

# SmartNode<sup>™</sup> 10100 Series **TDM+VoIP Smart Media Gateway**

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## Quick Start Guide



This is a Class A device and is not intended for use in a residential environment.



WARNING

- Do not open the device when the power cord is connected. For systems without a power switch and without an external power adapter, line voltages are present within the device when the power cord is connected.
- For devices with an external power adapter, the power adapter shall be a listed *Limited Power Source*. The mains outlet that is utilized to power the device shall be within 10 feet (3 meters) of the device, shall be easily accessible, and protected by a circuit breaker in compliance with local regulatory requirements.
- For AC powered devices, ensure that the power cable used meets all applicable standards for the country in which it is to be installed.
- For AC powered devices which have 3 conductor power plugs (L1, L2 & GND or Hot, Neutral & Safety/Protective Ground), the wall outlet (or socket) must have an earth ground.
- For DC powered devices, ensure that the interconnecting cables are rated for proper voltage, current, anticipated temperature, flammability, and mechanical serviceability.
- WAN, LAN & PSTN ports (connections) may have hazardous voltages present regardless of whether the device is powered ON or OFF. PSTN relates to interfaces such as telephone lines, FXS, FXO, DSL, xDSL, T1, E1, ISDN, Voice, etc. These are known as “hazardous network voltages” and to avoid electric shock use caution when working near these ports. When disconnecting cables for these ports, detach the far end connection first.
- Do not work on the device or connect or disconnect cables during periods of lightning activity.



WARNING

This device contains no user serviceable parts. This device can only be repaired by qualified service personnel.



In accordance with the requirements of council directive 2002/96/EC on Waste of Electrical and Electronic Equipment (WEEE), ensure that at end-of-life you separate this product from other waste and scrap and deliver to the WEEE collection system in your country for recycling.



**Electrostatic Discharge (ESD) can damage equipment and impair electrical circuitry. It occurs when electronic printed circuit cards are improperly handled and can result in complete or intermittent failures. Do the following to prevent ESD:**

- **Always follow ESD prevention procedures when removing and replacing cards.**
- **Wear an ESD-preventive wrist strap, ensuring that it makes good skin contact. Connect the clip to an unpainted surface of the chassis frame to safely channel unwanted ESD voltages to ground.**
- **To properly guard against ESD damage and shocks, the wrist strap and cord must operate effectively. If no wrist strap is available, ground yourself by touching the metal part of the chassis.**

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## **1.0 Before you Begin**

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In the box, you will find:

- One SmartNode 10100
- One set of mounting brackets with screws
- One DB-9 to RJ-45 adapter
- Three CAT5 Ethernet straight cables (male-male), three meters in length
- One warranty sheet
- One packing slip
- One SmartNode 10100 Series Quick Start Guide
- One SmartNode 10100 Important Notice sheet with unique information for your specific unit

To install the SN10100, you will need (not included):

- Two AC power cords
- 19" equipment rack

*Note* Two DC power cable are included with DC units.

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## 2.0 Installing the rack hardware

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1. Connect the Ethernet port to your management network.

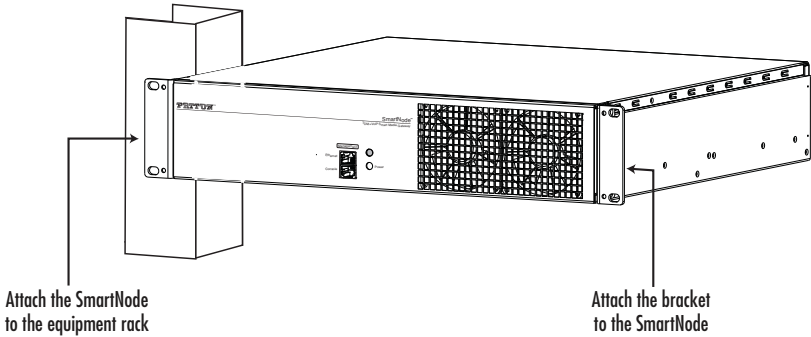


Figure 1. Installing the SN10100

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## 3.0 Connecting to the VoIP Network

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1. Connect a CAT5 Ethernet cable to VoIP0 at the rear of the SN10100. Connect the other end of the same CAT5 cable to the Gigabit Ethernet switch.
2. If your system employs a second Gigabit Ethernet switch for redundancy, connect a second CAT5 Ethernet cable to VoIP1 and the other end to the second Gigabit Ethernet switch.

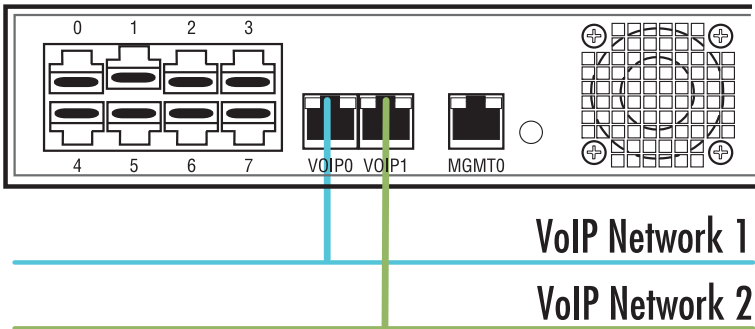


Figure 2. Connecting the VoIP ports

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## 4.0 Connecting to the PSTN Network

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A SN10100 with 8 RJ48C type ports enables the connection to T1/E1 lines.

**Note** T1/E1 ports are activated by software license; the number of active ports depends on the licenses purchased.

1. Start with port 0, located at the top and leftmost position. Connect one cable between this port and the T1/E1 line.
2. Repeat step 1, using the next available port.

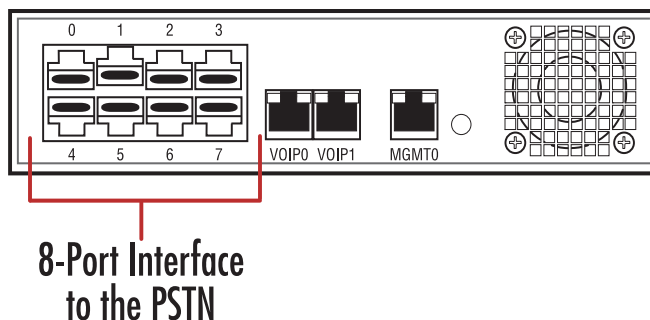


Figure 3. Port Interface to the PSTN

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## 5.0 Connecting to the Power source

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### 5.1 AC Power

The SN10100 connects to two independent power sources. If only one power source is used, press the green button at the rear of the unit to disable the audible alarm.

1. Connect an AC power cable between the AC connector of the SN10100 and an AC supply.

2. Power up the SN10100 by turning on its power switch(es).

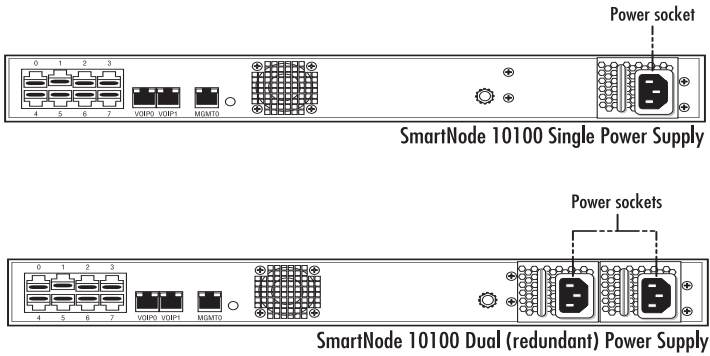


Figure 4. AC Power Connection(s)

## 5.2 DC Power

The SN10100 DC models are furnished with one or two DC power connection ports and is supplied with two DC power cables.

1. Connect one DC cable to the DC outlet at the rear of the SN10100
2. Connect one lead of the DC power cable to the positive terminal of the DC power source.
3. Connect the other lead of the DC power cable to the negative side of the DC power source.
4. Repeat steps 1-3 for the second DC power source, if necessary.

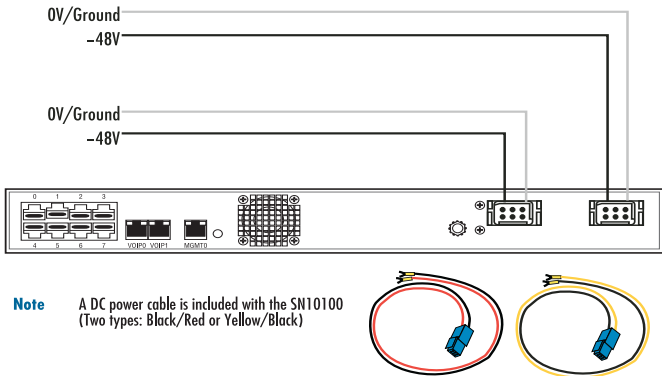


Figure 5. DC Power Connection(s)

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## 6.0 Connecting to the Control host

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1. Connect to the Control host through the Console Serial port (see 6.1 “Connecting the Console Serial port”) OR the Ethernet management interface (see 6.2 “Connecting the Ethernet management interface”).  
The IP address of the management port is *192.168.200.10/24*. If it is not possible to connect to the management port via IP, use the serial cable to connect to the SmartNode Control host for the first time.
2. Default HOSTNAME is the Control host serial number, which can be found in the “Important Notice” sheet included with your shipment.
3. Refer to the “Important Notice” sheet for the username and password to log onto the Control host. Navigate to: *HTTP://HOSTNAME:12358*, to configure the SmartNode unit. (username/password: root/root)

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### 6.1 Connecting the Console Serial port

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1. Connect the supplied CAT5 RJ-45 (male-male) cable between the COM port of your computer and the serial port (labeled 1010) of the SN10100.
2. If your computer's serial port features a DB9 connector, use the DB9 to RJ-45 adapter supplied with your SN10100. If your computer's serial port features a USB connector, you will need to provide a USB to DB9 adapter.

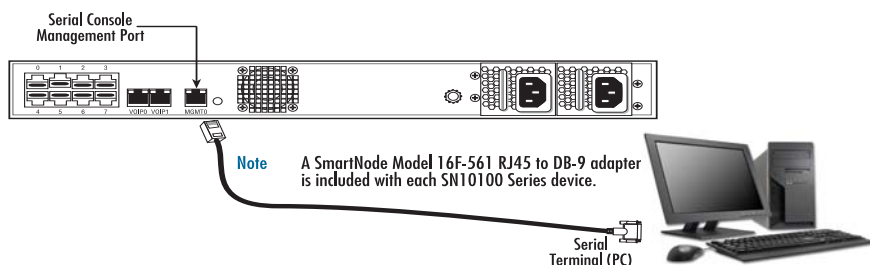


Figure 6. Computer to the Console Serial port

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### 6.2 Connecting the Ethernet management interface

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1. Connect the supplied CAT5 Ethernet cable to the management port labeled **Ethernet** on the front of the SN10100.

2. Login to the SmartNode using the specific credentials included on the “Important Notice” sheet that shipped with your unit. The management port is configured with a static Class C IP address by default.

## Management Interface

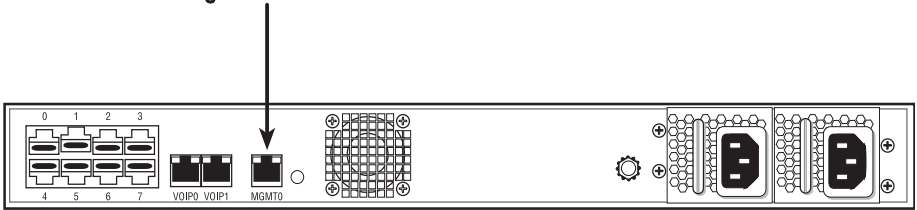


Figure 7. Connecting the management interface

## 7.0 Configuring the SmartNode

Access the SmartNode through the Console Management port, or through the Ethernet management port. Refer to the following sections for more information:

- 7.1 “Accessing the SmartNode via the Console Serial port”
- 7.2 “Accessing the SmartNode via the Ethernet management port”

### 7.1 Accessing the SmartNode via the Console Serial port

#### Logging into the SmartNode Console

1. To physically connect the Console Serial port, follow the instructions in section 6.1, “Connecting the Console Serial port” on page 7.
2. To communicate with the SN10100 through the console port, you must first configure a terminal emulator or console application (such as HyperTerminal or Putty) in order to configure initial settings. Configure the terminal emulator with the following settings:

Baud rate	Data rate	Parity	Stop bits	Flow control
9600	8 bits	None	1	None

3. Login to the console using the specific credentials included on the “Important Notice” sheet that shipped with your unit. (If you do not have the “Important Notice” sheet, contact support@patton.com.) The factory default configuration for the Ethernet Interface IP address is 192.168.200.10/24.



## 7.2 Accessing the SmartNode via the Ethernet management port

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### Logging into the SmartNode via SSH

1. To physically connect the Ethernet management port, follow the instructions in section 6.2, “Connecting the Ethernet management interface” on page 7.
2. To access the SN10100, you must use an SSH connection. The password is set at the factory and is indicated on the “Important Notice” sheet included with your unit. (If you do not have the “Important Notice” sheet, contact support@patton.com.)
3. The factory default configuration for the Management Ethernet Interface is a Static IP address: 192.168.200.10/24.

### Preparing for Web Management

After logging into the SN10100 via the console port or SSH, a control menu displays. This menu allows you to complete simple tasks like setting the time zone and configuring the management IP Address, and more complicated tasks like advanced debugging.

For debugging assistance, contact Patton’s Support team at support@patton.com. Once your IP Address and Time Zone are set, there are no more configuration steps in the CLI and you may proceed to the web management page.

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## 8.0 Logging into the Web Interface

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This section describes how to login and navigate the SmartNode 10100 Web Portal.

The first step involved in initially configuring any Smart Media system involves logging on to the Web Portal. This can be divided into two distinct tasks: connecting to the web server and logging on to the Web Portal. For establishing IP connectivity refer to section 7.2, “Accessing the SmartNode via the Ethernet management port” on page 9.

### 8.1 Connecting to the web server

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Using a web browser, connect to the Web Portal by typing the following in you address bar:

- http://[DEVICE HOST NAME]:12358
- or, alternately,
- http://[DEVICE IP ADDRESS]:12358

### 8.2 Logging onto the Web Portal

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In order to log onto the Web Portal configuration tool, enter the root user ID and password. The default values for these parameters are:

- User ID: root

- Default password: root

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## 9.0 Additional Information

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Refer to the following manuals—available online at [www.patton.com/manuals](http://www.patton.com/manuals)—for detailed information about installing, configuring and operating the SN10100 models, along with warranty, trademark and compliance information.

- SmartNode 10100 Series User Manual — [www.patton.com/manuals/SN10100.pdf](http://www.patton.com/manuals/SN10100.pdf)
- Smart Media System Software Configuration Guide — [www.patton.com/manuals/SmartMedia-scg.pdf](http://www.patton.com/manuals/SmartMedia-scg.pdf)

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## A.0 Compliance Information

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### A.1 Compliance

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#### EMC

- FCC Part 15, Class A
- EN55022, Class A
- EN ETSI 300 386 V1.3.3

#### Low-Voltage Directive (Safety)

- UL 60950-1/CSA C22.2 No. 60950-1
- IEC/EN60950-1

### A.2 Radio and TV Interference

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This device 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. This equipment has been tested and found to comply with the limits for a Class A 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 equipment does cause interference to radio or television reception, which can be determined by disconnecting the unit, 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).

### **A.3 CE Declaration of Conformity**

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Patton Electronics, Inc declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The Declaration of Conformity may be obtained from Patton Electronics, Inc at [www.patton.com/certifications](http://www.patton.com/certifications).

The safety advice in the documentation accompanying this device shall be obeyed. The conformity to the above directive is indicated by CE mark on the device.

### **A.4 Authorized European Representative**

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D R M Green, European Compliance Services Limited.

Avalon House, Marcham Road, Abingdon,

Oxon OX14 1UD, UK

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## **B.0 Customer and Technical Support**

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Toll-Free VoIP support: call [sip:support@patton.com](tel:sip:support@patton.com) with a VoIP SIP client

Online support: [www.patton.com](http://www.patton.com), e-mail support: [support@patton.com](mailto: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: 9:00 am to 5:30 pm CET (08:00 to 16:30 UTC/GMT)

Fax: +1 (301) 869-9293 (USA) or +41 (0)31 985 25 26 (Switzerland)

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**Warranty, Trademark, & Compliance Information**

For warranty, trademark and compliance information, refer to the user manual for your SN10100 model, available online at [www.patton.com/manuals](http://www.patton.com/manuals).