



# **Passport 4400**

## **Release Notes for R2.0.11**

Part Number 800-1990-20, Rev. F

**June 2000**



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*Please note that pages 10-1 through 10-6 is a manual update (change pages to another manual). They are part of the last section (5). The page numbers match the associated Manual, not this document. There are no missing sections.*



# Introduction 1

The document provides information on the Passport 4400, Release 2.0.x, available for general customer release. You will find information on the software files, the documentation and the new features. Additionally, there is a section on current known issues with the software and one on manual updates.

**Note:** Release Notes are updated on an as needed basis. Please check the Web Page <http://support.baynetworks.com/library/tpubs> to find out if this document has been updated.

## Documentation

The following relevant Passport 4400 documents are available on CD-ROM, which can be installed on a workstation and accessed on-line. Additionally, these documents are available on the following Nortel Networks Web site: <http://support.baynetworks.com/library/tpubs/>:

- 800-1951-20, Passport 4400 Hardware Installation Manual
- 800-1952-20, Passport 4400 Operator's Manual
- 800-1950-20, Passport 4400 CLI Reference Manual
- 800-1943-20, Passport 4400 Analog Voice Modules Manual
- 800-1944-20, Passport 4400 T1/E1 and Digital Voice Module Manual
- 800-1961-20, Passport 4400 Low-Speed Data Services Manual

The following Passport 6400 NTPs are available on the Nortel Magellan World Wide Web at URL <http://47.208.136.61/ntp/>:

- NTP 241-7001-201, Magellan Passport Access Network Link User Guide
- NTP 241-7001-803, Passport IP Routing User Guide
- NTP 241-7001-804, Passport IPX Routing User Guide
- NTP 241-7001-802, Passport Frame Relay DTE Access User Guide
- NTP 241-7001-300, Passport Frame Relay UNI User Guide
- NTP 241-7001-410, Passport Voice Networking User Guide
- NTP 241-7001-180, Passport Remote Server Agent User Guide
- NTP 241-6001-106, NMS Magellan Access Configuration Server Installation and Administration Guide
- NTP 241-7001-340, Passport Frame Relay ISDN Switched Access User Guide

## Upgrading from Previous Releases

### Passport 4400

- *Upgrading Release 1.x to Release 2.0:* You must do a cold start when upgrading. This means your unit will return to the factory defaults—all custom configurations will be lost.
- *Upgrading from 2.0.9 and earlier to Release 2.0.10 and later (10309543),* set the fax rate parameter (in the voice profile) to 7200 b/s during the upgrade process.

**Note:** After Upgrade

- *In a Passport 4400 only network,* you can set the fax rate parameter to meet your requirements. When the fax rate is configured to 9600, 13,000 b/s bandwidth will be reserved for all voice calls. Refer to page 4-1, first issue for additional information.
- *In a mixed network with Passport 6400 units,* note that, regardless of the fax rate configuration, all MVP calls will have 10,800 b/s reserved bandwidth for the voice session.
- This product is intended for Passport 4400 access to the Passport 6400.

### Software Compatibility

The Release 2.0.11 software is compatible with the following software:

- Passport 6400 P4.2.6 (BD02S6D)
- NMS 10.7

### Required Hardware

All Passport 4400 modules are required to be of the following Card Codes and Revision Levels to use any of the Passport 4400 R2.x features.

**Note:** The NTAU01CA Ethernet Base Module does not support Release 2.0.9 or earlier. (60105734)

Card Name	Card Code	Release
Passport 4400 Ethernet Base Module	NTAU01AA	10
WAN Serial Interface Module	NTAU03AA	05
Turbo Universal Voice Module, Dual Channel	NTAU50AA	02
E&M Voice I/F Module	NTAY09AA	03
FXO Voice I/F Module	NTAY11AA	03
FXO - European Voice I/F Module	NTLN23AA	01
FXS Voice I/F Module	NTAY12AA	01
T1 Module - Dual Port	NTAY14AA	05
E1 Module - Dual Port	NTAY16AA	06

Card Name	Card Code	Release
Digital Voice Expansion - 12 Channel	NTAY18AA	02
Digital Voice Module - Single	NTAU60AA	01
Analog Voice Module - Single Channel	NTAU61AA	02
Analog Voice Module (European) - Single Channel	NTLN21AA	--
Analog Voice Module - Dual Channel	NTAU62AA	02
Analog Voice Module (European) - Dual Channel	NTLN22AA	--
T1 DSU/CSU	NTAU04AA	04
56 K DSU/CSU	NTAU02AA	05
ISDN U Interface Module	NTAU05AA	05
ISDN S/T Interface Module	NTAU06AA	05
4-Port Serial Expansion	NTAU83AA	04
8-Port Serial Expansion	NTAU74AA	04

If you have a Marathon and wish to use some of the existing voice modules in the Passport 4400, use the following table to select the modules that can be used.

**Note:** You must upgrade the modules to Passport 4400 DSP code (part of the application software, see page 1-6).

#### Equivalent Voice Modules

Description	Passport 4400 Module	Marathon Model Number Equivalent
T1 Voice Module (TVM/1), single channel	NTAY99AA	5000TAM/1E, Rev M or later
T1 Voice Module (TVM/2), dual channel	NTAU14AA	5000TAM/2, Rev M or later
E1 Voice Module (EVM/1), single channel	NTAY15AA	5000EAM/1E, Rev K or later
E1 Voice Module (EVM/2), dual channel	NTAY16AA	5000EAM/2, Rev K or later
Digital Voice Expansion Module (DVEM)	NTAY18AA	5000DVEM/12
Digital Voice Module (DVM)	NTAU60AA (also kits NTBQ54AA and NTBQ55AA)	5000DVM, Rev L or later
Analog Voice/Fax Module (AVM), single channel	NTAU61AA	5000CVM/1
Analog Voice/Fax Module (AVM), dual channel	NTAU62AA	5000CVM/2
Universal Analog Voice Module (UAVM)	NTAU50AA	5000UVM/*T (* = 1 or 20)

**Equivalent Voice Modules**

FXS Interface for UAVM	NTAY12AA	5000V/XSL
FXO Interface for UAVM	NGLM23AA	5000V/XOL
E&M Interface for UAVM	NTAY09AA	5000V/EM+

**Note:** Once these modules are installed in a Passport 4400, they should remain as Passport 4400 modules.

## Software

The installation procedure is described in the Passport 4400 Operator's Manual (800-1953-20), Chapter 4, System Utilities (TFTP Software Download). Also, refer to page 3-1, Runtime TFTP Software Download, of these Release Notes.

Passport 4400 units are shipped from the factory with the current software version and associated boot code installed. The software that comprises Release 2.0.11 is listed below. This release is also available to certified distributors at [http://esonline2.us.nortel.com/imds?pg=/dept/cse/eng\\_notes/pp4400](http://esonline2.us.nortel.com/imds?pg=/dept/cse/eng_notes/pp4400). Copy all the following files from the Web to your TFTP server:

- bt2011010.bld (Passport 4430/50 boot code) (required)
- bt2011010.bin (Passport 4430/50 boot code, binary image) (optional)
- pr2011010.bld (Passport 4430/50 application code) (required)
- pr2011010.tar (Passport 4430/50 MIB files in tar format)
- rs2011010.pdf (Passport 4430/50 Release Notes in PDF format)
- rs2011010.ps (Passport 4430/50 Release Notes in PostScript format)

A list of the code on the CD you purchased with your unit is shown below. In the event you need to reload software to your unit, you may use the CD (Release 2.0.4) which will get you up and running immediately until the current software can be downloaded. Manually copy all the required files and those you require from the CD to your TFTP server:

- bt2040xx.bld (Passport 4430/50 boot code) (required)
- bt2040xx.bin (Passport 4430/50 boot code binary image) (optional)
- pr2040xx.bld (Passport 4430/50 application code) (required)
- pr2040xx.tar (Passport 4430/50 MIB files in tar format)
- ACCGFELX.FIM0200 (LDM code 2.0 for Passport 4400)
- r020.pdf (Release notes for LDM code 2.0 in PDF format)
- r020.ps (Release notes for LDM code 2.0 in PostScript format)
- rs2040xx.pdf (Passport 4430/50 Release Notes in PDF format)
- rs2040xx.ps (Passport 4430/50 Release Notes in PostScript format)

The current Passport 4400 Application software, a single file supplied in a “**bl**d” format, consisting of the following six laudable images:

- Ethernet Base Module code that runs on the 68040 processor
- DSP code for AVM
- DSP code for UAVM
- DVM code for the DVM installed on the TVM, EVM and DVEM
- T1 code for the 80186 CPU on the TVM
- E1 code for the 80186 CPU on the EVM

*Boot image:*

Passport\_4400\_Rel\_2.0.11\_Rev. 0.1.0 01/12/00 10:50:59

*Application image:*

Passport\_4400\_Rel\_2.0.11\_Rev. 0.1.0 01/12/00 10:51:37

# New Features **2**

## **Hoot N Holler (Release 2.0.6 and later)**

Hoot N Holler is a trader voice application providing a permanent end-to-end connection across the network. When a broker wishes to communicate with the trading floor, he/she simply presses a button on the handset and starts talking. There is ZERO delay as no call set-up is required. For *Hoot N Holler* applications, the far end does not even ring—it is already *offhook*.

**Note:** Interworking with the Passport 6400/7400 series Hoot N Holler service is not provided.



## Network Requirements

### Voice Requirements

- You must provision the VNCS RSA/RSI services prior to establishing a call across the network.
- All Passport Functional Processors, which will provide PANL service and terminate 4400 Switched Permanent Virtual Circuits (SPVCs), must be at level PM2.

### NMS Deployment

The NMS platform must be installed and configured to support the TFTP server function for software download, and telnet access to Passport 4400 via TCP/IP. Please refer to the NMS Release Notes for further details.

## Runtime TFTP Software Download

Software Download is part of the future Passport 4400 network management functionality, but can also be initiated from the Passport 4400 Command Line Interface (CLI). Runtime TFTP software download requires TFTP configuration on the workstation, and a properly configured Passport ILS Network Management Core Router to provide management IP connectivity to Branch Passport 4400's.

## TFTP Download Server Setup

The download server is a TFTP daemon running on an NMS or other workstation. It must be configured to run in secure mode, and be provided with the name of the directory where the software resides. This directory should not contain anything other than the software for download, as everything in it is available to any user on the network who knows how to use TFTP. TFTP does not provide any password protection of the data. (For information on the TFTP server see “man tftp”). To set up the TFTP server, do the following:

1. Login as root, and edit the /etc/inetd.conf file.
2. Find the line that starts with “#tftp dgram” and remove the comment character (#) from the beginning of the line.
3. Then change the directory specified at the end of the line from “/tftpboot” to “/opt/MagellanPASSPORT 4400/software”.
4. Save the changes and reboot the workstation.

**Note:** If the line is already uncommented, it means the workstation is already serving as a TFTP server. You will either need to find another workstation, or use the directory already specified. If you choose to use the directory already specified, the files used by the other system must not conflict with the naming conventions for Passport 4400 Software. We recommend using a different workstation to reduce the chance of conflicts.

## Boot Menu Software Installation

The Passport 4400 is equipped with a 'Boot Menu' and is intended for use only by Nortel manufacturing or customer support personnel for debugging purposes. An example of debug FTP software installation via the boot menu is provided below. A TFTP server is not required on the download host, however an FTP daemon or process must be available, since the file transfer uses FTP.

The target Passport 4400 and software distribution site must be connected to the same LAN subnet. Information shown within square brackets represents the boot menu defaults. Entering the information followed by a carriage return makes changes to the information within brackets (shown immediately after brackets). In cases where there is no information shown after the square brackets, then this information is not mandatory for software installation. Note that if a LAN gateway does NOT exist between the software distribution site and the target Passport 4400, a period (.) is required after the 'gateway address' prompt.

## Installation

---

1. View Current Software Status
  2. Install New Software
  3. Install New Bootrom
  4. Enter Debug Menu
  5. Exit (Autoboot)
- 

selection -> [1] 2

## Install New Software Image

---

Bank 2 has been selected.

```
.host name      -> [wc]
.host address   -> [198.48.9.34] 131.147.140.33
.file name      -> [/tmp/oscar/mpa.bld]
/opt/Magellan/software/pr111001/pr111001.bld
.target name    -> [mpa]
.target address -> [198.48.9.20:FFFFFF00] 131.147.140.34
.gateway address -> [].
.user login     -> [atlas] myuserid
.user password  -> [atlas] mypassword
```

---

## Network Parameters

---

```
boot device      : qu
processor number  : 0
host name        : wc
file name        : /opt/MagellanMPA/software/pr111001/pr111001.bld
inet on ethernet (e) : 131.147.140.34:fffffe0
host inet (h)     : 131.147.140.33
user (u)         : myuserid
ftp password (pw) : mypassword
flags (f)        : 0x0
target name (tn)  : mpa
Proceed with S/W installation? [yes]
```

---



# Known Issues 4

The following known problems exist in Release 2.0.x. This list in no way illustrates all outstanding known issues. Numbers, enclosed in parenthesis (99999999) are internal tracking numbers.

## Fixed in Release 2.0.11

- **Issue Resolved:** In FRDCE applications, when FRDCE DATA traffic was heavy, the LMI PVC STATUS messages were delayed for a significant amount of time, causing the FRDCE equipment to time out. This is now fixed. (60099856)
- **Issue Resolved:** One way voice call where voice was heard in one direction only. This no longer occurs. (10282918)

## Fixed in Release 2.0.10

- **Issue Resolved:** When traffic management was enabled and fax transmissions were configured for 9600, the traffic management did not allow more than 10.8 kb/s to be transmitted. Fax at 9600 required up to 13 kb/s to operate properly. Now when the fax is configured for 9600 b/s, 13 kb/s will be allocated for bandwidth claiming across the link. (60090221, 60093848, 10309543)

### NOTES:

- For 9600 to 9600 fax, point-to-point, to operate correctly, 2.0.10 must be installed and operational at each end point. (Refer to Upgrade section for special instructions.)
- A Passport 4400 with Release 2.0.10 operating with a Passport 4400 with Release 2.0.9 or less in a point-to-point application must use 7200 fax or less with traffic management enabled.
- Because of the 13 kb/s bandwidth claiming feature for each voice or fax call, the number of voice calls permitted across the WAN will be reduced.
- Interworking with Passport 6400: Regardless of the configured fax rate, MVP calls will have 10,800 b/s reserved bandwidth for all voice calls.

## Fixed in Release 2.0.9

- **Issues Resolved:** Fax improvements address the following issues (SRs): 10197655, 60062518, 10229400, 10197655, 60082692, 60062518, 60076259, 60002269, 60002235, 60062518, 60084039, 10264320
  - Fax improvements:
    - Improved multi-page fax capability, blocks stray DC on digital lines, better off-net fax exchange success rate.
    - Now allows for the following fax machine models to operate with quality fax transmissions in Passport 4400 networks: Canon 380, Panasonic UF83 MkII, Pitney Bowes models, Muratec models.
    - Improved fax call completion rates. More faxes are successfully exchanged from Passport 4400 to MVP networks.
    - T.30 messages exchanged during faxing have no trailing “garbage bytes,” which were seen occasionally when running previous revisions. This improves interoperability with fax machines having fast turnaround times for T.30 messages.
    - Prevents the train down process causing the exchange of fax at less than 9600 bits/s. Successful 9600 bits/s fax transmissions occurs more often.
    - The T2 timer was increased to 8 seconds thus allowing silence intervals (for example during Phase B renegotiation) to comply with the T.30 specification of  $6 \pm 1$  seconds.

These intervals can occur when certain parameters like resolution etc. are changed between pages, or sheets of different sizes are sent in the same fax call. This change will prevent the code from falling out of fax mode back to voice during such situations and prevent consequent fax call failures.
    - A 500Hz detector was added to enhance discrimination between V.21 and V.29 signals present during fax transmissions. This will improve the fax call success rate with some fax machines.
    - The fax signal output levels were recalibrated further to marginally below -12 dBm. Now the maximum possible fax performance is retained during offnet faxing. Additionally, it maintains interoperability with Canon fax devices which do not respond well to input signals greater than -12 dBm.
- **Issues Resolved:** Voice improvements address the following issues (SRs): 10261533, 10252093, 10267931, 60094057, 60022190, 60094179, 60088889
  - Improved voice and fax performance on E1 circuits (better data integrity and less quantization noise)
  - Fixed excessive bandwidth consumption by DSP when Bandwidth is set to *Voice Activated*. This improves voice quality under certain noisy conditions and avoids packet loss.
- **Issue Resolved:** Maximum output attenuation level no longer requires a reset when provisioning. (10261533)

- **Issue Resolved:** During call initiation if the originator disconnected at the same time the receiver answered, the channel would lock up. The channel state reflected this with a continuous *in progress switch connect*. This no longer occurs. (10252093)
- **Issue Resolved:** Fax processing has been improved. (60076259)
- **Issue Resolved:** When using R2Q/421 signaling in E1 digital voice applications, you may experience intermittent one-way audio. This is now fixed. (60002190)
- **Issue Resolved:** DTMF regeneration enabled itself improperly requiring enable, disable, enable and disable. This is now fixed. (60085952)

## Fixed in Release 2.0.8

- **Issue Resolved:** T1/E1: Caller heard dead air when the Passport 6000 MVP to Passport 4400 connection was made and the carrier was down. In the event of carrier line loss, voice calls will be notified that service is unavailable. (10142489)
- **Issue Resolved:** Lack of security in provisioning the Passport 4400. Only one CLI or NMS session is now permitted at one time. (30005384)
- **Issue Resolved:** ISDN Retry count exceeds two times within three minutes, which is out of specification. (60002045)
- **Issue Resolved:** Delay measurement capability. A time stamp measurement has been added to the Ping utility. (10120879, 60022142)
- **Issue Resolved:** The voice channel loopback test has been improved. (60049200)
- **Issue Resolved:** Added TFTP upload feature. (60068714)
- **Issue Resolved:** TFTP Configuration Active Bank not properly set. (60073999)
- **Issue Resolved:** MacFilter range values differ from those listed in the MIBS. (10159866)
- **Issue Resolved:** Different values are returned for CLI and SNMP Agent. (10164012)
- **Issue Resolved:** Setting the time and date now matches the calendar year-you cannot set the date for a non-calendar date (such as February 31). (60047723)
- **Issue Resolved:** Back up services improvement now permit data services to operate better. (10173248)
- **Issue Resolved:** Passport 4400 double-talk impairment at the beginning of a call has been corrected. (10179573)
- **Issue Resolved:** Voice Channel Traps are now generated. (10180128)
- **Issue Resolved:** Primary and backup services no longer lock up the node (1021173)
- **Issue Resolved:** Fax enhancements have improved the interoperability. Additionally, more group 3 commercial fax machines are supported. (10201744)

- **Issue Resolved:** ISDN backup services no longer permit two B-channels at the same time. (10211180)
- **Issue Resolved:** Provisioning for set port ad is now working correctly. (10202511)
- **Issue Resolved:** Improvements to the discard priority provisions to match the Passport 6400 terminology for discard priorities. (60002067)
- **Issue Resolved:** System software now prevents DVM channel resets. (60059900)
- **Issue Resolved:** DLCI provisioning is now limited to 16-991. (10163552)
- **Issue Resolved:** Improved ISDN backup switching to permit more than one connection attempt in case the first backup attempt fails. (60002048)
- **Issue Resolved:** Improved DTMF digit detection/regeneration to process more than 30 digits correctly. (60033222)
- **Issue Resolved:** There are now improvements in the primary/secondary switching services. (10181757)
- **Issue Resolved:** There are improvements in the voice to resolve problems experienced in the sup releases between 2.0.4 and 2.0.8. (10230498)
- **Issue Resolved:** Fixes provide a migration path for existing beta customers (using build 38) to upgrade to Release 2.0.8. Voice calls can now be completed via Beta and 2.0.8. (10231453, 60055394)
- **Issue Resolved:** Improvements are included to prevent T1/E1 digital voice calls from locking up the unit. (50114886)

## Open Issues

- **Issue:** Voice code DSP upgrades will fail when the voice channel is configured as autocall type Hoot N Holler. This is fixed in Release 3.1.4. (60099134)  
**Resolution:** Set autocall type id (voiceprofile) to normal mode. Save the configuration and reset the node or reset the voice channels. This idles all the voice channels so you can download the code. Proceed with the voice DSP upgrade from older code to new code. Then reconfigure the autocall type to Hoot N Holler.
- **Issue:** When switching from backup to primary, the HTDS service will not switch to the primary link when the backupRemainTimer expires. The HTDS service will switch to the primary link when the secondary link disconnects. This is fixed in release 3.1.1. (10167793)
- **Issue:** The transfer priority does not operate properly when Traffic Management is enabled. This is fixed in Release 3.1.1 (10191888)
- **Issue:** The new Ethernet Base Module NTAU01CA is not compatible with software Release 2.0.9.0.1.0 and earlier. (60105734)

# Manual Updates 5

The following updates have been made to the Passport 4400 user manuals since the manuals went into production. Please make note of these updates in your copy of the specified manual.

## Hardware Installation Manual

- On pages 9-7 and 10-3 there appears information on the DVEM power harness. Please note that this is for the 5-slot unit only; it does not apply to the Passport 4430. (60103173)

## All Voice Manuals

- The Passport 4400, Release 2.0 voice manuals contain references to configuring modem settings, which is in error. The Passport 4400, in this release, does not support modem configuration. (30113669)
- The Passport 4400 DTMF detect/regenerate is only available for fixed length. Both sides (Passport 6000 MVP and Passport 4400) **must** be set the same way (such as DTMF detector enable and in fixed length). (10255133)
- The manuals list the range for max forwarding digits as 1-40. This is incorrect. The range is 1-36. (60093752)

## Hoot N Holler

Page 3-29 of the Analog Voice Module Manual (800-1943-20) describes setting the Voice Switching Profile Options. Under the section titled Command Structure, a new option should be added, Autocall Type. Information on that parameter and associated parameters required to set the Hoot N Holler feature appear on the following pages.

**Note:** The Hoot N Holler feature is not supported on Passport 6400.

## Autocall Type

This subcommand is used to select a method for establishing autocalls between selected voice channels. Specifically, it allows the user to choose between the *normal* (standard) method, and *Hoot N Holler*.

### **Normal**

When this option is selected, going off-hook causes the local Voice Application (VA) to initiate a search for the network address (DNA) of the destination voice channel. Once resolved, the local (calling) VA establishes a network connection with the destination (called) VA. Finally, the two voice channels use the network connection to establish a voice connection. The connection is terminated when the user at either end hangs up the phone. While a connection is in place, both channels are in a busy state to any other network station. Once the connection is terminated, and provided there are no other restrictions (e.g., outgoing calls only), either side is free to receive calls from another channel. Note that *network connection*, as used in this context, applies to a connection established either over a frame relay link or between channels located within the same physical unit.

### **Hoot N Holler**

This feature refers to a permanent connection between two voice channels designated as *master* and *slave*, respectively. It is the responsibility of the master to establish and maintain the network connection. It does so upon power up, following a reset, or through link failures.

By definition, the *master* is a voice channel whose switching profile *autocallType* is configured for *masterHootHoller*. Its *autoCallNumber* is an index number pointing to an extension number in the ingress table. That extension number is an egress table phone number entry in its designated *slave* channel.

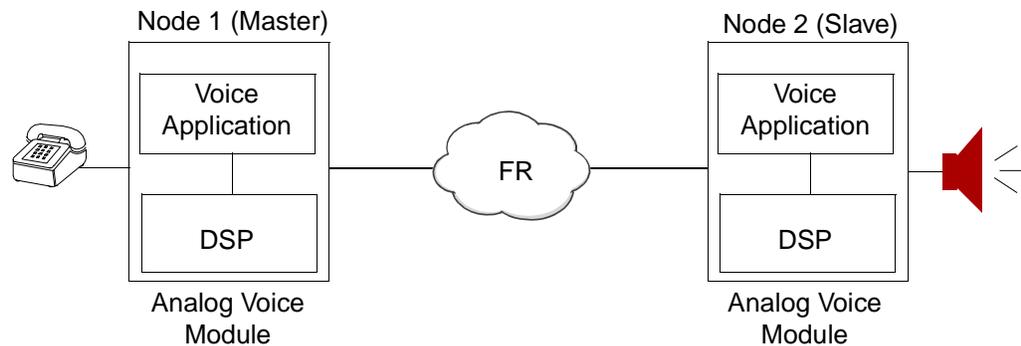
The *slave* is a voice channel whose switching profile *autocallType* is configured for *slaveHootHoller*. Its *autoCallNumber* is an index number pointing to an extension number in the ingress table. That extension number is an egress table phone number entry in its designated *master* channel. It can accept calls from its designated *master* channel, but cannot initiate calls.

At start-up, master and slave behave differently; the master attempts to establish a network connection. Once a network connection has been made, master and slave behave the same way. While so designated, neither can accept calls from another network channel.

Like other Passport 4400 voice circuits, *Hoot N Holler* incorporates *bandwidth-on-demand*, a feature designed to optimize bandwidth utilization. Even though the connection is semi permanent, bandwidth is used only when there is voice traffic present, and then only in the direction of the voice traffic. To enable this bandwidth saving feature, the *bandwidth* parameter of the voice profile must be set to *voiceActivated*.

## Application

In a typical application, Figure 5-1, the slave channel is connected to a loudspeaker which is considered to be always off-hook. One-way conversation starts when the user at the master end goes off-hook and summons a person at the slave end.



**Figure 5-1. Hoot N Holler Typical Application**

### Configuration - at the Master End

1. Enter in the ingress table the slave channel's network number.

```
CLI>set voice ingressTable ingressNumber
<IngressIndex>           : INTEGER (1..32)
<IngressNumber>         : "String" (0..40)
```

For *IngressIndex*, enter a number from 1 to 32. For this example, assume that the index number is 1.

For *IngressNumber*, enter the number of the slave channel's network number. For this example, assume that the number is 1234.

2. Enter ingress index 1 as the autocall number.

```
CLI> set voice switchingProfile autoCallNumber
<Profile>                : INTEGER (1..32)
<AutoCallNumber>        : INTEGER (0..32)
```

For *Profile*, enter the number of the profile you are configuring. For this example, assume that this is profile number 1.

For *AutoCallNumber*, enter 1. This number corresponds to 1234, the number you have previously entered in the ingress table at index 1.

3. Configure autoCallType for masterHootnHoller.

```
CLI> set voice switchingProfile autoCallType
<Profile>                : INTEGER (1..32)
<AutoCallType>           : normal | masterHootnHoller |
                           slaveHootnHoller
```

For *Profile*, enter the number of the profile you are configuring. For this example, assume that this is profile number 1.

For *AutoCallType*, enter *masterHootnHoller*.

4. Assign Switching Profile 1 to the applicable voice channel.

```
CLI>set voice parameters switchingprofileID
<CardNumber>             : limB | limC| limD | limE
<ChannelNumber>          : INTEGER (1..12)
<SwitchingProfile>       : INTEGER (1..32)
```

For *CardNumber*, enter the location of the card (B, C, D, or E) whose channel you are configuring.

For *ChannelNumber*, enter 1 or 2 (maximum analog is 2), as applicable.

For *SwitchingProfile* enter 1, the number of the switching profile you have previously configured and which you are now assigning to that voice channel.

### **Configuration - at the Slave End**

**Note:** It is assumed that the number 4567 has been previously entered in the master's egress table as the *phoneNumber* and assigned to one of the voice channels.

5. Enter in the egress table the master's network number.

```
CLI>set voice ingressTable ingressNumber
<IngressIndex>           : INTEGER (1..32)
<IngressNumber>          : "String" (0..40)
```

For *IngressIndex*, enter a number from 1 to 32. For this example, assume that the index number is 1.

For *IngressNumber*, enter the number of the master channel network number. For this example, assume that the number is 4567.

6. Enter ingress index 1 as the autocall number.

```

CLI> set voice switchingProfile autoCallNumber
<Profile>                : INTEGER (1..32)
<AutoCallNumber>        : INTEGER (0..32)

```

For *Profile*, enter the number of the profile you are configuring. For this example, assume that this is profile number 1.

For *AutoCallNumber*, enter 1. This number corresponds to 4567, the number you have previously entered in the ingress table at index 1.

7. Configure *autoCallType* for *slaveHootnHoller*.

```

CLI> set voice switchingProfile autoCallType
<Profile>                : INTEGER (1..32)
<AutoCallType>          : normal | masterHootnHoller |
                        slaveHootnHoller

```

For *Profile*, enter the number of the profile you are configuring. For this example, assume that this is profile number 1.

For *AutoCallType*, enter *slaveHootnHoller*.

8. Assign Switching Profile 1 to the applicable voice channel.

```

CLI>set voice parameters switchingprofileID
<CardNumber>            : limB | limC|limD | limE
<ChannelNumber>        : INTEGER (1..12)
<SwitchingProfile>    : INTEGER (1..32)

```

For *CardNumber*, enter the location of the card number whose channel you are configuring.

For *ChannelNumber*, enter 1 or 2 (maximum analog is 2), as applicable.

For *SwitchingProfile* enter 1, the number of the switching profile you have previously configured and which you are now assigning to that voice channel.

## Power Supplies

Please replace Chapter 10 with the following pages. These pages clarify and correct information for configuring power supplies.



# Power Supplies 10

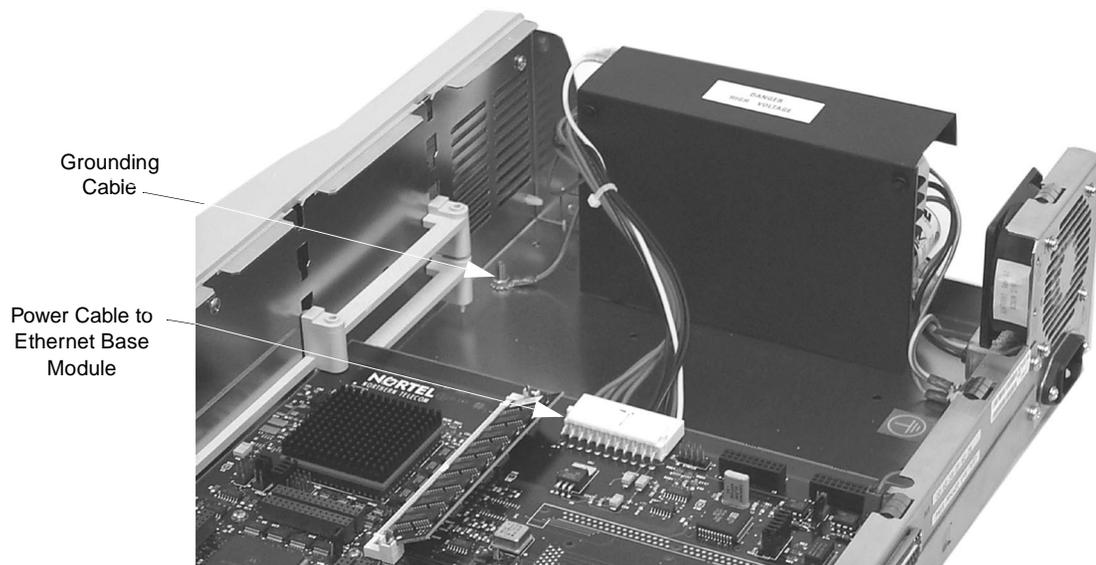
This chapter discusses the power supplies available for the following Passport units:

- 3-slot Chassis power supply (page 10-1)
- 5-slot Chassis power supply (page 10-2)
- 5-slot Redundant power supply (page 10-3)

## 3-slot Chassis

The 3-slot Passport 4430 chassis uses a 135W AC power supply to provide power to the Ethernet Base Module and expansion modules.

**Note:** The three-slot Passport 4430 unit uses AC power only. There is no option for DC power.

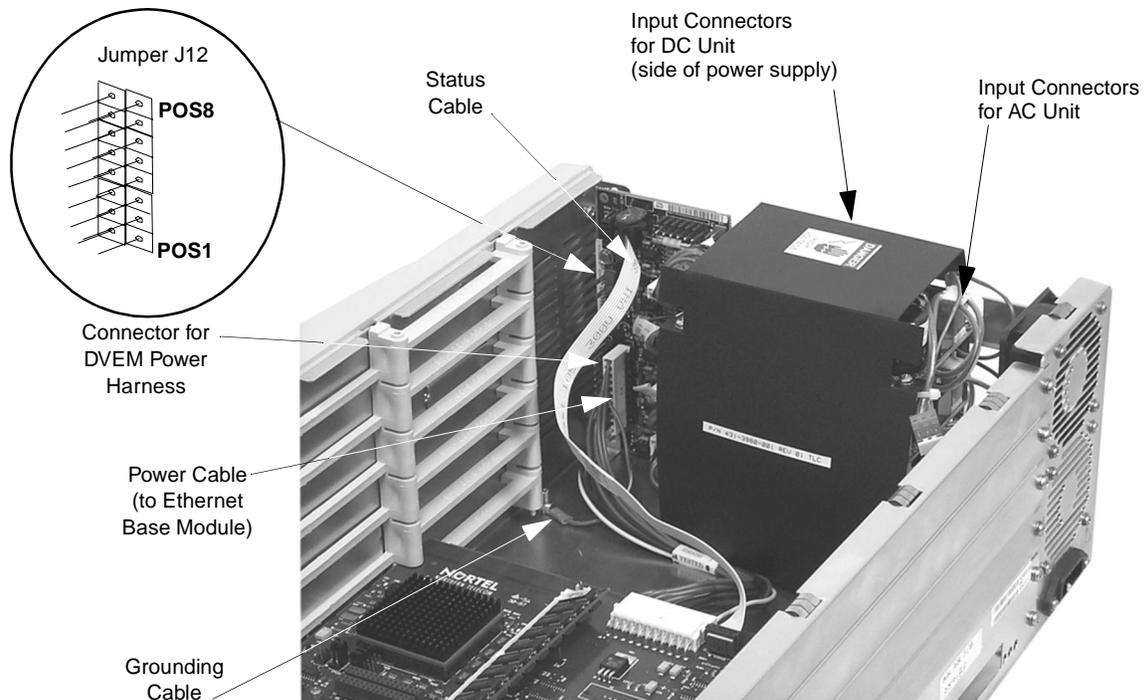


**Figure 10-1. 3-slot Power Supply**

The power cable connects to the Ethernet Base Module. All expansion modules in the unit draw power from the Ethernet Base Module through stacking connectors on the modules.

## 5-slot Chassis

The five-slot Passport 4450 chassis uses a 160W power supply to provide power to the Ethernet Base Module and expansion modules. Both AC and DC models are available; the figure below shows an AC unit.



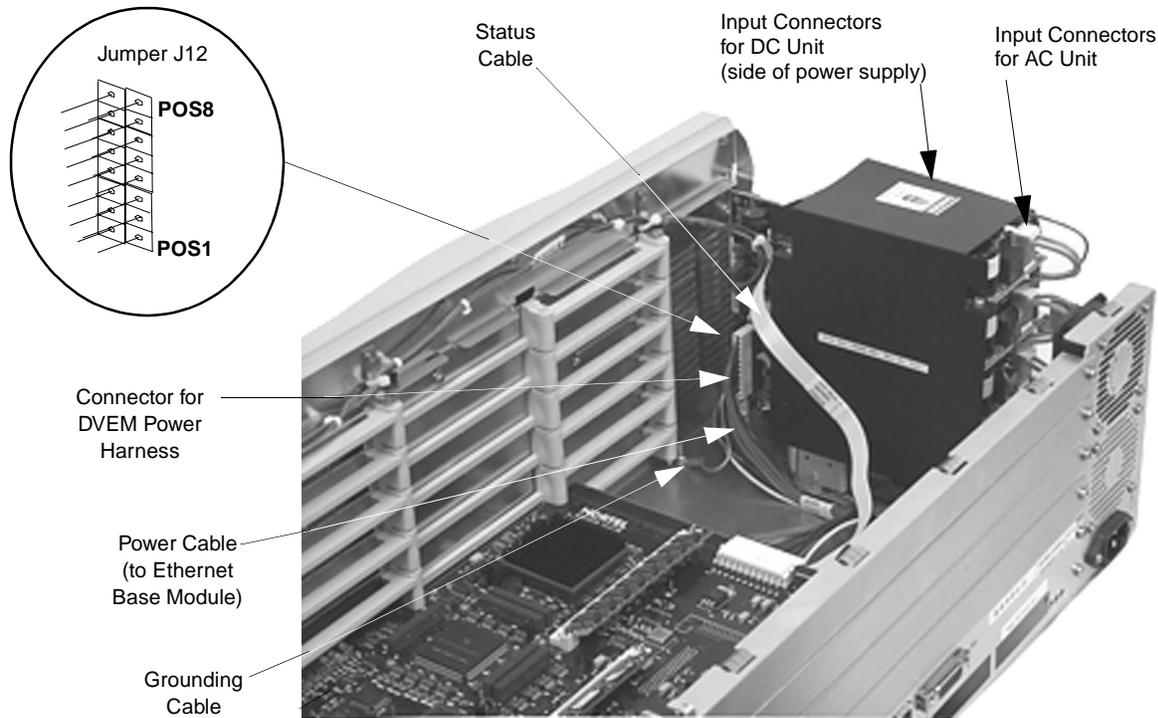
**Figure 10-2. 5-slot Passport 4450 Power Supply**

### Digital Voice Expansion Module Power Harness

The Digital Voice Expansion Module power harness provides redundant power for Passport 4450 units containing one or more Digital Voice Expansion Modules. The power harness connects the modules to the power sharing board (see Figure 10-2 above, and Figure 5-15 on page 5-14 for more information).

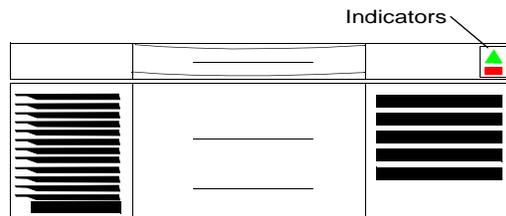
## 5-slot Chassis with Redundant Power Supply

A 5-slot Passport 4450 chassis with the redundant power supply option contains a subassembly that houses an extra power supply in the event that one of the original four fails. This unit is available in either AC and DC power; the figure below shows an AC unit.



**Figure 10-3. 5-slot Passport 4455 with Redundant Power Supply**

Two indicator lights that monitor the power supplies are located at the top right side of the front bezel. The triangle-shaped (green) indicator is lit when all power supplies are working properly. The rectangle-shaped (red) indicator lights up when there is a problem with one or more power supplies in the unit, or when too many power supplies are connected (see Table 10-1 on page 10-5).



**Figure 10-4. Indicators for Passport 4400 Unit with Redundant Power Supply**

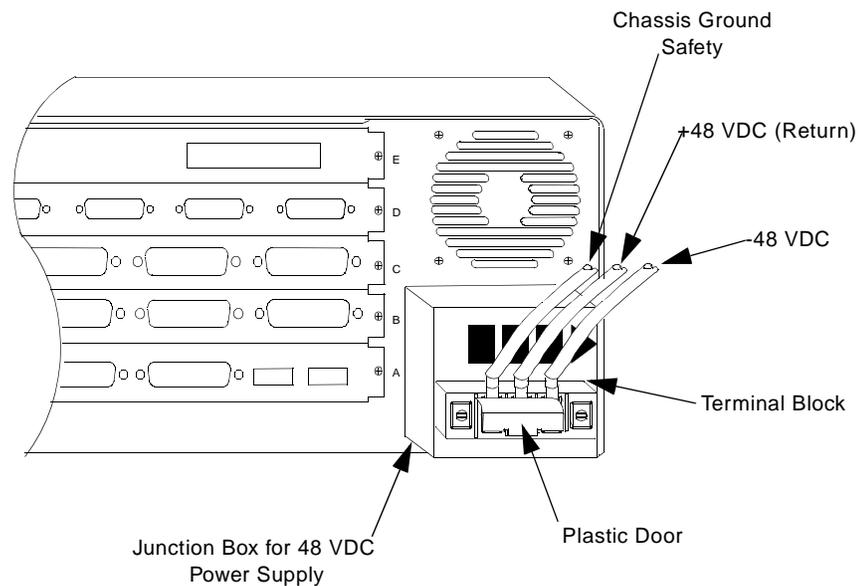
## DC Power Supplies

The DC power supply system allows the Passport 4400 unit to be installed in a telephone company environment with the necessary DC power input being furnished by the telephone company to the input of the Passport 4400 unit.

**Note:** The Input Connectors on the DC power supply are located at the side of the power supply closest to the edge (see Figure 10-2 and Figure 10-3).

The -48 volts DC version of the Passport 4400 unit power supply system is identical to the AC version except for the addition of a terminal power adapter that plugs into the line cord Electronic Industry Association (EIA) jack on back of the unit. The five power supplies stack identically to the AC version. The connectors accept the same cables for input and output power.

The DC input voltage must be within the range of -32 volts DC and 72 volts DC. The plus (+) and minus (-) markings on the input power adapter box indicate the polarity of corresponding battery connections. They are electrically floating and can either be connected to house ground or the appropriate DC return. An additional case ground screw is also on the power adapter box. This connection must be grounded to the chassis safety ground for safety and electrical noise suppression. Do not operate the unit without the ground screw connected to the safety ground.



**Figure 10-5. DC Power Supply**

## Configuring the Power Supplies

**Note:** The following information applies to five-slot Passport 4450 unit only. Three-slot Passport 4430 units do not need to be configured.

The power supply at the bottom of the stack is called the master supply. All other supplies located above the master are called slave supplies. The five-slot models have one master and three slave power supplies.



**Caution:**

Disconnect all power from the unit before performing these procedures.

The AC input connectors (orange in color) are located at the rear of the unit, behind the fan (see Figure 10-2 on page 10-2).

The DC input connectors (orange in color) are located at the outer side of the power supply (see Figure 10-2 on page 10-2).

If adding new modules to a unit, ensure that the power supplies are properly configured by following these procedures.

**Table 10-1 Configuring the Power Supplies**

For Units Containing...	Standard Power Supply	Redundant Power Supply	AC Units...	DC Units...
1-3 Modules including the base module.	Be sure that the AC/DC input connector of the top power supply is unplugged.	Be sure that the AC/DC input connectors of the top two power supplies are unplugged.	Strap jumper J12 according to Table 10-2.	Strap jumper J12 according to Table 10-3.
4-5 Modules including the base module.	Plug in all four AC/DC input connectors of the power supplies.	Plug in all five AC/DC input connectors of the power supplies.		

	<p><b>Caution:</b> Prior to turning on your unit, be sure to check the straps for proper positioning according to the particular unit you have. Incorrect strapping will cause the unit to malfunction.</p>
-----------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- Notes:**
- Jumper position one is strapped only when you have a redundant power supply installed. Notice for a 5-slot standard model that position number one is not strapped, regardless if it has 1 to 3, or 4 to 5 modules installed.
  - Jumper position six is strapped for all 5-slot models regardless of the number of modules installed.
  - Jumper position eight is for detecting failed power supplies. Make sure that position eight is NOT strapped for a 5-slot model with 4 to 5 modules installed. If position eight is strapped, then the unit can not detect if the fourth or fifth power supply fails. This strap is installed at the factory and needs to be removed when you add the fourth module.

**Table 10-2. Jumper 12 Strapping for the AC Units**

Passport 4400 Unit Model and Configuration	Jumper Positions (J-12)							
	1	2	3	4	5	6	7	8
5-slot standard, AC, 1 to 3 modules		X	X	X	X	X	X	X
5-slot standard, AC, 4 to 5 modules		X	X	X	X	X	X	
5-slot redundant, AC, 1 to 3 modules	X	X	X	X	X	X	X	X
5-slot redundant, AC, 4 to 5 modules	X	X	X	X	X	X		

**Table 10-3. Jumper 12 Strapping for the DC Units**

Passport 4400 Unit Model and Configuration	Jumper Positions (J-12)							
	1	2	3	4	5	6	7	8
5-slot standard, DC, 1 to 3 modules		X	X	X		X	X	X
5-slot standard, DC, 4 to 5 modules		X	X	X		X	X	
5-slot redundant, DC, 1 to 3 modules	X	X	X	X		X	X	X
5-slot redundant, DC, 4 to 5 modules	X	X	X	X		X		



Passport 4400  
Release Notes for R2.0.11

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