host with the IP address 172.16.1.11 and the configuration named *SN.cfg* in the root directory of the TFTP server.

```
172.16.1.99(if-ip)[eth0]#copy tftp://172.16.1.11/SN.cfg startup-config
Download...100%
172.16.1.99(if-ip)[eth0]#
```

After the SmartNode has been rebooted the new startup configuration will be activated.



When you issue the **reload** command, the SmartNode will ask if you want to copy the running configuration to the startup configuration. Since you just downloaded a configuration file to the startup configuration you must answer this question with **NO**. Otherwise, the downloaded configuration will be overwritten and lost!

```
172.16.1.99(if-ip)[eth0]#reload
Running configuration has been changed.
Do you want to copy the 'running-config' to the 'startup-config'?
Press 'yes' to store, 'no' to drop changes : no
Press 'yes' to restart, 'no' to cancel : yes
The system is going down
```

Additional information

For detailed information about configuring and operating guidance, set up procedures, and troubleshooting, refer to the *SmartNode Series SmartWare Software Configuration Guide* and the *SmartNode Getting Started Guide* on the enclosed Patton VoIP CD-ROM or at <http://www.patton.com/voip/>. On the CD-ROM you will also find numerous freeware and shareware tools, including TFTP servers, Telnet clients, etc..

Certifications and approvals

EC Declaration of Conformity

(see section “EG-Konformitätserklärung” for German version)

Product Description: SmartNode 4900

The products described above in the form as delivered are in conformity with the provisions of the following European Directive:

R&TTE Directive 1999/5/EC

Guidelines of the European Parliament and the Committee for the Harmonisation of the Legal Regulations of the Member States concerning radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.



The safety advices in the documentation accompanying the products shall be obeyed. The conformity to the above directive is indicated by the CE sign on the device.

The signed Declaration of Conformity can be downloaded from www.patton.com/certifications/

EG-Konformitätserklärung

(see section “EC Declaration of Conformity” for English version)

Produktbezeichnung: SmartNode 4900

Die bezeichneten Produkte stimmen in der von uns in Verkehr gebrachten Ausführung mit den Vorschriften folgender Richtlinie überein:

R&TTE 1999/5/EG

Richtlinie des europäischen Parlaments und des Rates zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Funkanlagen und Telekommunikations-Endeinrichtungen und die gegenseitige Anerkennung ihrer Konformität.



Die Sicherheitshinweise in der mitgelieferten Produktdokumentation sind zu beachten. Die Konformität mit der oben erwähnten Richtlinie wird durch das CE-Zeichen auf dem Gerät bestätigt.

Die unterzeichnete Konformitätserklärung kann heruntergeladen werden von: www.patton.com/certifications/