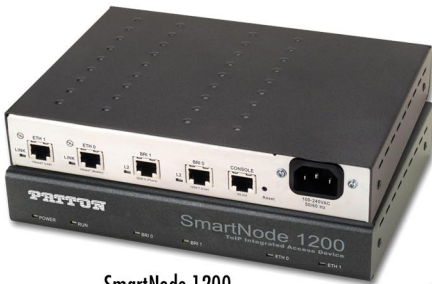# PATTON Electronics Co.

SmartNode™ Model 1200, 1400 & 4552
VoIP Gateway Routers

Quick Start Guide

SmartNode 1200

SmartNode 1400

SmartNode 4552

CE

WARNING

- **The SmartNode contains no user serviceable parts. The equipment shall be returned to Patton Electronics for repairs, or repaired by qualified service personnel.**

- **Mains Voltage: Do not open the case when the power cord is connected. For systems without a power switch, line voltages are present within the power supply when the power cord is connected. The mains outlet that is utilized to power the SmartNode router shall be within 10 feet (3 meters) of the device, shall be easily accessible, and protected by a circuit breaker**

- **The smartNode is not shipped with power cables. For AC powered units, ensure that the power cable used meets all applicable standards for the country in which it is to be installed, and that it is connected to a wall outlet which has earth ground.**

- **Hazardous network voltages are present in WAN ports regardless of whether power to the SmartNode is ON or OFF. To avoid electric shock, use caution when near WAN ports. when detaching the cables, detach the end away from the SmartNode first.**

- **Do not work on the system or connect or disconnect cables during periods of lightning activity.**

1.0 Power up the SmartNode

CAUTION

The interconnecting cables shall be acceptable for external use and shall be rated for the proper application with respect to voltage, current, anticipated temperature, flammability, and mechanical serviceability.

1. Connect the SmartNode to a power source using the included power supply and cable.
2. When the *Power* LED stops blinking and remains lit, the SmartNode is ready to configure.

2.0 Set your PC to DHCP

CAUTION

The interconnecting cables shall be acceptable for external use and shall be rated for the proper application with respect to voltage, current, anticipated temperature, flammability, and mechanical serviceability.

This guide will allow you to quickly access the configuration interface of a SmartNode and give an overview of the different elements you can or need to configure. For detailed information on all configuration parameters refer to the SmartWare software configuration guide.

The SmartNode has a built in DHCP Server which allows an automatic IP connection with a connected PC. To prepare the connection you need to configure the PC to use DHCP. The following paragraphs show how to do this on Windows. For other operating systems refer to the operating instructions of the PC.

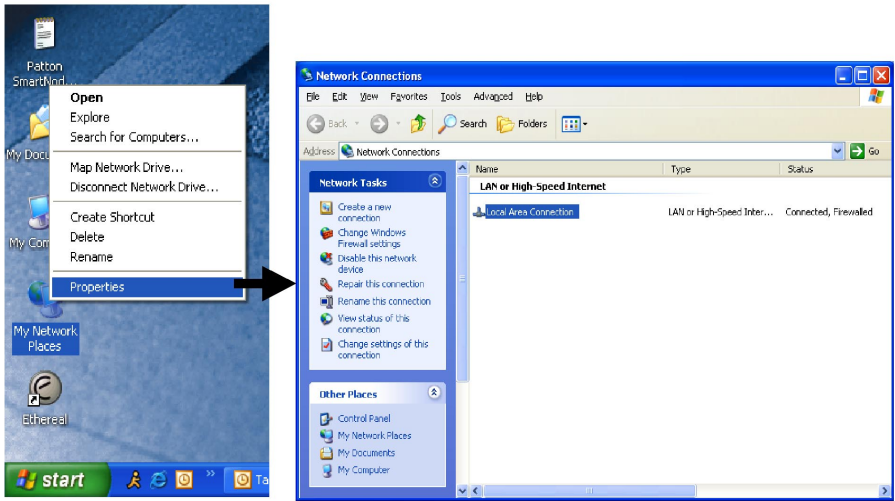1. Right-click on *My Network Places* and select *Properties* in the context menu (see **figure 1**).

Figure 1. Displaying the Network Connections window
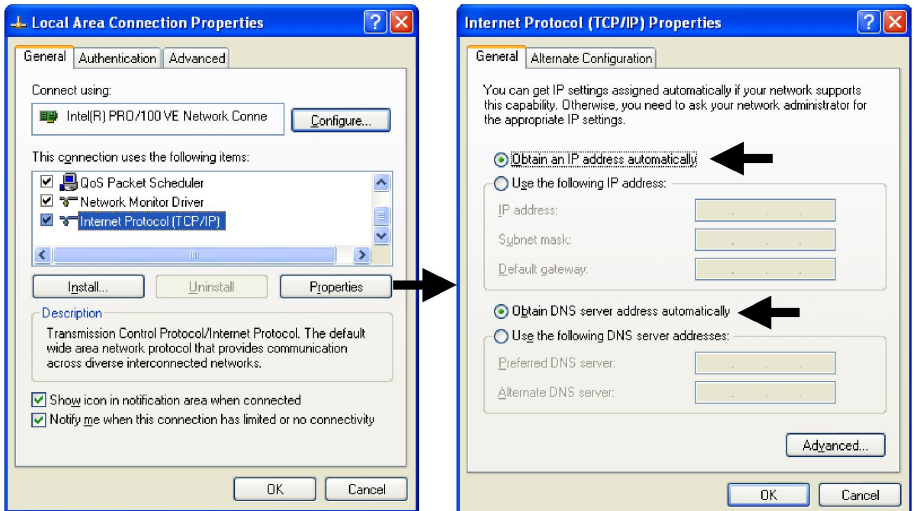

Figure 2. Displaying the Internet Properties (TCP/IP) Properties window

2. Double-click on *Local Area Connection* and click on **Properties** to open the *Internet Protocol (TCP/IP) Properties* window (see **figure 2**).

3. Select *Obtain an IP address automatically* and *Obtain DNS server address automatically* options.

4. Click **OK** to save changes and close the properties windows.

3.0   Connect the PC to the SmartNode LAN Port

Now use the included Ethernet cable to connect the configured PC to the SmartNode. The factory default configuration of the SmartNode defines Ethernet port 0/1 as the LAN port.

Note Most SmartNode Ethernet ports are Auto-MDIX which means that you can use a standard straight-wired Ethernet cable to connect to the PC or a hub/switch.
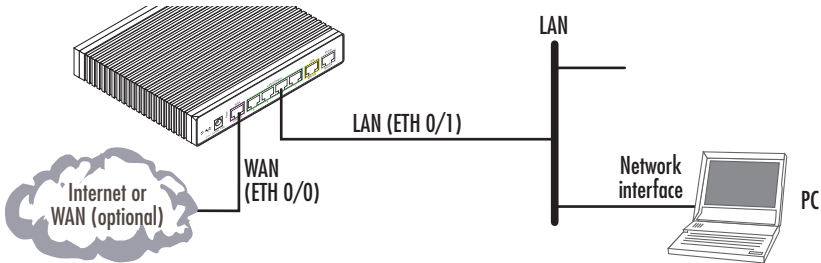

Figure 3. Connecting the SmartNode to the network

Model	Connect to port
SN1200/1400	ETH 0/1, use crossover cable or hub
SN4552	ETH 0/1 any one of the 4 ports, Auto-MDIX

Note As an alternative, you can connect to the console port (available on most models). Refer to the appropriate "Getting Started Guide" for detailed instructions on how to access the command line interface (CLI) through the console port.

3.1 Open the Configuration Interface

1. Once IP connectivity is established, use a web browser to get access to the SmartNode configuration interface. Enter "smart.node" in the address bar to get started (see **figure 4**).
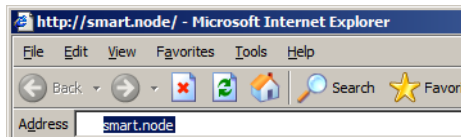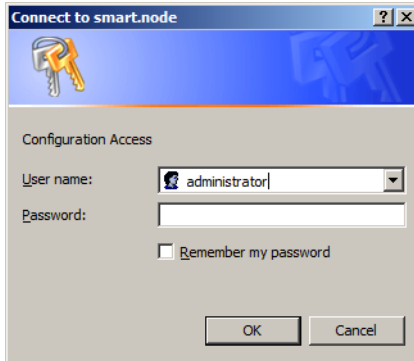

Figure 4. Using a web browser to access the SmartNode configuration interface

SmartWare GUI Quick Start Guide

2. The subsequent pop-up window asks you for the login credentials (see **figure 5**). The factory default login credentials are:

    User Name: ***administrator***

    Password: There is no password, leave this field empty

Figure 5. Login window

3. Click **OK**.

4.0 Get Started

After successful login you get to the SmartNode home page, and you can configure your device. You will be presented the following home page, which contains buttons to store the current configuration state, reload the device and restore to factory defaults. The home page also shows some system information. You can always go back to the home page by clicking *Home* in the navigation bar.

The GUI consists of the following main elements (see **figure 6**):

- The "Navigation Bar" on the left edge presents you with a menu listing giving access to the various configuration and status pages of the SmartNode.

- At the top of the page you see the "Current System Path" which displays the location and element currently presented in the main area.

- The rest of the page displays the configuration and status information for the different features of the SmartNode.

Configuration and status tabs
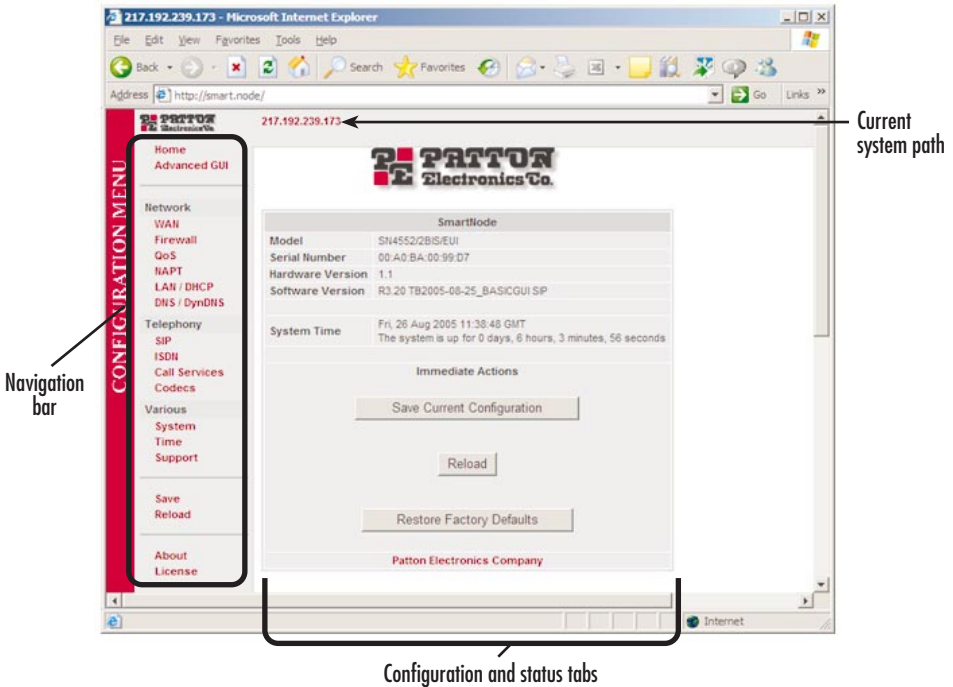
Figure 6. Main GUI elements

During the whole configuration process, all your changes are only applied—that is, saved in volatile memory (RAM). To store the settings in non-volatile memory (i.e. make them survive power failure or manual reload), return to the home page and press the **Save Current Configuration** button.

IMPORTANT

SmartWare GUI Quick Start Guide

5.0 Access the Internet

Connect an Ethernet cable from the WAN port on the SmartNode to the upstream WAN Internet connection. Begin the configuration for Internet access with the WAN page.
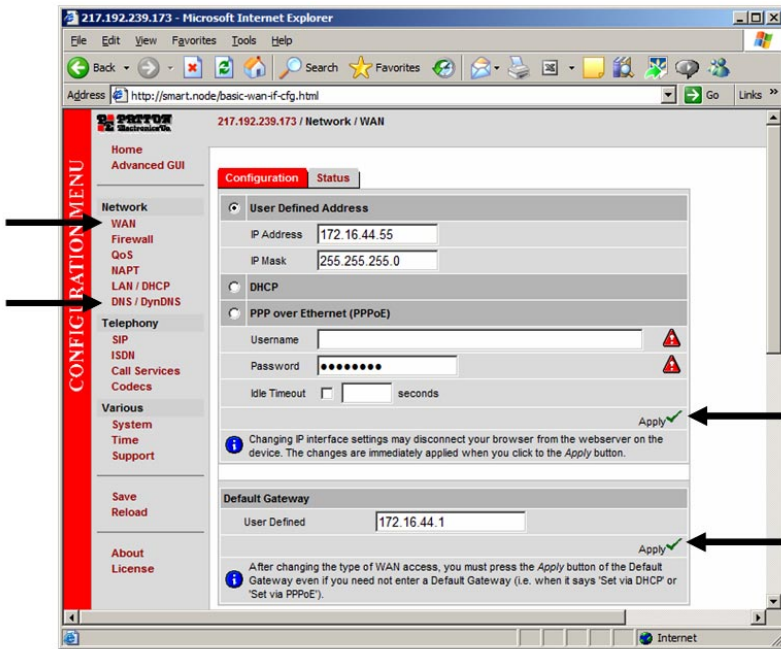

Figure 7. WAN page

5.1 Connecting a PC and logging in

Here are some special hints you may use when configuring your SmartNode:

Apply✓	For each box containing an "Apply" button, fill in the required fields and press "apply" once. The settings are applied immediately after the button is pressed. If there are several boxes with an "Apply" button on one page, fill in the information per box and press the button for each box separately. This saves the new configuration parameters in volatile memory (RAM) only.
⚠	The "alert" symbol shows you that somewhere a user input is missing for correct functionality. In the case of the present WAN page, you can ignore them, because the respective title bullet ("PPP over Ethernet") is not selected.
ⓘ	The "info" symbol denotes hints to ease configuration or to avoid pitfalls. Read them whenever you encounter them!

There are three different configuration options for the WAN Internet connection (see **figure 7**):

• **DHCP (client—factory default).** The SmartNode's WAN port has a DHCP client enabled that uses an established Internet connection to get the Internet connectivity parameters (IP address, default gateway) automatically

from a DHCP server. Use this option when connecting the SmartNode to a DSL router, a cable modem, or to a company LAN (with a DHCP server). This is the factory default configuration so no configuration is required, only the LAN and WAN Ethernet connections should be made to access the Internet immediately.

- **PPPoE.** The SmartNode establishes the connection with the Internet using PPPoE. This is most commonly used when the SmartNode is connected to a DSL *bridge*, or a DSL router that is configured in *bridge* mode (most routers are capable of this).

  Enter the DSL credentials (username and password) on the SmartNode and click on the **Apply** button.

- **User Defined Address.** The SmartNode uses an existing internet connection which does not provide an upstream DHCP server. In this case, you need to set the IP address, subnet mask, default gateway and DNS servers manually.

  - **IP Address**—The IP address of the WAN Ethernet port.

  - **IP Mask —**The mask for the WAN port's IP address.

  Click on the *Apply* icon to apply the new configuration.

  - **Default Gateway**—This is the IP address of the upstream router. Click on the *Apply* icon to apply the new configuration.

  - **DNS/DynDNS**—In the Configuration Menu, go to DNS/DynDNS. Enter the IP addresses of the DNS servers and *Apply* the new settings.

Figure 7 on page 7 shows the third case—**User Defined Address** configuration of connectivity parameters. In this example the SmartNode's WAN IP address is 172.16.44.55 with an IP Mask of 255.255.255.0. The Default Gateway is 172.16.44.1.

> **Note** Be sure to return to the *Home* configuration page to save the new configuration in non-volatile memory.

Advanced GUI   The "advanced GUI" leads you to the full universe of SmartNode configuration parameters. There are many more things that can be configured than you are presented on the "basic GUI" pages you see when the system starts. Be aware that configuration is quite a bit more complicated and requires some know-how about VoIP and the SmartNode configuration concepts. We recommend familiarizing yourself with the *SmartWare Software Configuration Guide* before switching to the advanced mode.

6.0 Additional Information

Refer to the *SmartNode Series SmartWare Software Configuration Guide* and the *SmartNode Getting Started Guide* located on the CD-ROM shipped with your SmartNode device and available online at www.patton.com/manuals. For detailed information about:

- Installing, configuring, operating, and troubleshooting.

- Warranty, trademark & compliance

The CD-ROM also includes many freeware and shareware tools, including TFTP servers, and Telnet clients.

Besides the comprehensive manuals included on the CD-ROM a host of additional information is available on-line at **www.patton.com/voip**. Here you will find:

- **Configuration notes**—This library contains example command sets for configuring and activating such SmartWare services as DHCP, QoS, VPNs, Frame-Relay, and many others. Patton offers these examples to help you implement selected features and functions from within SmartWare's rich set of software services.

- **Application notes**—Application Notes are product specific complete configuration descriptions and configuration files for various SmartNode applications. Use these configurations as templates for your installation.

- **Frequently asked questions (FAQs)**—Provide answers to common questions on SmartNode and VoIP technology. Such as, how much bandwidth for a VoIP call, where to get a license key etc.

- **Declaration of Conformance**—English and German same as Document Number: 13216U7-001 Rev. B

- **Legal notice**—Same as Document Number: 13216U7-001 Rev. B

A.0 Customer and Technical Support

If you contact Patton support, you should have some system information ready to help us better help you. This information allows us to quickly identify what product you are using and how it is configured. Therefore, we integrated a "system report" page that collects all relevant information and presents it to you on one web page. Click on "Support" to access this page — the page also gives you instructions on where to send the report.
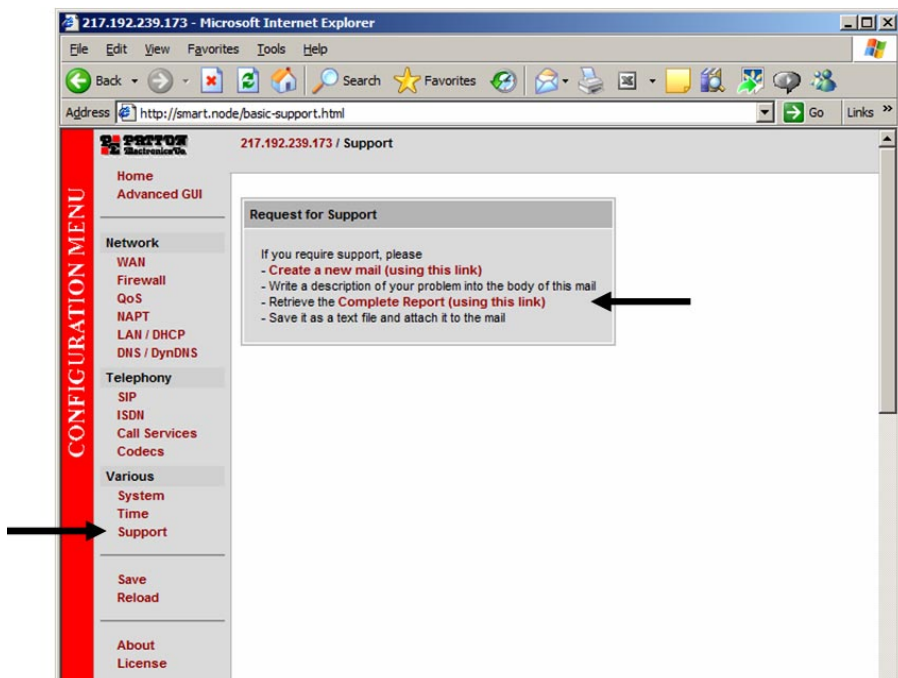
Figure 8. Request for Support page

Toll-Free VoIP support: call sip:support@patton.com with a VoIP SIP client

Online support: www.patton.com

E-mail support: support@patton.com — answered within 1 business day

Telephone support:

- Standard: +1 (301) 975-1007 (USA), Monday–Friday: 8:00 am to 5:00 pm EST (1300 to 2200 UTC/GMT)

- Alternate: +41 (0)31 985 25 55 (Switzerland), Monday–Friday: 8:00 am to 5:00 pm CET (0900 to 1800 UTC/GMT)

Fax: +1 (253) 663-5693 (USA) or +41 (0)31 985 25 26 (Switzerland)

A.0 Appendix—Factory default IP addresses

Factory default IP addresses and netmask configuration.

	IP Address	Network mask
WAN interface Ethernet 0 (0/0)	DHCP Client	n/a
LAN interface Ethernet 1 (0/1)	192.168.1.1	255.255.255.0
DHCP server address range (LAN)	192.168.1.10-192.168.1.19	255.255.255.0

B.0 Compliance Information

B.1 Compliance

EMC Compliance:

- FCC Part 15, Class A

- EN55022, Class A

- EN55024

Safety Compliance:

- IEC 60950-1

- EN60950-1

- AS/NZS 60950-1 (SmartNode 4552 only)

PSTN Regulatory Compliance:

- TBR-3

B.2 Radio and TV interference

The SmartNode router generates and uses radio frequency energy, and if not installed and used properly—that is, in strict accordance with the manufacturer's instructions—may cause interference to radio and television reception. The SmartNode router have been tested and found to comply with the limits for a Class B computing device in accordance with specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection from such interference in a commercial installation. However, there is no guarantee that interference will not occur in a particular installation. If the SmartNode router does cause interference to radio or television reception, which can be determined by disconnecting the unit, the user is encouraged to try to correct the interference by one or more of the following measures: moving the computing equipment away from the receiver, re-orienting the receiving antenna and/or plugging the receiving equipment into a different AC outlet (such that the computing equipment and receiver are on different branches).

B.3 EC Declaration of Conformity

(See section **B.5 "EG-Konformitätserklärung"** for German version.)

Product Description: SmartNode 1200, 1400, and 4552

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 Harmonization of the Legal Regulations of the Member States concerning radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

$C\mspace E$ The safety advice 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/**.

B.4 Approval

The SmartNode is approved for connection to the public ISDN telecommunication network. Anybody may connect the SmartNode to a BRI/S0- or PRI/S2m-ISDN interface and put it into operation.

B.5 EG-Konformitätserklärung

(See section **B.3 "EC Declaration of Conformity"** for English version)

Produktbezeichnung: SmartNode 1200, 1400, und 4552

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.

$C\mspace E$ 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/.

B.6 Zulassung

Der SmartNode ist für die Anschaltung an das öffentliche ISDN Telekommunikationsnetz zugelassen. Er darf durch jedermann an eine BRI/S0- oder PRI/S2m-Schnittstelle angeschlossen und in Betrieb genommen werden.

Copyright statement

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The information in this document is subject to change without notice. Patton Electronics assumes no liability for errors that may appear in this document.

Trademarks statement

The term *SmartNode* is a trademark of Patton Electronics Company. All other trademarks presented in this document are the property of their respective owners.

Warranty, Trademark, & Compliance Information

For warranty, trademark and compliance information, refer to the *SmartNode Getting Started Guide* located on the CD-ROM shipped with your SmartNode device or available online at www.patton.com.

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