

Part No. 211571-D Rev 00
July 2004

600 Technology Park Drive
Billerica, MA 01821-4130

Passport 4400 Release Notes for Release 4.3.1



NORTEL
NETWORKS™

Copyright © 2004 Nortel Networks

All rights reserved. July 2004.

The information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Users must take full responsibility for their applications of any products specified in this document. The information in this document is proprietary to Nortel Networks Inc.

The software described in this document is furnished under a license agreement and may be used only in accordance with the terms of that license. The software license agreement is included in this document.

Trademarks

Nortel Networks, the Nortel Networks logo, the Globemark, Passport, and Preside are trademarks of Nortel Networks.

Adobe and Acrobat Reader are trademarks of Adobe Systems Incorporated.

Microsoft, MS-DOS, Windows, and Windows NT are trademarks of Microsoft Corporation.

Netscape and Netscape Navigator are trademarks of Netscape Communications Corporation.

Smart Modular Technologies is a trademark of Smart Modular Technologies, Inc.

SPARC and SPARCstation are trademarks of Sparc International, Inc.

Java, Solaris, Sun, and Sun Microsystems are trademarks of Sun Microsystems, Inc.

UNIX is a trademark of X/Open Company Limited.

Ethernet is a trademark of Xerox Corporation.

The asterisk after a name denotes a trademarked item.

Restricted rights legend

Use, duplication, or disclosure by the United States Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013.

Notwithstanding any other license agreement that may pertain to, or accompany the delivery of, this computer software, the rights of the United States Government regarding its use, reproduction, and disclosure are as set forth in the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19.

Statement of conditions

In the interest of improving internal design, operational function, and/or reliability, Nortel Networks Inc. reserves the right to make changes to the products described in this document without notice.

Nortel Networks Inc. does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

Portions of the code in this software product may be Copyright © 1988, Regents of the University of California. All rights reserved. Redistribution and use in source and binary forms of such portions are permitted, provided that the above copyright notice and this paragraph are duplicated in all such forms and that any documentation, advertising materials, and other materials related to such distribution and use acknowledge that such portions of the software were developed by the University of California, Berkeley. The name of the University may not be used to endorse or promote products derived from such portions of the software without specific prior written permission.

SUCH PORTIONS OF THE SOFTWARE ARE PROVIDED “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In addition, the program and information contained herein are licensed only pursuant to a license agreement that contains restrictions on use and disclosure (that may incorporate by reference certain limitations and notices imposed by third parties).

Nortel Networks Inc. software license agreement

This Software License Agreement (“License Agreement”) is between you, the end-user (“Customer”) and Nortel Networks Corporation and its subsidiaries and affiliates (“Nortel Networks”). PLEASE READ THE FOLLOWING CAREFULLY. YOU MUST ACCEPT THESE LICENSE TERMS IN ORDER TO DOWNLOAD AND/OR USE THE SOFTWARE. USE OF THE SOFTWARE CONSTITUTES YOUR ACCEPTANCE OF THIS LICENSE AGREEMENT. If you do not accept these terms and conditions, return the Software, unused and in the original shipping container, within 30 days of purchase to obtain a credit for the full purchase price.

“Software” is owned or licensed by Nortel Networks, its parent or one of its subsidiaries or affiliates, and is copyrighted and licensed, not sold. Software consists of machine-readable instructions, its components, data, audio-visual content (such as images, text, recordings or pictures) and related licensed materials including all whole or partial copies. Nortel Networks grants you a license to use the Software only in the country where you acquired the Software. You obtain no rights other than those granted to you under this License Agreement. You are responsible for the selection of the Software and for the installation of, use of, and results obtained from the Software.

1. Licensed Use of Software. Nortel Networks grants Customer a nonexclusive license to use a copy of the Software on only one machine at any one time or to the extent of the activation or authorized usage level, whichever is applicable. To the extent Software is furnished for use with designated hardware or Customer furnished equipment (“CFE”), Customer is granted a nonexclusive license to use Software only on such hardware or CFE, as applicable. Software contains trade secrets and Customer agrees to treat Software as confidential information using the same care and discretion Customer uses with its own similar information that it does not wish to disclose, publish or disseminate. Customer will ensure that anyone who uses the Software does so only in compliance with the terms of this Agreement. Customer shall not a) use, copy, modify, transfer or distribute the Software except as expressly authorized; b) reverse assemble, reverse compile, reverse engineer or otherwise translate the Software; c) create derivative works or modifications unless expressly authorized; or d) sublicense, rent or lease the Software. Licensors of intellectual property to Nortel Networks are beneficiaries of this provision. Upon termination or breach of the license by Customer or in the event designated hardware or CFE is no longer in use, Customer will promptly return the Software to Nortel Networks or certify its destruction. Nortel Networks may audit by remote polling or other reasonable means to determine Customer’s Software activation or usage levels. If suppliers of third party software included in Software require Nortel Networks to include additional or different terms, Customer agrees to abide by such terms provided by Nortel Networks with respect to such third party software.

2. Warranty. Except as may be otherwise expressly agreed to in writing between Nortel Networks and Customer, Software is provided “AS IS” without any warranties (conditions) of any kind. NORTEL NETWORKS DISCLAIMS ALL WARRANTIES (CONDITIONS) FOR THE SOFTWARE, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OF NON-INFRINGEMENT. Nortel Networks is not obligated to provide support of any kind for the Software. Some jurisdictions do not allow exclusion of implied warranties, and, in such event, the above exclusions may not apply.

3. Limitation of Remedies. IN NO EVENT SHALL NORTEL NETWORKS OR ITS AGENTS OR SUPPLIERS BE LIABLE FOR ANY OF THE FOLLOWING: a) DAMAGES BASED ON ANY THIRD PARTY CLAIM; b) LOSS OF, OR DAMAGE TO, CUSTOMER’S RECORDS, FILES OR DATA; OR c) DIRECT, INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), WHETHER IN CONTRACT, TORT OR OTHERWISE (INCLUDING NEGLIGENCE) ARISING OUT OF YOUR USE OF THE SOFTWARE, EVEN IF NORTEL NETWORKS, ITS AGENTS OR SUPPLIERS HAVE BEEN

ADVISED OF THEIR POSSIBILITY. The forgoing limitations of remedies also apply to any developer and/or supplier of the Software. Such developer and/or supplier is an intended beneficiary of this Section. Some jurisdictions do not allow these limitations or exclusions and, in such event, they may not apply.

4. General

- a. If Customer is the United States Government, the following paragraph shall apply: All Nortel Networks Software available under this License Agreement is commercial computer software and commercial computer software documentation and, in the event Software is licensed for or on behalf of the United States Government, the respective rights to the software and software documentation are governed by Nortel Networks standard commercial license in accordance with U.S. Federal Regulations at 48 C.F.R. Sections 12.212 (for non-DoD entities) and 48 C.F.R. 227.7202 (for DoD entities).
- b. Customer may terminate the license at any time. Nortel Networks may terminate the license if Customer fails to comply with the terms and conditions of this license. In either event, upon termination, Customer must either return the Software to Nortel Networks or certify its destruction.
- c. Customer is responsible for payment of any taxes, including personal property taxes, resulting from Customer's use of the Software. Customer agrees to comply with all applicable laws including all applicable export and import laws and regulations.
- d. Neither party may bring an action, regardless of form, more than two years after the cause of the action arose.
- e. The terms and conditions of this License Agreement form the complete and exclusive agreement between Customer and Nortel Networks.
- f. This License Agreement is governed by the laws of the country in which Customer acquires the Software. If the Software is acquired in the United States, then this License Agreement is governed by the laws of the state of New York.

Contents

Chapter 1	
Introduction	9
Upgrading to Release 4.3.1	9
New Software Upgrade Process	10
Troubleshooting	10
Software Distribution Web Site	10
Software and Documentation CD-ROM	11
Passport 4460 System Software	11
System Software Version Numbers	11
Mass Deployment and Reporting Tool	11
Install Tool	12
Network Management Support	12
Getting Started	13
Chapter 2	
New in This Release	15
Updated MDM Support	15
MDM Hoot and Holler Alarm Example	15
Telnet Client Support	16
traceroute Command	16
Miscellaneous Enhancements	18
Hoot and Holler Keepalive Mechanism	18
Hoot and Holler Traps	18
Enhancement to Hoot and Holler Calls	19
Busy Tone for Hoot and Holler Services	19
New Command to Set FXS Card	20
New Parameter for MAC Address Used by ARP	20
New Traps for Bandwidth and Slave CPU Utilization	21
Enhancement to Trap Thresholds	21

Chapter 3	
Issues Resolved and Known Open Issues	23
Issues Resolved in Release 4.3.1	23
Passport 4400 System Software	23
TCP Vulnerability Advisory	36
E&M Voice Modules	37
Passport 4400 and Passport 6400/7400 Interworking	37
Passport 4400 Mass Deployment and Reporting Tool	38
Known Open Issues	39
Passport 4400 Configurator	39
Passport 4400 Install Tool	40
Passport 4400 System Software	40
Xircom PCMCIA Ethernet Card	42
Passport 4400 and Passport 6400/7400 Interworking	43
Chapter 4	
Operational Notes	45
Flash Memory Card	45
Configurator	46
Install Tool	46
System Software Notes	47
ISDN BRI Voice Module	47
Configuring BRI As Master Clock	47
ISDN BRI Clock Source Selection	47
WAN Port IfType Value	48
Setting the IfType Value	48
Showing the IfType Value	48
General	49
SNA Services	50
Voice/Fax	50
Passport 4400 and Passport 6400/7400 Interworking	52
Obtaining Technical Bulletins	52

Chapter 5	
Interworking	53
Voice Interworking	53
Premium Voice	53
Passport 4400 and Passport 6400/7400 Interworking	54
Call Forwarding Limitation	54
High-Speed WAN Link Limitation	54
For More Information	55
Passport 4400 and Other Routers	55
Chapter 6	
Product Documentation	57
Documentation Web Site	57
List of Manuals	58
Passport 4400 Configurator Documentation URL Update	58
For More Information	59
Index	61

Chapter 1

Introduction

This document provides information about the Passport* 4460, Release 4.3.1, available for general customer release. The Passport 4460 is a part of the Passport 4400 series of products, which also includes the Passport 4430, Passport 4450, and Passport 4455.

This chapter of the Release Notes contains these topics:

- [“Upgrading to Release 4.3.1” on page 9](#)
- [“Software Distribution Web Site” on page 10](#)
- [“Software and Documentation CD-ROM” on page 11](#)
- [“Network Management Support” on page 12](#)
- [“Getting Started” on page 13](#)

Upgrading to Release 4.3.1

Passport 4400 units are shipped from the factory with the current software version and associated boot code pre-installed. Therefore, there is no need to install any software on a new unit.

The process of upgrading a unit running pre-4.3 software is described in the following paragraphs.

New Software Upgrade Process

Important: The process of upgrading Passport 4400 software via TFTP has changed, beginning with Release 4.2. The change is as follows:

- If you are currently running Release 4.1.3.4 (or later), you can directly upgrade to Release 4.3.1.
- If you are currently running any release *earlier than* 4.1.3.4, you must upgrade in two stages: first, upgrade to Release 4.1.3.4, then upgrade to Release 4.3.1.

Refer to Appendix B, “Downloading System Software” in *Getting Started with Passport 4460* (part number 209664-C) for detailed information about downloading and installing Passport 4400 software.

Note that there is no change in the upgrade process if you are using FTP (via the boot menu).

Troubleshooting

If you are running a software release earlier than 4.1.3.4 (such as 4.1.3 or 4.1.2), and you download the new Release 4.3.1 code via TFTP (using the **download base image specific** CLI command), you will receive a “Flash-Error.” The following message appears on the CLI screen:

```
CLI>TFTP sysBankErase: exp6chbin Image not
supported or .bld file is corrupted
```

At this point the CLI screen will freeze until you press the Enter key.

If you receive this error message, you must first upgrade to Release 4.1.3.4, and then upgrade to Release 4.3.1.

Software Distribution Web Site

To obtain Passport 4400 software, access the Nortel Networks Web site (www.nortelnetworks.com), then select Downloads from the Support area.

Software and Documentation CD-ROM

Passport 4400 units are shipped from the factory with the current software version and associated boot code pre-installed. The system software is also included on the product CD-ROM.

The following paragraphs identify the versions and formats of the current software.

Passport 4460 System Software

The Release 4.3.1 system software includes:

- bt431030.bld (R4.3.1 boot code loadable image)
- bt431030.bin (boot code binary format)
- pr431030.bld (application code)
- pr431030.tar (MIBs in tar format)
- pr431030.zip (MIBs in zip format)
- boot0_431030.bin (onboard boot0 image in binary format)
- boot0_431030.hex (onboard boot0 image in hex format)

System Software Version Numbers

The Release 4.3.1 system software versions are as follows:

- Boot Code Version: Passport_4460_Boot_Rel_4.3.1_Rev 0.3.0 07/27/04 19:06:41
- Application Code Version: Passport_4460_Appl_Rel_4.3.1_Rev 0.3.0 07/27/04 19:07:16

Mass Deployment and Reporting Tool

This version of the Mass Deployment and Reporting Tool supports Releases 4.0.x, 4.1.x, 4.2, 4.3, 4.3.1, and 5.2. The software version and executable name are:

- mdt1000039.exe (Version: Passport Mass Deployment and Reporting Tool R1.0 SCM Build 39 07/26/2004)

Install Tool

This version of the Install Tool supports Releases 3.1, 4.0.x, 4.1.x, 4.2, and 4.3.x. The software version and executable name are:

- it430001.exe (Version: Passport 4400 R4.3 Installtool 4.3 SCM Build 01 01/16/2003)

Network Management Support

The Preside* Multiservice Data Manager (MDM) network management platform provides device-specific support (MDM 12.2 and higher) for the Passport 4400 product line. The Preside MDM-Passport 4400 application lets you monitor and provision the Passport 4400 series of devices using MDM software. You use the Preside MDM-Passport 4400 application to:

- Receive alarms and state change information from Passport 4400 devices.
- Provision and download new software to Passport 4400 devices.
- Back up and restore Passport 4400 software.

In addition, you can access the Passport 4400 Configurator from the Preside Multiservice Data Manager (MDM) menus.

MDM supports the Passport 4400 using these tools:

- Passport 4400 Releases 4.0 and 4.1 are supported by Base MDM (the embedded DCD).
- For Passport 4400 releases higher than 4.1, a device integration (DI) cartridge must be loaded on top of Preside MDM. The current GA DI cartridge for Passport 4400 (V1.0.2) supports Passport 4400 Releases 4.0.x, 4.1, 4.2, 4.3, 4.3.1, and 5.2.
- MDM_Passport4400_Cartridge_V1-0-2_ac is now available to support Releases 4.3.x and 5.2. It includes support for Hoot and Holler traps “50042115 SET/CLEAR alarm.” See [“Updated MDM support” on page 15](#).

For detailed information about Preside MDM-Passport 4400 support, refer to the *Generic Device Integration Installation Guide* (241-6003-100) and the *Preside Passport 4400 Device Integration Cartridge User Guide* (241-6003-112).

The device integration cartridge, together with documentation and a support matrix, are available on <http://www.nortelnetworks.com>. Select Support, Software Downloads, then select Product: Preside Multiservice Data Manager Device Integration Cartridges.

Refer to <http://www.nortelnetworks.com/products/01/preside/> for more information about the Preside product portfolio.

Getting Started

Consult the following manuals when you set up a Passport 4460:

- *Passport 4460 Quick Start Guide* summarizes the tasks involved in the setup process.
- *Getting Started with Passport 4460* provides a comprehensive overview of the startup process.
- *Using Passport 4400 Install Tool* provides detailed information about setting up a management workstation.
- *Reference for Passport 4460 Hardware* provides detailed information about setting up the hardware.
- *Reference for Passport 4460 Cables* identifies the cables needed to set up the hardware.

For a list of all Passport 4460 documentation, see [Chapter 6, “Product Documentation,”](#) on page 57.

Chapter 2

New in This Release

This chapter describes new features and other enhancements supported by Release 4.3.1.

- [“Updated MDM Support”](#) on page 15
- [“Telnet Client Support”](#) on page 16
- [“traceroute Command”](#) on page 16
- [“Miscellaneous Enhancements”](#) on page 18

Updated MDM Support

Starting with MDM_Passport4400_Cartridge_V1-0-2_ac.tar, MDM has been enhanced to support Hoot and Holler traps “50042115 SET/CLEAR alarm” in Releases 4.3.x and 5.2. For more information, see [“Hoot and Holler traps”](#) on page 18.

MDM Hoot and Holler Alarm Example

```
MAJORSET 50042115 03-08-20 20:55:57 MPA/JOS EXP/2 T1/1 CHAN/1
ID: C24FFFE6 TYPE: communications CAUSE: outOfService
CO: Slave HOOTnHOOLER connection failed
RAW: oos
```

```
CLEARED CLR 50042115 03-08-20 20:56:07 MPA/JOS EXP/2 T1/1 CHAN/1
ID: C24FFFE5 TYPE: communications CAUSE: outOfService
CO: Slave HOOTnHOOLER connection recovered
RAW: insv
```

Telnet Client Support

This release of Passport 4460 software implements Telnet Client for in-band device management. Telnet Client is supported by the command line interface only (no Configurator support). The syntax for this command is as follows:

```
telnet <IPAddress>
```

The following considerations apply when you use the Telnet Client:

- Only one CLI session (console or Telnet) can be active on a Passport 4400. If Telnet client is active on a Passport 4460, this session is considered to be an open CLI session on that Passport 4460.
- You cannot use Telnet to connect to the local address of the Passport 4460.
- The Escape character is ^]. You can also execute the **logout** command to exit Telnet.
- If the destination is unreachable, the Telnet client will try to connect for approximately 25 seconds before it cancels the attempt and displays the following messages:

```
CLI>telnet 10.10.10.2  
Trying...  
Unable to connect!  
Connection closed.
```

traceroute Command

This release of Passport 4460 software implements the **traceroute** utility, which traces the route that an IP packet follows to another Internet host. The syntax for the **traceroute** command is as follows:

```
traceroute <IPAddress>
```

The **traceroute** utility uses the IP time to live (TTL) field and attempts to obtain an ICMP TIME_EXCEEDED response from each gateway along the path and an ECHO_REPLY response from the destination host. The utility sends probes with a TTL of 1 and increments the TTL by 1 until it either gets to the host, or reaches the maximum TTL. The default maximum TTL is 30 hops.

Two new options were added to the ping menu for **traceroute**. These options allow you to change the probe size and the maximum number of hops (the TTL) for **traceroute**. To display these parameters, choose option 5 and then 6 from the debug menu. The ping menu appears:

```
-----
Ping commands:
-----
<0> menu back
<1> Set Number of Ping Tries (current: 4)
<2> Set Ping Packet size (current: 64)
<3> Set Number of Maximum Hops (current: 30)
<4> Set Traceroute Probe size (current: 64 bytes)
<x> Exit Debug
Choice:
```

Three probes are sent at each TTL setting and a line is printed showing the TTL, the address of the gateway, and the round trip time (RTT) of each probe. If there is no response within a 8 second timeout interval, an asterisk (*) is printed for that probe. The **traceroute** command may be interrupted at any time by pressing CTRL-C key sequence. Following is an example of **traceroute** execution:

```
CLI>trace 216.109.117.106
Tracing the route to 216.109.117.106, 30 hops max, 5 bytes
packet size
 1  *      *      *      Request timed out
 2  *      *      *      Request timed out
 3   3ms   3ms   3ms   80.96.82.254
 4 562ms 329ms 329ms 212.93.128.1
 5 507ms 868ms 1289ms 62.231.127.130
 6  30ms  30ms  31ms 193.231.252.230
 7 150ms 138ms  59ms 62.67.36.137
 8 1487ms 999ms 127ms 195.122.136.161
 9 528ms 478ms 689ms 212.187.128.61
10 1317ms 1069ms 1178ms 4.68.128.102
11 1148ms 318ms 238ms 4.68.121.172
12 847ms 1518ms 1369ms 166.90.148.10
13 1077ms 1018ms 1259ms 216.109.120.207
14 1487ms 1468ms  *      216.109.117.106
```

Trace complete (Q00932261)

Miscellaneous Enhancements

The following sections describe various enhancements that are included in Release 4.3.1.

Hoot and Holler Keepalive Mechanism

This release of software includes a new Hoot and Holler keepalive mechanism. To accomplish this goal, two new values have been added for the `autoCallType` parameter under the `switchingProfile`: (Q00817734)

- `masterHootnHoller_keepalive`
- `slaveHootnHoller_keepalive`

These values enable the keepalive mechanism for the voice application level that makes the Hoot and Holler connections more reliable. Keepalive must be enabled on both master and slave sides of a voice Hoot and Holler connection.

The command used to enable the keepalive mechanism is:

```
set voice switchingProfile autoCallType
```

Parameter	Values
<Profile>	INTEGER (1..60)
<AutoCallType>	normal masterHootnHoller slaveHootnHoller masterHootnHoller_keepalive slaveHootnHoller_keepalive

Hoot and Holler Traps

Hoot and Holler traps are now sent properly when a connection goes up or down if the following conditions have been met: (Q00796404)

- The Passport 4460 has a trap subscription to the proper NMS.
- The Hoot and Holler traps feature is enabled. To enable this feature, execute the following command:

```
set voice HHtraps enable
```

Hoot and Holler traps are received as soon as Hoot and Holler SVCs are established or, once established, if the SVC goes down.

Enhancement to Hoot and Holler Calls

With this release of software, the Hoot and Holler slave will accept calls only from its Hoot and Holler master. If the ingress number on the slave side is not the same as the egress number of the master, then the Hoot and Holler connection does not come up. (Q00835711)

Busy Tone for Hoot and Holler Services

You can now configure the Passport 4400 to provide a fast busy tone when a Hoot and Holler line is down. The busy tone will be provided independent of whether auto ringdown (ARD) is enabled or disabled as long as the Hoot and Holler connection is not established (SVC down). (Q00849610)

The following new command allows you to enable or disable a fast busy tone on a per-channel case in the voice profile:

```
set voice profile hhBusyTone  
<Profile> : INTEGER (1..60)  
<HHBusyTone> : disable | enable
```

The default value for this command is “disable.”

With this release of software, you can also enable or disable grounding of the E lead when a Hoot and Holler channel is down. The E lead is unchanged if a Hoot and Holler connection fails or if the HHBlocking parameter is set to “enable.” The blocking CAS combination is sent on the T1/E1 interface if ARD is enabled and HHBlocking is set to “enable.”

The following new command allows you to enable or disable grounding of the E lead in the voice profile:

```
set voice profile hhBlocking  
<Profile> : INTEGER (1..60)  
<HHBlocking> : disable | enable
```

The default value for this command is “enable.”

New Command to Set FXS Card

You can now use the following command to set the FXS card as either loopstart or groundstart. (The Passport 4460 CLI reference contained this command, but the command was not available in the software.)

```
set voi profile FvmInterfaceType
```

There may be problems with distant equipment (FXO cards on PBXs) detecting an incoming call from the Passport 4460 due to the low ringing voltage supplied by the Passport 4460 FXS card. By default, the ringing voltage supplied is 40 VAC but, if necessary, you can increase the voltage to 50 VAC using the onboard jumpers J2, J3, J15, and J16. These jumpers must be placed on pins 2-3 for a 50 VAC ringing voltage. (Q00632661)

New Parameter for MAC Address Used by ARP

A new parameter called “PhysicalAddress” has been added to the following commands. This parameter specifies the MAC address used by ARP to learn a new entry.

- **show fr po svc circuit**
- **show fr po pvc circuit**
- **show fr po spvc circuit**

On frame relay, the physical address has a length of four bytes and can be used to identify the VCs that the ARP entries were learned by or to add a new static ARP entry. An ARP entry can now be mapped to the physical address of the SPVC connection; for example, you could enter the following command:

```
add arp e 2 10.10.10.10 00:00:00:01
```

Also, for SPVCs only, the group ID used for DLCI mapping is statically allocated. All ARP table entries are now saved and can be restored after you reset the Passport 4400. (Q00849609)

New Traps for Bandwidth and Slave CPU Utilization

This release of Passport 4400 software implements traps for SlaveCPUUtilization, SlaveRAMUtilization, and BandwidthUtilization. The thresholds are the same for master and slave sides (use the CLI command **set system threshold**). The bandwidth utilization threshold is set for LinkTxBWUtilization (use the CLI command **show system statistics**).

New MIB OIDs are as follows:

- Slave CPU:
 - Exceeded - 1.3.6.1.4.1.335.1.4.1.0.22
 - Clear - 1.3.6.1.4.1.335.1.4.1.0.23
- Master RAM:
 - Exceeded - 1.3.6.1.4.1.335.1.4.1.0.8
 - Clear - 1.3.6.1.4.1.335.1.4.1.0.16
- TxBw, Port2:
 - Exceeded - 1.3.6.1.4.1.335.1.4.1.0.24
 - Clear - 1.3.6.1.4.1.335.1.4.1.0.25
- TxBw, Port3:
 - Exceeded - 1.3.6.1.4.1.335.1.4.1.0.26
 - Clear - 1.3.6.1.4.1.335.1.4.1.0.27

NMS must use the updated MIBs to properly handle the new traps. (Q00820871)

Enhancement to Trap Thresholds

With Release 4.3.1, you can set a trap threshold for each WAN port independently. This enhancement is used when the GCM is configured in a mode other than default; it does not apply to WAN ports on expansion cards. (Q00874015)

The following commands have been changed to support this feature. (Each threshold can have a value from 0 through 100; the value 0 disables the threshold for the specific port.)

CLI>>**show system trap threshold**

```
cpuUtilThres      : 90
ramUtilThres      : 90
port1BwUtilThres  : 0    <-- default value; 0 is disabled
port2BwUtilThres  : 90
port3BwUtilThres  : 90
```

CLI>>**set system trap**

```
cpuUtilThres      <--- value between 1..100
ramUtilThres      <--- value between 1..100
port1BwUtilThres  <--- value between 0..100
port2BwUtilThres  <--- value between 0..100
port3BwUtilThres  <--- value between 0..100
```

Chapter 3

Issues Resolved and Known Open Issues

This chapter of the Release Notes includes these topics:

- [“Issues Resolved in Release 4.3.1” on page 23](#)
- [“Known Open Issues” on page 39](#)

Issues Resolved in Release 4.3.1

The following sections describe the issues resolved in Release 4.3.1.

Passport 4400 System Software

- In some cases, Passport 4460 units do not correctly initialize the two-port serial expansion cards. In such cases, at boot-up, even if the serial port is configured, the internal clock is not routed to that port.

This problem has been resolved by implementing corrections to the system boot code. (Q00611563)
- The Passport 4460 does not pass the correct off-hook signal from the called node to the calling node. If the Called Passport 4460 receives ABCD signal bits anything other than 1111 (decimal=15) from its locally attached PBX, then it does not pass the correct off-hook signal to the calling Passport 4460, thereby causing the calling Passport 4460 is to stay in network state = 9 (Waiting for remote user to answer the call). Consequently, the calling Passport 4460 will not transmit A bit high signal to its local PBX, and the end-to-end voice call cannot be established (which is network state = 13).

This problem has been corrected by modifying the Tie Trunk mask in order to use only the A bit (and not all A, B, C, D bits). (Q00545439)

- Qsig Progress feature does not appear to be implemented. When the remote extension is busy, the caller hears only silence for about 30 seconds before the disconnect is received.

The problem has been resolved. In order for the caller to hear the busy tone after the Progress message, the B channel must be activated. (Q00604156)

- Calls cut out when picked up before the ringback tone is heard. If a call is picked up before the ringback tone is heard, the parties to the conversation may not be able to hear each other during the conversation.

The problem has been resolved. (Q00532407)

- When issuing the **show port parameters table** command, the TxErrors statistics field displays an error. Note that this problem occurs only with HTDS cut-through; with HTDS store and forward, there are no errors.

This problem has been resolved. (Q00092096, 60337515)

- When issuing the **show wan port statistics table** command, the TXLinkUnderruns and TxLinkErrors statistics fields displays errors.

This problem has been resolved. (Q00092097, 60337519)

- The Passport 4460 does not send out Rollback feature related traps. There are four different traps for Rollback: mcmSysRollbackArmed, mcmSysRollbackDisarmed, mcmSysRollbackenabled, and mcmSysRollbackdisabled. According to those traps, a message should be sent out to the NMS station when the feature is enabled, disabled, or confirmed; however, NMS does not receive any of those traps

This problem has been resolved. (Q00497334)

- When setting up Hoot and Holler service between two Passport 4460 units with FXS modules in EXP1, the ringback tone heard in the headset is not present in port 4 of the FXS module on the slave side.

This problem has been resolved. Changes have been implemented to generate a ringback tone from the master side to the slave side in Hoot and Holler ARD configurations. (Q00613623)

- The DACS feature does not work with the 6-Port Serial Data Expansion Module.

This problem has been corrected. (Q00637712)

- The output level attenuation on the Passport 4460 works in the opposite way as that of the Passport 4450.

This problem has been resolved. Now the output level attenuation for Passport 4460 is the same as that of Passport 4450. (Q00543002)

- The Passport 4460 sometimes fails to boot the operating software.

The problem was found to be located in the initial setup of the cross-bus driver. This problem has been resolved. (Q00655672)

- When you set the time using an initial 0 (for example, **set sys time hour 09** for 9:00), the digit after the zero was ignored and the incorrect time was set.

This problem has been resolved. (Q00638437)

- When the FXS card on the Passport 4460 makes calls, one-way speech path is sometimes observed. After the first instance of one-way voice occurs, all subsequent calls are one-way until you reset the voice channel or press a DTMF tone on the affected FXS phone.

This problem has been resolved. (Q00666767)

- When two Passport 44xx devices are attached on the same segment with a default route configured, broadcast storms result.

This problem has been resolved. The Passport 44xx no longer forwards Layer 2 broadcast frames on the same link they came from. (Q00657696)

- When a Passport 4460 configured as a regional node is connected to a Passport 6400 through the primary link, and you switch to the backup link then back again to the primary link, the SVCUserDLCIState parameter in the switching map for the 6-port serial module is displayed as inactive when you execute the **sh fr sw map o t** command even though traffic is properly forwarded.

This problem has been resolved. (Q00603191)

- When a Passport 4460 configured as a regional node is connected to a Passport 6400 through the primary link, the switching map for the 6-port serial module cycles continuously when you execute the **sh fr sw svc c t** command. If you switch to a backup connection, the CLI freezes. Then if you switch back to the primary connection, the **sh fr sw map o t** command shows the SVCUserDLCIState as inactive.

This problem has been resolved. (Q00581826)

- After the redundant power supply is disabled and then reenabled, the status of the redundant power supply as reported by the **sh sys chassis** command is incorrect (that is, the status remains “fault”).

This problem has been resolved. (Q00687803)

- The UpTime and LastReset fields do not match when you execute the **show system restart**, **show system time**, and **show system admin** commands. In addition, when the uptime counter reaches 12 days, 12 hours, it resets to 0.

This problem has been resolved. (Q00692261, (Q00427865)

- When the E1/T1 link was experiencing any type of alarm condition, the CLI command **show voice channel status** displayed the DSPOperStatus parameter as pcmChannelNotInstalled. This status should only be displayed when the T1/E1 link is down (red alarm).

This problem has been resolved. When the T1/E1 link has an alarm indication other than a red alarm, the status of the DSPOperStatus parameter is now pcmChannelMinorAlarm in the output of the **show voice channel status** command. (Q00698977)

- In MPANL application information, the information element “mpaNodeName” ID value was misused.

This problem has been resolved. (Q00667563)

- If you attempt to configure parameters on WAN port IfIndex:159 with no card or an incorrect card in EXP1, the parameters on WAN port IfIndex:153 are changed.

This problem has been resolved. If you now try to edit parameters for an unallocated IfIndex (159, for example), you receive the message “Command Failed.” (Q00700603)

- When you use the **show port parameter** command to display the status of a Passport 4460 Ethernet card port, the LastChange field is incorrect. LastChange field should indicate the duration time since the last status change on the port.

The problem has been resolved. The LastChange field now displays how much time has elapsed since the port’s last status change. (Q00707227, Q00663104)

- The Passport 4460 does not provide busy tone if it times out after dial digit timeout expires. In a configuration with a TVM or EVM module connected to a PBX, with the dial digit timeout set to 3 seconds (default is 10 seconds) in the voice profile, if no digits are sent to the Passport 4460, the Passport 4460 will clear the E1 channel, but will not provide a busy tone. Although, if the first digit is sent, and then you let the timeout occur, the Passport 4460 will clear the channel and also provide the busy tone. This issue does not occur with Passport 4460 Analog FXS Voice module, nor does it occur with the 4430/4450/4455 running 4.0.3 code.

This problem has been resolved. Changes were made such that the Passport 4460 now provides a fast busy tone if no digits are dialled on the CAS interface. (Q00523793)

- Executing the command **save config update** affects CBR BERT traffic.

This problem has been resolved. (Q00713022)

- If you enter a password that has more than 50 characters, the Passport 4400 resets. If you enter a password between 28 and 50 characters long, you see messages on the console.

This problem has been resolved. (Q00717972)

- This enhancement request changes the way that the main Ethernet port works when the Passport 4460 is set to routing mode. Previously, the Ethernet port was always operating in promiscuous mode.

This enhancement has been completed. Now, when the Passport 4460 is set to routing mode, the Ethernet port operates in non-promiscuous mode. That is, in routing mode the Passport 4460 ignores packets that have destination MAC addresses other than its own. In bridging mode the Passport 4460 accepts all the packets. (Q00746257)

- In some circumstances, the Passport 4460 was reporting Frame Alignment errors when running CBR/Video and IP traffic simultaneously. This behavior was observed when the 6-Port Serial Data Module is installed in expansion port 1 and CBR/Video was running at 384 Kb/s.

This problem has been resolved. (Q00092131)

- DTR and RTS signals are on as long as the Passport 4400 is running. When an X.25 DTE sees devices with these signals “on,” it starts sending SABM to the Passport 4400. At that moment the Passport 4400 is not actually ready to receive information.

This problem has been resolved. Changes were made to control the remote side’s CTS pin when the node is not ready to receive. (Q00807270)

- After build 15 of Release 4.3, the Xircom card could not be pinged unless an E1/T1 voice card or a 6-port serial card was inserted in an expansion slot.

This problem has been resolved. (Q00821606)

- Sometimes the SPVC A-bit status remains inactive after resetting the unit due to a timing issue between the MLM and FRCM modules.

This problem has been resolved. (Q00799083)

- On a Passport 4460 unit with ISDN BRI modules, sometimes when you unplug the ISDN cable and then plug it in again or when you reset the unit, MPANL is not established; also, the LED remains amber after powering up the unit.

This problem has been resolved. (Q00797385)

- When a port on the 2-Port Expansion Module was set to a baud rate higher than 1024K, traffic degrades to below 800K.

This problem has been resolved. (Q00784023)

- In some cases, there were problems establishing Hoot and Holler service. When this occurs, the slave end DSPOperStatus remains in a “ProgressSwitchConnect” state.

This problem has been resolved. Hoot and Holler service works properly now. Hoot and Holler connections between various interfaces were tested, with no problems detected. (Q00796022)

- If you configured a Passport 4460 with an E1 expansion module and a 4-port E&M card, the unit could come up the DSPOperStatus of “dead.”

Starting with Release 4.3.1, you must upgrade both sides of a Hoot and Holler connection. Keepalive messages are now sent between master and slave sides; if one of them is not upgraded, the remote side will not receive this information and will bring down the voice channel. (Q00776904)

- If you configured Hoot and Holler in a back-to-back configuration with the Hoot and Holler connection between two FXS ports, calling from another FXS port to the slave port in the Hoot and Holler connection caused the Hoot and Holler connection to become unusable.

This problem has been resolved. The Hoot and Holler connection now stays on if another call is made on the slave port. (Q00156001)

- If a Hoot and Holler connection was set up on VoIP, the connection did not recover after the IP connection failed and was reestablished. Both channels, the local and the remote, needed to be reset manually.

This problem has been resolved. The Hoot and Holler connection now recovers on its own after an IP link failure, with no need for a manual reset of the channels. (Q00557592)

- In some cases, you were unable to make a local call from an E&M to a T1 interface. After dialing the E&M prefix, you get a tone. When you then call the T1 number, you get a tone but dialing a PBX subscriber fails: the dial tone remains. Note that if the manipulation string on the T1 number is set to i3000 (automatically calls a number in the PBX), the call is successful. A remote call from an E&M on another Passport 4400 to the same T1 is also successful.

This problem has been resolved. (Q00680942)

- In some cases, the Passport 4460 was unable to use two T1 cards simultaneously.

This problem has been resolved. (Q00806570)

- With a loopback plug connected to a T1 module, following a reboot, the Passport 4460 sometimes runs errors. Rebooting again resolves the issue.

This problem has been resolved by changing the method the framer is using for synchronization. (Q00802721)

- Provisioning an invalid IP address causes the device to hang. Resetting the node to the default configuration was required to force a reboot.

This problem has been resolved. An attempt to introduce an invalid IP address now results in a “command failed” message. (Q00808200)

- Passport 4460 - Passport 6400 frame relay switch SPVC could not start up automatically.

This problem has been resolved. (Q00786803)

- The Hoot and Holler keepalive enhancement is not working for local Hoot and Holler.

This problem has been resolved. (Q00821003)

- Sometimes, on the slave side of a Hoot and Holler connection, the “Remote Node Name” is not displayed when you issue the **show voice channel status** command; instead, some channels have the null string (“ ”) as the remote node name.

This problem has been resolved. (Q00829027)

- If the command **res sys voi all res** is issued quickly at Hoot and Holler master and slave side, not all Hoot and Holler connections come up.

This problem has been resolved. All Hoot and Holler connections are now established correctly after resets. (Q00827117)

- Cannot receive mcmFrPvcLmiLinkUp and mcmFrPvcLmiLinkDown traps.

This problem has been resolved. (Q00829077)

- Some Hoot and Holler connections failed to come up after resetting the Passport 4400 or after unplugging the T1 or E1 cable and then plugging it in again.

This problem has now been resolved. (Q00835183, Q00847285)

- After several successive channel resets, not all Hoot and Holler connections come up under the following conditions:

- Slave side remains up and connected but the SVC associated with it has been disconnected. When the master side tries to reconnect, the slave channel is found busy. Root cause of the error: SVC signaling and PUMP voice signaling are not properly handled in terms of arrival time.

- Channel gets connected with a slave channel other than the one assigned to it. The result is two voice channels that are in timeoutForceConnected state. Root cause of the error: switching from backup WAN link to the primary WAN link, the voice funnels are not deleted.

This problem has now been resolved. (Q00843732)

- Passport 4460 Primary MPANL failure. After resetting the node for upgrading the software, MPANL was established on the backup link. The error occurred for the 6K version more than for P7.0.11 (BG00SBB), and for the 7K version more than PCR 4.2.4. (Q00846634)
- When connecting to the node via Telnet, the Passport 4460 response is very slow. When you execute a command, it takes a few seconds to display one line of output. Master CPU usage remains 100%. (Q00843821)
- Under the FR switch map configuration, the frame relay path cannot be reestablished properly after you unplug and plug in the cable that is connected to the FRDCE port of the Passport 4460 on the slave side.

The problem is caused by an uninitialized variable used for the DLCI local switching feature. This problem has been corrected by proper startup initialization. (Q00869699)

- Compression was incorrectly negotiated when traffic was present on the SVC. Sometimes the messages used to negotiate compression were not sent due to full SVC funnel structure. Sometimes these messages were also compressed and could not be detected by remote side.

This problem has been resolved. (Q00716921)

- IP address in bridge mode was causing the Passport 4400 to freeze. The unit could not boot when the default IP address (192.168.200.200) was deleted and a new IP address 192.168.200.201 was added.

This problem has been resolved. The IP address for the Passport 4400 console must be on the same subnet as the bridge address but cannot be identical to the bridge address. The console address is now set to 0.0.0.0 if the bridge IP address is the same. (Q00814824)

- When switching from the primary to the backup link, the message “unable to build trap” was received.

This problem has been resolved. When switching from primary to backup (and back), the Passport 4460 is now sending the correct traps to the NMS. (Q00835744)

- When the command **reset system voice all reset** was executed, the message “unable to build trap” was displayed.

The trap for C_SNMP_TRAP_VOICE_DOWNLOAD_FAIL was not correctly generated. This problem has been resolved. (Q00827357)

- It was not possible to enable voice signaling debug for a single voice channel. This problem has been resolved. You can now enable **vs vsigtest** voice signaling debug for a single voice channel by entering the following command at the login prompt. (Q00835857)

vs vsigtest ch func

ch: Logic Channel Number or All;

func:on = vsigtest On, off = vsigtest Off)

For example, enter this command:

vs vsigtest 0 on

- Passport 4460 node freezes after OSPF flooding of approximately 400 routes. Turning the device off then on again cleared the problem.

This problem has been resolved. The allocated buffer size was always 512 octets. Whenever a large number of OSPF LSs were sent, the allocated buffer was exceeded. The buffer allocation routine was corrected. (Q00862197)

- The Passport 4400 can crash when “acceptKnown” is used for the ISDN WAN. This problem has been corrected by proper variable initialization. (Q00833791)

- Even if you set the DaylightSavingTime parameter to “disable,” this parameter is enabled whenever the Passport 4460 is rebooted.

This problem has been resolved. (Q00879372)

- The “OperStatus” of the ISDN BRI interface remains down. The “OperStatus” of IfIndex 5 and 153 is related to the status of Port 2 in MDM. Therefore under this situation, MDM generates a SET proxy alarm when getting an SNMP response for IfIndex 5 and generates a CLR proxy alarm when getting an SNMP response for IfIndex 153 during the state polling. The state polling interval is 5 minutes by default. The system must be rebooted to resolve this problem.

This problem has been resolved. (Q00563919)

- The SVC state was not updated when a trunk failed; that is, the status of the SVCUserState parameter remained “active.”

This problem has been resolved. The SVC state is now properly updated when a DISCONNECT message is received. (Q00876563)

- The following VoIP issues were identified:
 - File descriptors must be released for every initiated shutdown.
 - Closing procedure for TCP connection has been changed to be in compliance with RFC 793:

```

TCP A      TCP B
1. ESTABLISHED ESTABLISHED
2. (Close) FIN-WAIT-1 --> <SEQ=100><ACK=300><CTL=FIN,ACK> --> CLOSE-WAIT
3. FIN-WAIT-2 <--- <SEQ=300><ACK=101><CTL=ACK> <--- CLOSE-WAIT
4. (Close) TIME-WAIT <--- <SEQ=300><ACK=101><CTL=FIN,ACK> <--- LAST-ACK
5. TIME-WAIT --> <SEQ=101><ACK=301><CTL=ACK> --> CLOSED
6. (2 MSL) CLOSED

```

- When accepting a new connection, VoIP daemon failed to set keepalive parameters.
- An infinite loop situation kept the CPU loaded 100%.

These problems have been resolved. (Q00890090)

- After you reset the Passport 4460 to the factory default configuration and reboot it, the device hangs up in a few minutes if the ISDN BRI cable on WAN port 2 is connected to the leased line and the BRI port is up with signaling mode active.

This problem has been resolved. (Q00876572)

- ToS system filters were erroneously being applied to local management traffic. After you created such a filter, saved the configuration, and rebooted the Passport 4460, you could no longer log in to the Passport 4400.

This problem has been resolved. (Q00895186)

- Voice speech frames do not pass for several seconds after a DTMF tone is received if dtmfToneDetector is enabled. This problem was observed with two Passport 4400 devices in a back-to-back configuration, each equipped with two full T1 voice cards. All 48 voice channels on one Passport 4400 are connected to the other Passport 4400 using Hoot and Holler connections. (Q00856109)

- Initial state for Hoot and Holler traps is “Unknown.”

This problem has been resolved. The default value of the HHTrap parameter is now set to “disabled” when upgrading from a software version where Hoot and Holler is not contained. (Q00856093)

- Passport 4460 did not respond to SNMP polls, causing a fault alarm and a lockup of CLI device access.

This problem has been resolved. (Q00573706)

- ISDN backup link shows the physical layer active after a failed connection. This problem has been resolved. (Q00554016)

- When you created an IP traffic filter that included a wildcard character for protocol or port number, the filter did not work.

This problem has been resolved. (Q00570781)

- When using Passport 4460 VoIP over RFC 1490 prioritization in a back-to-back configuration of Passport 4460 units, phone calls went through normally in both directions following a reboot of both units. But if you reset only one of the units, the first two attempts at making a call failed. The calls would go through normally after this.

This problem has been resolved. The calls go through normally after resetting one unit but it takes about 10 seconds until the FXS card initializes. (Q00478908)

- If the Redundant Power Supply Unit (RPSU) fails, the Passport 4400 sends both SET 5004E101 and CLR 09990013 alarms every minute. In addition, the state of the Power 2 component is not accurately displayed.

This problem has been resolved by implementing a “clear power supply failure” trap that is sent when the (redundant) power supply is back in a normal operational state. (Q00541920)

- Passport 4460 ports that were configured for the SDLC role of “secondary” failed to display any value for the IfIndex port numbers in the **sh sna sdlc st p t** command. In addition, when this occurred, the table continued to scroll until the Q (quit) character was entered. The same command displayed the IfIndex port numbers properly for Passport 4460 ports configured for the SDLC “primary” role.

This problem has been resolved. SDLC statistics are now displayed properly for all ports. (Q00092106, 60337811)

- The **sh sna sdlc link o t** command displays the link state as being disconnected even though the SNA traffic is moving successfully.

This problem has been resolved. When a connection is established, the **sh sna sdlc link o t** command correctly displays the link state as “connected.” (Q00416143)

- When the Passport 4460 is configured as a central or branch node and the ISDN BRI cable is unplugged and plugged in again, the color of the WAN port status indicator remains unchanged.

This problem has been resolved. Whether the Passport 4460 is configured as a central, branch, or regional node, the WAN port status indicator changes color correctly when the BRI cable is unplugged and plugged in again.

(Q00566565)

- When the PCMCIA card is configured on the Passport 4460, it reports back as “alive” even when the card is physically removed.

This problem has been resolved. Ping does not work if the PCMCIA card is removed. In addition, the PCMCIA card is removed from the IfTable after a few seconds. (Q00576461)

- On some Passport 4460 units, the system time was not incrementing.

This problem has been resolved. The system time now increments properly. (Q00596783)

- When the Passport 4400 was configured as a regional node, issuing the CLI command **sh fr po spvc c t** caused the CLI to freeze.

This problem has been resolved by implementing changes to avoid loopbacks for the following commands: **sh fr po spvc c t**, **sh fr sw c t**, and **sh fr voice svc c t** commands. (Q00581786)

- The software map **fr sw m ht ds cut-through** does not come up after the slave is restarted.

This problem has been resolved. Restarting a Passport 4400 with traffic on it no longer affects the software map. (Q00656908)

- After a restart, the software map **fr dce fr sw map** does not come up for the third port on the 6-port expansion card.

This problem has been resolved. Restarting a Passport 4400 with traffic on it no longer affects the software map. (Q00417748)

- An NMS connection was configured for a Passport 4460 network, with HP OpenView as the connection manager on the NMS PC. If SNMP v2 requests are received on the Passport 4460, the following message is displayed on the console:

```
Login: wrong version
wrong version
wrong version
```

The message has been changed to “Received a wrong version SNMP packet (version: <version_of_received_SNMP_packet>”. (Q00659620)

- The output of the **show filter ip for sys c t** command is displayed continuously for forward IP filters with an IP address of 0.0.0.0.

This problem has been resolved by disallowing the use of null forward system filters. (Q00626824)

- RFC 1490 link could not be properly deleted from a six-port serial module.

This problem has been resolved. An RFC 1490 link can now be properly deleted. (Q00632368)

- A command was required to display information about the cards in physical ports 2 and 3.

This problem has been resolved. The new command **sh system basecards** has been implemented to display information about the cards placed in physical ports 2 and 3. (Q00640770)

TCP Vulnerability Advisory

- Passport 4400 Release 4.3.1 includes fixes to address TCP vulnerabilities (described in NISCC Vulnerability Advisory 236929). The vulnerabilities identified in this advisory could potentially allow denial of service attacks; that is, it was possible for a network hacker to reset an established TCP session on a Passport 4400 if the unit received a TCP packet with an RST or SYN flag and a sequence number within the TCP window. (Q00862319)

E&M Voice Modules

- Occasionally, the DSPs on a four-port E&M module go into, and remain in, a “Dead” state.

This problem has been resolved by implementing a recovery procedure to reset the DSP if a channel enters a “dead” state. Note that a DSP corresponds to two voice channels. Therefore, a DSP reset is actually resetting two voice channels (the dead channel and its “DSP pair”). (Q00549722)

- In a configuration with two Passport 4460 devices with E&M equipment at each end, when a call is placed, the following sequence of actions transpires:

- 1 Phone 1 calls phone 2.
- 2 Phone 2 rings without being picked up; PBX 1 will ground the M lead attached to the passport 1.
- 3 Passport 2 will receive signal, and signal to PBX 2 by grounding the E lead on Passport 2.
- 4 End user on phone 1 will hear ringing of phone 2.
- 5 At this point the E lead on Passport 1 will signal (ground) to PBX 1.

Step 5 should not happen because the full call has not been established yet. Phone 2 will still be ringing when the E lead goes to ground.

This problem has been resolved. The E&M leads now work properly. (Q00517320)

Passport 4400 and Passport 6400/7400 Interworking

- When a Passport 6400 has a V.35 port with a frame relay DLCI connected to a Passport 4400 and you lock and unlock the frame relay UNI and the V.35 port on the Passport 6400, the DLCI on the Passport 4400 is in an active state, but no frames are transmitted. You must reset the Passport 4400.

This problem has been resolved by modifying the LMI module to update the state of the DLCI. (Q00873334)

Passport 4400 Mass Deployment and Reporting Tool

- At the top of each page of the report file, you will now see the software release and configuration version.
- The MDT Reporter did not extract the egress table for the Passport 4460 correctly.

This problem has been resolved by disabling the option “CLI Output 4460 Style” when MDT is connected to a Passport 4460. (Q00688822)

- The MDT Reporter did not extract the global circuit manager (GCM) link table values correctly.

This problem has been resolved. (Q00811192)

- The MDT could not extract the new commands related to Hoot and Holler.

This problem has been resolved. The MDT has been enhanced to extract these new voice Hoot and Holler commands: (Q00876119, Q00915264)

```
- set voice switchingProfile autoCallType
  masterHootnHoller_keepalive/slaveHootnHoller_keepalive
- set voice HHTraps enable/disable
- set voice profile hhBusyTone
- set voice profile hhBlocking
```

- Installation of MDT Reporter on a PC failed due to wrong Java version when JRE Version 1.1.x was already installed on the PC.

This problem has been resolved by modifying the MDT installer to properly set the Windows registry keys for JRE. (Q00850308)

- The MDT Reporter did not extract the list of hardware modules installed on the Passport 4400 when it created the configuration script.

This problem has been resolved. The MDT Reporter now generates a list of hardware modules installed on the unit. (Q00915373)

- The MDT Reporter extracted the wrong SPVC discard priority. For example, the configuration command was **def fr port spvcLANData svc discardPriority 1 high**, but MDT extracted the command as follows: **def fr port spvcLANData svc discardPriority 1 low**

This problem has been resolved. The MDT Reporter now extracts the correct SPVC discard priority. (Q00947639)

- The MDT Reporter did not extract ARP static entries correctly.
This problem has been resolved. All ARP static entries are (Q00949697)

Known Open Issues

The following paragraphs describe the known open issues in this release, organized by these categories:

- [“Passport 4400 Configurator” on page 39](#)
- [“Passport 4400 Install Tool” on page 40](#)
- [“Passport 4400 System Software” on page 40](#)
- [“Xircom PCMCIA Ethernet Card” on page 42](#)
- [“Passport 4400 and Passport 6400/7400 Interworking” on page 43](#)

Passport 4400 Configurator

- The Passport 4400 Configurator provides only a limited set of SNA statistics (SDLC Link Station Statistics and SDLC Port Statistics). You can use the CLI `show sna switching circuit` commands to obtain additional statistics and status for SNA links. (60331288)
- The default Documentation URL specified in the Configurator is no longer correct. As a workaround, you can change it to point to either the Passport 4400 Documentation Web site, or the location where you have installed the documentation. For more information, refer to [Chapter 6, “Product Documentation,” on page 57](#). You can also find a description of this process in the Configurator online Help: access the Documentation URL page from the Administrator menu in the Configurator, then select About This Page.

Passport 4400 Install Tool

- Invalid entries entered through the X.25-Annex G or SNA 1490 dialog panels may cause incomplete configuration for the feature. (60334618, 60334681)
- All ports on Passport 4460 Dual and Quad E&M modules must be of the same type (E&M Type I, II, or V) and cannot (due to hardware limitations) be individually configured for different types. However, Install tool allows you to select different types for individual ports on a card. The selection cannot take effect, however, because all ports on the card must be the same type. (Q00133466)

Passport 4400 System Software

- Passport 4460 CLI not working after a software upgrade but other services are still working. (Q00819483)
- When upgrading from Release 4.1.2 to Release 4.2, and after downloading the boot code and viewing the image with option 1 on the boot menu, an “image corrupted” message is displayed. This is a false error message that appears because the 4.1.2 boot code does not correctly detect the 6-port serial data module alpha and beta images. Beginning with Release 4.1.3.4, a software upgrade will not display this message because a correction was made in the flash memory software. Refer to [“New Software Upgrade Process” on page 10](#) for a description of the revised software upgrade process. If you follow this process, the error message should not occur. (Q00092116)
- The **show fr line dlci table** reports information incorrectly on channel bundles. (60324201)
- Unit resets when X.25 traffic is present due to streams running out of buffers when attempting to establish 96 SVC connections. (60330743)
- Unit reset may occur with more than six channel bundles configured as “casBypass”, or with more than one channel bundle configured as “bypass”. Only use one channel in a bundle for CAS per T1/E1 voice expansion slot. (60332364)
- The values, NegRxThroughput and NegRxBurstSize, are not reported properly on LAN SPVCs. (60332794)
- Unit may reset due to improper flow control of switched AOT traffic through a central node. When the Passport 4460 is configured as a “Regional Node,” flow control works normally. (60332800)

- The “set port admin 150 down” command resulted in a “Command Failed” response (it took approximately 10 seconds), and afterwards, any other command executed (such as “show wan pa po o t”) causes a client time-out in approximately 60 seconds. The node lockup portion of this problem has been fixed. However, the command itself has been disabled and has no effect. (60332408, 60334795)
- Unit does not prioritize traffic properly with 1500-byte packets on the LAN SVC. (60335184)
- With a # in the manipulation string of the egress table, the Passport 4460 should forward the dialed DTMF digits, but does not. (60335277)
- CCS Bypass with one bundle of multiple time slots fails. The number of time slots supported by one bundle without running into problems is limited to three to four time slots. This is without any other services. Once the number of time slots increases, CPU utilization increases significantly resulting in calls dropping. (60335288)
- AOT fails to pass traffic on a 2-Port Serial Data Expansion Module (installed into either expansion slot) through a network (Passport 6400) set for PANL. (Q00092081, 60334715)
- When you issue the **show voice channel** command, the network connection status field for the BRI Voice module is blank if the module is physically disconnected. For example:

```
PP4460>>sh vo ch t

CardNumber           : exp1
ChannelNumber        : 1
InterfaceType        : isdn-bri
DSPOperStatus        : idle
NetworkConnect       :
RemoteChHWType       : ""
```

The status value should be “idle”. (Q00102265)

- The **show isdn physicalif basicrate operational table** command fails to display any information. (Q00102443)

- The **show system statistics** command reports bandwidth utilization only for Port 2 and Port 3 PANL links. In the particular case where PANL is active on both ports, the show command displays bandwidth utilization for port 3 only. The values displayed will be reported in LinkTxBwUtilization and LinkRxBwUtilization. For all other ports, the correct Tx and Rx bandwidth utilization statistics per port can be viewed by using the “show wan stat port table” command. (Q00106746)
- The Passport 4460 Wink Start on Hoot and Holler interworks with Passport 4430/50 units. However, it works for wink-to-wink only; wink-to-non-wink protocol or Q.421 will not work. This works the same as the setup between a Passport 4430/50 and a Passport 4430/50. The Passport 4460 to Passport 4460 setup does not have this limitation. All protocols and hardware interface types can talk to each other on Hoot and Holler, as well as switch calls. (60330060)
- If the PCMCIA Ethernet port or the build-in Ethernet port of a Passport 4460 is cross-connected to an auto-sensing device, the two devices are unable to communicate with each other (although they can still ping each other). Until an enhancement is available, it is suggested that one or both of the following workarounds be used:
 - Lock the Ethernet speed on the other device to 10 Mb/s.
 - Install a 10/100 Mb/s hub and install both devices on it. (60325766)
- A Passport 4460 with an installed 6-port serial data expansion module will hang after multiple resets. A workaround is provided to account for this: a self restart of the box will reinitialize the module. (Q00527983)

Xircom PCMCIA Ethernet Card

- The Xircom PCMCIA Ethernet port does not work correctly at 100 Mb/s. Connecting a PCMCIA Ethernet port to a 100 Mb/s hub or directly (with a crossover cable) to a PC with a 100 Mb/s Ethernet adapter, the LAN Link Integrity LED is always red. In this case a ping from the Passport 4460 to the PC does not work, the status of the Ethernet port in the CLI (ifIndex = 5) is down, and the packets are discarded by the Ethernet driver because the link is down (although a ping from the PC to the Passport 4460 does work). In this case the Ethernet driver does not report that link is down even if in the CLI the port is down. In the case of a 10 Mb/s hub the LAN Link Integrity LED is always green and the pings are working fine in both directions. The problem was also found in Releases 4.1.3 and in 4.1.0. (Q00172160)

Passport 4400 and Passport 6400/7400 Interworking

For more information about Passport 4400 and Passport 6400/7400 interworking, see [Chapter 5, “Interworking,” on page 53](#).

- Fax traffic between Passport 6400 PRI and Passport 4460 BRI TE mode yields low completion rates when the fax call originates from an MVP or MVPE card (10372023).
 - MVPE to Passport 4460 yields a 75 percent completion rate (a Canon Model B 340 is the destination machine).
 - MVP to Passport 4460 yields an 81.3 percent completion rate.
 - Passport 4460 to MVPE or MVP yields a 100 percent completion rate with Passport 6400 version 7.03.
- BRI fax calls from Passport 6400 (NT or TE mode) to Passport 4460 fail. The MPS and MCF signals are repeated two to three times after the transmission of each page. If the direction of the call is reversed, however (that is, the call originates at the Passport 4460 going to the Passport 6400), then there are no errors or repeated signals. (60329391)
- The Lost Control Frames statistics counter for voice channels will register for Passport 4460 to all other Passport 4400-series units. It will not register for Passport 4460 to Passport 6400 units. (60329976)
- The Call Forward feature on the Passport 4460 did not function from an external number. This has been partially corrected and the following list shows which functionality is supported and which is not:
 - Passport 4400 to Passport 4400 - supported
 - Passport 6400 to Passport 6400 - supported
 - Passport 4400 to Passport 6400 - supported
 - Passport 6400 to Passport 4400 - NOT supported(60329975)
- ISDN Generic Functions (GF) Path Replacement was not working properly between the Passport 4400 and Passport 6400. Corrections to Passport 4400 Path Replacement and Call Diversion have been implemented to increase the length of Pump messages to allow long messages to pass through PANL links. However, an equivalent implementation is still required on the Passport 6400. (60332649)
- Unable to correctly negotiate G.711 calls initiated by the Passport 6000/7000 to Passport 4460. (60334509)

- The X.21 interface on the Passport 4460 does not currently support the “DTE Signal Element Timing” signal. Refer to [“Passport 4400 and Passport 6400/7400 Interworking”](#) on page 52 for more information. (60335312).

Chapter 4

Operational Notes

This chapter contains operational notes for the following topics:

- [“Flash Memory Card” on page 45](#)
- [“Configurator” on page 46](#)
- [“Install Tool” on page 46](#)
- [“System Software Notes” on page 47](#)
- [“Voice/Fax” on page 50](#)
- [“Passport 4400 and Passport 6400/7400 Interworking” on page 52](#)
- [“Obtaining Technical Bulletins” on page 52](#)

Flash Memory Card

The Passport 4460 uses a Smart Modular Technologies, Inc.* (Centennial) Linear Flash PC Card (16 MB). Note that, unlike the flash memory cards used with BayRS and Passport 2430/5430 products, this card does not support external file manipulations (such as list, delete, compress, and write). Also, the Passport 4460 does not support standard ATA flash memory cards.

For more information about the Passport 4460 flash memory card, consult the guide *Configuring and Operating the Passport 4400* (part number 206916-D, provided in PDF and HTML format on the product CD and on the Web). Or, launch the Passport 4400 Configurator, select Code Bank from the Administration menu, then click on “About This Page.”

Configurator

This section provides operational notes about the Passport 4400 Configurator.

- Before you start the Passport 4400 Configurator, make sure that “cookies” are enabled in your Web browser (refer to your browser documentation).
- Changing the IP address of the unit without changing the PC dial-in IP address for the PPP (Point-to-Point Protocol) over management port functionality may prevent access to the Configurator or the Install Tool. For a description of IP address usage in bridging and routing environments, see Appendix C of the guide *Using Passport 4400 Install Tool*.

Install Tool

This section provides operational notes about the Passport 4400 Install Tool.

- CSU and ISDN WAN ports only allow switching. A serial WAN port, if not configured as either primary or backup, will allow additional protocol selections. Otherwise only switching is allowed. (50338043)
- Several enhancements to SNA support are planned for a future release. These include the following:
 - The ability to configure Switched Node Virtual Segment size. (60318864)
 - The ability to remove the defaulted MAC (Media Access Control) and SAP (Service Access Protocol) addresses. (60318203)
 - The ability to configure SNA over Multi-Point. (60318863)
- Install Tool now supports the configuration of X.25 or SNA over channelized T1/E1 PANL or RFC 1490 links. From a non-primary and non-backup WAN serial port, launch the configuration dialog panel. Select X.25 or SNA from the protocol selection panel, apply, and verify that the X.25-Annex G panel or SNA 1490 panel works properly. (60322195)

Note that invalid entries entered through the X.25-Annex G or the SNA 1490 dialog panel may cause incomplete configuration of the feature. (60334618, 60334681)

System Software Notes

This section provides operational notes about Passport 4400 system software.

ISDN BRI Voice Module

This section provides operational notes about the ISDN BRI voice module.

Configuring BRI As Master Clock

To configure the system master clock to be the BRI card in EXP1 or EXP2, IfIndex 159 or 183 should be used. However, when listing System IfIndexes, these two IfIndexes do not appear on the list. With the 2-port serial data expansion module and the E1 voice module, these IfIndexes do appear.

You can use IfIndexes 159 and 183 for clock sync purposes (master clock setting) even though these are not displayed for BRI voice cards. If you want EXP1 to provide the clock, enter the **set sys mas 159** command when you specify the master clock source. Any card (voice, T1/E1/ISDN BRI, serial) can be installed in the expansion slot. The same is true for EXP2, except that you use IfIndex 183. (Q00092053)

ISDN BRI Clock Source Selection

Because both ports of a 2-port BRI Voice Module (BVM) on the Passport 4460 share one TDM interface internally, a single clock source must be used as the primary clock for internal operations.

When one of the ports is configured for TE mode, that port is selected as the primary clock source. When both ports are configured for TE mode, the first port is selected as the primary clock source, but the second port still receives clock from trunk to terminate the external interface.

The following table lists the effective primary clock source depending on the mode of operation of each port of a 2-port BVM.

Operation mode: Port1 - Port2	Primary clock source for internal operation	Resulting clock source for Port1	Resulting clock source for Port2
NT - NT	Internal/backplane	Internal/backplane	Internal/backplane
NT - TE	From Port2	From Port2	External trunk on port2
TE - NT	From Port1	External trunk on port1	From Port1
TE - TE	From Port1	External trunk on port1	External trunk on port2

WAN Port IfType Value

Following is a clarification of the effects of setting the WAN port IfType value, as well as an explanation of the messages generated by these commands.

Setting the IfType Value

This section provides operational notes about setting the WAN port IfType value.

- You can use the **def wan port ifType** command to set the IfType value whether or not you have a cable connected to the port. To apply the value that you set, you must issue a **save** command before you reset the unit.
- If the Passport 4460 is booted with a cable plugged in, the specific port operates according to the cable type. (At boot time, the unit detects the type of cable that is plugged in and configures the port according to this information. In this case, the value stored in flash memory has no effect.)
- The **def wan port ifType none** command has no effect.

Showing the IfType Value

This section provides operational notes about showing the IfType value.

- The **show wan parameter port configured** command displays the interface type of the cable that is connected. If no cable is connected, this command displays the value **none**.
- The **show wan parameter port operational** command shows how the port is currently operating.

General

This section provides general operational notes about the Passport 4460.

- When you enter the date and time, do not enter leading zeros. If you enter a leading zero, the Passport 4400 displays an `invalid parameter` message.
- Idle Character: In this release, the default idle character is the 126 (7E) flag. To achieve mark (FF), set the idle character to 255.
- The channelized E1 CSU can only run at speeds up to 1.92 Mb/s to allow the use of timeslot 16, which provides for speeds up to 2.048 Mb/s on the E1 CSU. Timeslot 16 may be configured for both channelized and unchannelized E1 ports. When you use the CLI, timeslot 16 is referenced by 31. Entering “1-31” will select all E1 timeslots, including timeslot 16 (but not including timeslot 0, which is typically used for framing). (60323052)
- Call progress tones give a fast busy tone, not a slow busy tone when the channel is busy. The system provides the fast busy tone under the following conditions:
 - When all trunks are busy
 - When no trunk cable is connected
 - When the MPANL (Master Passport Access Network Link) is congested and the call is from the MVP (Multipurpose Voice Processor) side. (60324167)
- CAS/CCS Bypass supports only one bundle per expansion slot (maximum of two per unit: `exp1` and `exp2`). These bundles may contain any number of available timeslots (1-24 for T1 and 1-30 for E1). (60328369)
- The Lost Control Frames statistics counter for voice channels will only register for Passport 4460 to Passport 4400 units. It will not register for Passport 4400 to Passport 6400 units. (60329976)
- The “`localRouting`” parameter in the voice switching profile allows the administrator to turn off local call routing (switching) if no local routing is needed. This parameter was included to simplify the ingress/egress table configurations.

For example, if the entire network has four-digit calling numbers and all channels in a node are in the same hunt group, the ingress and the egress phone numbers in all the nodes can be set to a wildcard of “*****”. All DN/DNA (Directory Number/Data Network Address) resolutions will be done in VNCS (Voice Networking Call Server). (60330055)

- Ingress profiles give priority to the # sign over the * sign. In the case of Passport 6400 to Passport 4400 interworking, the Passport 4400 does not support or recognize the octothorpe (#) or asterisk (*) character in the incoming dialed digit string. For this reason, it is recommended that digit manipulation operations involving Passport 6400 to Passport 4400 interworking be restricted to the characters 0 through 9. (60333263)

SNA Services

This section provides operational notes about SNA services on the Passport 4460.

- In certain network configurations the host may poll the controllers before the Passport unit establishes SNA communications. Some SDLC PUs may not become active immediately. The PUs may require a second poll from the host in order to become active after the Passport unit is restarted.

One or more PUs may require an additional poll from the host before they will become active.

To reduce the amount of time required to send additional polls from the host to the Passport unit, the poll timer can be set to a shorter interval. On the AS/400, within the controller description, the NDMPOLLTMR parameter can be set to a value of 1, which will cause the AS/400 to poll the controller after 0.1 seconds, if there has been no response by the controller. (60317212)

- Local ring enhancement was added to SNA, allowing SDLC interworking over an RFC 1490 link with non-Passport devices. (60322142)
- When the unit is configured as SNA DCE (data communications equipment) with mark fill and frames are fragmented, set the window to 1 (one) to eliminate possible retransmits. (60322707)

Voice/Fax

This section provides operational notes about voice/fax services on the Passport 4460.

- G.711: The Passport 4460 supports 10 G.711 voice channels with speech activity detection (SAD) turned *off* and 20 G.711 voice channels with SAD turned *on*.

- Fax support for BRI (Basic Rate Interface) Voice Module: Due to the BRI Voice Module (BVM) clocking requirements for fax support, fax is only supported on the BVM when it is used in conjunction with an E1 CSU WAN module.

```
CLI> set voice profile bri
```

```
<Profile> : INTEGER (1..3)
```

```
<BRIClockSource> : internal | backplane
```

- For transparent CCS (common channel signaling) connections, T1/E1 cables must be connected to the expansion modules prior to configuration and reset. Otherwise calls may fail to connect.
- Per-call transport method: For the voice transport method, the SNMP index is a numeric value beginning with “1”; the internal ingress table index begins with the number “0.” Use the following table when configuring the voice transport method on a per-call basis (**set voice ingressTable transportMethod**). Do not use this table when configuring `ingressNumber` and `manipulationString`. (60324068)

You should configure this Ingress Index number:	For the parameter to take effect on this Ingress Index number:
2	1
3	2
4	3
5	4
.	.
.	.
60	59

- “Dead” DSPs (data signal processors):

When entering the CLI command **show voice channelStatus**, the *DSPOperStatus* may be displayed as “Dead.” In this context, “Dead” can mean either “down” or “not currently in use” (that is, timeslot not assigned). To determine which, look at the *TimeSlotAssigned* parameter.

- If *TimeSlotAssigned* is “-1,” then it indicates “Not currently in use” or “No timeslot assigned.”
- If *TimeSlotAssigned* is any value other than “-1,” then it indicates a “Down” DSP. (60324166)

- When you enter the CLI command **show voice channelStatus**, the *DSPOperStatus* may be displayed as “*ChannelDisabled*.” This status means that a timeslot is not assigned. If DS0 is bad, it will be displayed as “*Dead*.”

Passport 4400 and Passport 6400/7400 Interworking

For more information, refer to [Chapter 5, “Interworking,”](#) on page 53.

Obtaining Technical Bulletins

To obtain Passport 4400 technical bulletins online, access the Nortel Networks Web site (www.nortelnetworks.com), then select Technical Documentation from the Products, Services & Solutions area. In the product listing, click on Passport, then click on Passport 4400 Documentation.

Chapter 5 Interworking

This chapter provides information about how the Passport 4460 interworks with Passport 6400/7400 devices and with third-party routers.

Voice Interworking

The following voice interworking functionality has been tested and is supported:

Passport 4460	to Passport 6400/7400 MVP		to Passport 6400/7400 MVPe		to Passport 4430/50/55	to Passport 4460
	<i>Rel 5.1¹</i>	<i>Rel 7.0</i>	<i>Rel 5.1¹</i>	<i>Rel 7.0</i>	<i>Rel 4.0 and Earlier</i>	<i>Rel 4.1 and Later</i>
G.729	Yes	Yes	Yes	Yes	Yes	Yes
G.711	No	No	No	No ²	No	Yes

¹Tested with 5.1.20 (SSUP #20—BEO1SKB)

²Working if initiated by a Passport 4460 to a Passport 6400/7400 (see SR 60334509)



Note: Not all Passport 4400 features are supported on all releases of the Passport 6400/7400. Check with your Certified Distributor or Account Manager to understand the feature set compatibility.

Premium Voice

Premium Voice on the Passport 4460 interworks with Nortel Networks Marathon products as well as with other Passport 4460 devices, but it does not interwork with Passport 4400 products running Release 4.0 and earlier.

Passport 4400 and Passport 6400/7400 Interworking

Release 4.1 and higher of the Passport 4460 provide interworking support for the following Passport 6400/7400 release levels:

- Release 4.2
- Release 5.0
- Release 5.1
- Release 7.0



Note: Support for Release 4.2 and 5.0 of the Passport 6400 is not available after June 30, 2000. For more information, contact your Certified Distributor or Account Manager.

Call Forwarding Limitation

The Call Forward feature on the Passport 4460 did not function from an external number. This limitation has been partially corrected, and the following list shows which functionality is supported and which is not (60329975):

- Passport 4400 to Passport 4400 - supported
- Passport 6400/7400 to Passport 6400/7400 - supported
- Passport 4400 to Passport 6400/7400 - supported
- Passport 6400/7400 to Passport 4400 - NOT supported

High-Speed WAN Link Limitation

On the Passport 4460, if Transmit Signal Element Timing (DTE Source) is not used on the Passport 6400/7400 side, the WAN link will not establish a connection through the serial port if the baud rate is above 1.344 Mb/s. If the baud rate is set to a lower value, the SVC and link will establish a connection. When using a V.35 or V.36 interface, it is recommended that the “Transmit Signal Element Timing (DTE Source)” signal be used on the Passport 6400/7400, especially at high data rates.

However, the X.21 interface on the Passport 4460 does not currently support the “DTE Signal Element Timing” signal (60335312). Use the following table to determine the appropriate maximum cable length for the desired data rate.

Cable Length (in feet)	Data Rates	
	X.21 Terminated	X.21 Unterminated
15	2,048,000.0000	1,024,000
25	2,048,000.0000	400,000
50	2,048,000.0000	200,000
100	1,523,229.2460	100,000
150	1,173,364.6230	70,000
200	954,198.4733	50,000
250	804,020.1005	45,000
300	694,685.6547	38,000
400	546,149.6450	28,000
500	449,943.7570	24,000

For More Information

For more information about known issues involving Passport 4400 and Passport 6400/7400 interworking, refer to [“Passport 4400 and Passport 6400/7400 Interworking”](#) on page 43.

Passport 4400 and Other Routers

The Passport 4400 interworks with third-party routers. The Passport 4400 supports frame relay PVC connection with third-party routers using RFC 1490 standard encapsulation method. In addition, the Passport 4400 interworks with Passport 6400 and Passport 7400 Virtual Routers and BayRS routers.

Chapter 6

Product Documentation

This chapter provides information about these topics:

- “Documentation Web Site” on page 57
- “List of Manuals” on page 58
- “Passport 4400 Configurator Documentation URL Update” on page 58
- “For More Information” on page 59

Documentation Web Site

To obtain Passport 4400 documentation online, access the Nortel Networks Web site (www.nortelnetworks.com), then select Technical Documentation from the Products, Services & Solutions area. In the product listing, click on Passport, then click on Passport 4400 Documentation.



Note: Any reference to a URL for documentation in any of the manuals should now refer to www.nortelnetworks.com.

List of Manuals

The Passport 4460 includes the following product documentation, available from Nortel Networks Web site (www.nortelnetworks.com), and delivered on the product CD-ROM:

- *Configuring and Operating the Passport 4400*, 206916-D Rev 00
- *Getting Started with Passport 4460*, 209664-C Rev 00
- *Getting Started with Passport 4400 and 6400/7400 Interworking*, 209371-E Rev 00
- *Passport 4400 Release Notes for Release 4.3.1*, 211571-D Rev 00 (this document)
- *Passport 4460 Quick Start Guide*, 213450-A Rev 00
- *Reference for Passport 4400 and 6400/7400 Interworking*, 209372-F Rev 00
- *Reference for Passport 4460 Cables*, 205678-E Rev 00
- *Reference for Passport 4460 Command Line Interface (CLI)*, 209666-D Rev 00
- *Reference for Passport 4460 Hardware*, 205677-F Rev 00
- *Using Passport 4400 Install Tool*, 206906-E Rev 00
- *Using the Passport 4400 Mass Deployment and Reporting Tool*, 209665-C Rev 00

Passport 4400 Configurator Documentation URL Update

If you install the HTML version of the Passport 4460 online documentation (*Configuring and Operating the Passport 4400*, 206916-D Rev 00) on a Web site, you must set the Documentation URL for the Passport 4400 Configurator before you can access the documentation from within the Configurator. You change this URL through the Passport 4400 Configurator Web pages.

To change the Documentation URL:

- 1 Click on *Administration*.

- 2 Click on *Document URL*.

The Documentation URL window opens:

Documentation URL [Pub, B]

Documentation Server URL:

The URL displayed in this window indicates where the online documentation is located (either at the Nortel Networks site (the default), or at a location that you designate).

- 3 If you downloaded the documentation elsewhere, enter the URL in the Documentation Server URL field, and click *Save*.

A “*Command Successful*” message appears.

For More Information

Refer to *Getting Started with Passport 4460* (part number 209664-C Rev 00) for information about accessing the HTML-based documentation (delivered on the product CD-ROM).

Index

Numbers

10372023	43	60334509	43, 53
50338043	46	60334618	40, 46
60317212	50	60334681	40, 46
60318203	46	60334715	41
60318863	46	60334795	41
60318864	46	60335184	41
60322142	50	60335277	41
60322195	46	60335288	41
60322707	50	60335312	44, 55
60323052	49	60337515	24
60324166	51	60337519	24
60324167	49	60337811	34
60324201	40		
60325766	42	Q	
60328369	49	Q00092053	47
60329391	43	Q00092081	41
60329975	43, 54	Q00092096	24
60329976	43, 49	Q00092097	24
60330055	49	Q00092106	34
60330060	42	Q00092116	40
60330743	40	Q00092131	27
60331288	39	Q00102265	41
60332364	40	Q00102443	41
60332408	41	Q00106746	42
60332649	43	Q00133466	40
60332794	40	Q00156001	29
60332800	40	Q00172160	42
60333263	50	Q00416143	34
		Q00417748	35

62 Index

Q00427865	26	Q00663104	26
Q00478908	34	Q00666767	25
Q00497334	24	Q00667563	26
Q00517320	37	Q00680942	29
Q00523793	27	Q00687803	26
Q00527983	42	Q00688822	38
Q00532407	24	Q00692261	26
Q00541920	34	Q00698977	26
Q00543002	25	Q00700603	26
Q00545439	23	Q00707227	26
Q00549722	37	Q00713022	27
Q00554016	34	Q00716921	31
Q00557592	29	Q00717972	27
Q00563919	32	Q00746257	27
Q00566565	35	Q00776904	28
Q00570781	34	Q00784023	28
Q00573706	33	Q00786803	29
Q00576461	35	Q00796022	28
Q00581786	35	Q00796404	18
Q00581826	25	Q00797385	28
Q00596783	35	Q00799083	28
Q00603191	25	Q00802721	29
Q00604156	24	Q00806570	29
Q00611563	23	Q00807270	28
Q00613623	24	Q00808200	29
Q00626824	36	Q00811192	38
Q00632368	36	Q00814824	31
Q00632661	20	Q00817734	18
Q00637712	24	Q00819483	40
Q00638437	25	Q00820871	21
Q00640770	36	Q00821003	30
Q00655672	25	Q00821606	28
Q00656908	35	Q00827117	30
Q00657696	25	Q00827357	31
Q00659620	36	Q00829027	30

Q00829077	30
Q00833791	32
Q00835183	30
Q00835711	19
Q00835744	31
Q00835857	32
Q00843732	30
Q00843821	31
Q00846634	31
Q00847285	30
Q00849609	20
Q00849610	19
Q00850308	38
Q00856093	33
Q00856109	33
Q00862197	32
Q00862319	36
Q00869699	31
Q00873334	37
Q00874015	21
Q00876119	38
Q00876563	32
Q00876572	33
Q00879372	32
Q00890090	33
Q00895186	33
Q00915264	38
Q00915373	38
Q00932261	17
Q00947639	38
Q00949697	39

Passport 4400 Release Notes for Release 4.3.1

Address comments to:
Manager, Technical Publications
Nortel Networks
600 Technology Park Drive
Billerica, MA 01821-4130
U.S.A.

© 2004 Nortel Networks
All rights reserved

Information subject to change without notice

Publication: 211571-D Rev 00
Date: July 2004