



Passport 7400, 15000, 20000

Documentation Guide

241-5701-001

Passport 7400, 15000, 20000

Documentation Guide

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Chapter 1

Passport documentation

Passport documentation consists of procedural, descriptive, and reference information to support the Passport products. For an overview of Passport documentation and to see which documents belong in each functional area, see “Documentation packaging summary” (page 10). To see a description of the functional areas into which Passport documentation has been divided as well as the documents belonging to each area, see one of the following:

- “Product fundamentals” (page 14)
- “Planning and Engineering” (page 16)
- “Hardware installation and maintenance” (page 16)
- “Software management” (page 18)
- “Network management system administration” (page 18)
- “Configuration management” (page 19)
- “Core networking” (page 20)
- “Performance management” (page 22)
- “Accounting management” (page 23)
- “Fault management” (page 24)
- “Security management” (page 25)
- Service guides, including
 - “ATM guides” (page 25)
 - “Voice guides” (page 28)

- “IP guides” (page 30)
- “Frame Relay guides” (page 31)
- “Ethernet guide” (page 32)

To understand the numbers assigned to each document, refer to “Passport document numbering” (page 35).

For the definitions of the documentation statuses assigned to feature information and to documents, see “Information quality” (page 10).

For an overview of the Passport products and the services they support, see 241-5701-030 *Passport 7400, 15000, 20000 Overview*.

For information on changes to Passport documentation for this software release, see 241-5701-000 *Passport 7400, 15000, 20000 What’s New in Passport Documentation*.

Information quality

Documents are delivered with either a Draft, Preliminary, or Standard designation for the entire book, but the content for a specific feature may be at a different stage of development. The documentation status of the features is indicated in the 241-5701-000 *Passport 7400, 15000, 20000 What’s New in Passport Documentation*.

The status definitions are as follows:

- **Draft:** Information is written and reviewed for technical content, but the feature is still under development and change is expected.
- **Preliminary:** Development of the feature content is complete and is considered stable.
- **Standard:** The feature content has been fully reviewed for quality and is suitable for delivery to customers.

Documentation packaging summary

The table, “Documentation packaging summary” (page 11) describes the Passport documentation suite and the corresponding Information Model categories.

Table 1
Documentation packaging summary

Information type	Documents
Product Fundamentals	<p>241-5701-000 <i>Passport 7400, 15000, 20000 What's New in Passport Documentation</i></p> <p>241-5701-001 <i>Passport 7400, 15000, 20000 Documentation Guide</i></p> <p>241-5701-002 <i>Passport 7400, 15000, 20000 Using New Task-based Documentation</i></p> <p>241-5701-005 <i>Passport 7400, 15000, 20000 List of Terms</i></p> <p>241-5701-030 <i>Passport 7400, 15000, 20000 Overview</i></p> <p>241-5701-045 <i>Passport 7400, 15000, 20000 Management System User Interface Guide</i></p> <p>241-5701-050 <i>Passport 7400, 15000, 20000 Commands</i></p> <p>241-5701-053 <i>Passport 7400, 15000, 20000 Command Summary Card</i></p> <p>241-5701-060 <i>Passport 7400, 15000, 20000 Components</i></p>
Hardware Installation and maintenance	<p>241-1501-200 <i>Passport 15000, 20000 Hardware Description</i></p> <p>241-7401-200 <i>Passport 7400 Hardware Description</i></p> <p>241-1501-205 <i>Passport 15000, 20000 Site Requirements and Preparation Guide</i></p> <p>241-1501-240 <i>Passport 15000, 20000 Hardware Installation, Maintenance and Upgrade</i></p> <p>241-7401-240 <i>Passport 7400 Hardware Installation, Maintenance and Upgrade</i></p> <p>241-7401-242 <i>Passport 7400 FP Cabling Specifications</i></p>
Software Management	<p>241-5701-270 <i>Passport 7400, 15000, 20000 Software Installation Guide</i></p> <p>241-5701-272 <i>Passport 7400, 15000, 20000 Software Upgrade</i></p>
Network Management System Administration	<p>241-5701-271 <i>Passport 7400, 15000, 20000 Network Management Connectivity</i></p> <p>241-5701-300 <i>Passport 7400, 15000, 20000 SNMP Guide</i></p>
Configuration Management	<p>241-5701-600 <i>Passport 7400, 15000, 20000 Configuration Guide</i></p> <p>241-5701-615 <i>Passport 7400, 15000, 20000 FP Configuration Reference</i></p>
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Table 1 (continued)
Documentation packaging summary

Information type	Documents
Core Networking	241-5701-400 <i>Passport 7400, 15000, 20000 Networking Overview</i> 241-5701-405 <i>Passport 7400, 15000, 20000 Call Server Guide</i> 241-5701-410 <i>Passport 7400, 15000, 20000 Call Redirection Server Guide</i> 241-5701-415 <i>Passport 7400, 15000, 20000 Hunt Group Server Guide</i> 241-5701-420 <i>Passport 7400, 15000, 20000 Trunking Guide</i> 241-5701-425 <i>Passport 7400, 15000, 20000 Dynamic Packet Routing System Guide</i> 241-5701-435 <i>Passport 7400, 15000, 20000 Path-Oriented Routing System Guide</i> 241-5701-445 <i>Passport 7400, 15000, 20000 Multiprotocol Label Switching Guide</i> 241-7401-110 <i>Passport 7400, DPN-100 Interworking Guide</i> 241-7401-440 <i>Passport 7400 Frame Relay Managed Cut-through Switching Guide</i>
Performance Management	241-5701-611 <i>Passport 7400, 15000, 20000 Data Collection Guide</i>
Accounting Management	241-5701-650 <i>Passport 7400, 15000, 20000 Accounting Fundamentals</i> 241-6001-309 <i>Preside MDM Management Data Provider User Guide</i> 241-6001-806 <i>Preside MDM MDP Data Formats Reference Guide</i>
Fault Management	241-5701-500 <i>Passport 6400, 7400, 15000, 20000 Alarms</i> 241-5701-510 <i>Passport 7400, 15000, 20000 Trace Guide</i> 241-5701-520 <i>Passport 7400, 15000, 20000 Troubleshooting and Testing</i> 241-1001-509 <i>DPN-100 Call Clear, Reset and Diagnostic Codes (DPN-100 document)</i>
Security Management	NN10600-605 <i>Passport - MDM Network Security: Operations</i> NN10600-606 <i>Passport - MDM Network Security: User Access Configuration</i> NN10600-607 <i>Passport - MDM Network Security: Secure Communications Configuration</i>
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Table 1 (continued)
Documentation packaging summary

Information type	Documents
ATM Guides	<p>241-5701-700 <i>Passport 7400, 15000, 20000 ATM Overview</i></p> <p>241-5701-702 <i>Passport 7400, 15000, 20000 ATM Routing and Signaling Fundamentals</i></p> <p>241-5701-705 <i>Passport 7400, 15000, 20000 ATM Traffic Management Fundamentals</i></p> <p>241-5701-706 <i>Passport 7400, 15000, 20000 ATM Traffic Shaping and Policing</i></p> <p>241-5701-707 <i>Passport 7400, 15000, 20000 ATM Queuing and Scheduling</i></p> <p>241-5701-708 <i>Passport 7400, 15000, 20000 ATM CAC and Bandwidth Management</i></p> <p>241-5701-710 <i>Passport 7400, 15000, 20000 ATM Configuration Guide</i></p> <p>241-5701-715 <i>Passport 7400, 15000, 20000 ATM Monitoring and Troubleshooting Guide</i></p> <p>241-5701-720 <i>Passport 7400, 15000, 20000 AAL1 Circuit Emulation Guide</i></p> <p>241-5701-730 <i>Passport 7400, 15000, 20000 Inverse Multiplexing for ATM Guide</i></p>
Voice Guides	<p>241-7401-480 <i>Passport 7400 Multiservice Passport Access Network Link Guide</i></p> <p>241-7401-750 <i>Passport 7400 Voice Transport Guide</i></p> <p>241-7401-755 <i>Passport 7400 Voice Networking Guide</i></p> <p>241-7401-760 <i>Passport 7400 DCME Voice Service Guide</i></p> <p>241-7401-765 <i>Passport 7400 Remote Server Agent Guide</i></p> <p>241-7401-770 <i>Passport 7400 HDLC Transparent Data Service Guide</i></p> <p>241-7401-775 <i>Passport 7400 Bit Transparent Data Service Guide</i></p> <p>241-5701-780 <i>Passport 7400, 15000, 20000 Packet Voice Gateway Technology Fundamentals</i></p> <p>241-5701-781 <i>Passport 7400, 15000, 20000 Configuring Non-Switched Packet Voice Gateway</i></p> <p>241-5701-782 <i>Passport 7400, 15000, 20000 Configuring Switched Packet Voice Gateway</i></p>
IP Guides	<p>241-5701-805 <i>Passport 7400, 15000, 20000 Understanding IP</i></p> <p>241-5701-810 <i>Passport 7400, 15000, 20000 Configuring IP</i></p> <p>241-5701-581 <i>Passport 7400, 15000, 20000 Basics: VPN Fundamentals</i></p> <p>241-5701-582 <i>Passport 7400, 15000, 20000 VPN Configuration Management</i></p>
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Table 1 (continued)
Documentation packaging summary

Information type	Documents
Frame Relay Guides	241-5701-901 <i>Passport 7400, 15000, 20000 Frame Relay Fundamentals</i> 241-5701-902 <i>Passport 7400, 15000, 20000 Configuring Frame Relay</i> 241-5701-905 <i>Passport 7400, 15000, 20000 Frame Relay UNI Summary Card</i> 241-5701-915 <i>Passport 7400, 15000, 20000 Frame Relay NNI Summary Card</i> 241-5701-920 <i>Passport 7400, 15000, 20000 Frame Relay to ATM Interworking Guide</i>
Ethernet Guide	241-1501-850 <i>Passport 15000, 20000 Ethernet Service Operations Configuration</i>
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Product fundamentals

Product fundamentals documents provide reference information that applies to the whole product and descriptive information about the documentation suite. You can find information about Passport product fundamentals in the following documents:

- “241-5701-000 Passport 7400, 15000, 20000 What’s New in Passport Documentation” (page 15)
- “241-5701-002 Passport 7400, 15000, 20000 Using New Task-based Documentation” (page 15)
- “241-5701-005 Passport 7400, 15000, 20000 List of Terms” (page 15)
- “241-5701-030 Passport 7400, 15000, 20000 Overview” (page 15)
- “241-5701-045 Passport 7400, 15000, 20000 Management System User Interface Guide” (page 15)
- “241-5701-050 Passport 7400, 15000, 20000 Commands” (page 16)
- “241-5701-053 Passport 7400, 15000, 20000 Command Summary Card” (page 16)
- “241-5701-060 Passport 7400, 15000, 20000 Components” (page 16)

The product fundamentals category also includes the present guide, the 241-5701-001 *Passport 7400, 15000, 20000 Documentation Guide*.

241-5701-000 *Passport 7400, 15000, 20000 What's New in Passport Documentation*

This document provides a brief description of the new features in this release. The document also identifies changes to the Passport documentation suite between Passport releases and any changes to the delivery method. For additional feature information and last-minute post-publication changes to the suite (if applicable), see the Release Notes for this PCR release.

241-5701-002 *Passport 7400, 15000, 20000 Using New Task-based Documentation*

This document is a quick reference for using new task-based documentation. It describes the structure of task-based documentation and how it is used effectively.

241-5701-005 *Passport 7400, 15000, 20000 List of Terms*

This document contains a glossary of the terms and acronyms used in the Passport documentation suites.

241-5701-030 *Passport 7400, 15000, 20000 Overview*

This document provides an overview of the Passport 7400, Passport 15000 and 20000, and Passport 15000-VSS systems. This document also describes the Passport hardware, software, network management functions, technical specifications, and services, and explains their network role and capabilities. It describes how you can use Passport to provide high-performance switching efficiently and economically in carrier markets. The document also contains information on how to order Passport hardware, software, or documentation and on how to contact Nortel Networks support services.

241-5701-045 *Passport 7400, 15000, 20000 Management System User Interface Guide*

This document describes the forms of the Passport node management and explains how to use the Passport management system user interface to connect to, operate, and configure the Passport node.

241-5701-050 *Passport 7400, 15000, 20000 Commands*

This document explains how to use the Passport commands to control the Passport software. This explanation includes generic command information and a description of all the commands you can use. The document also contains detailed examples of many of the Passport commands.

241-5701-053 *Passport 7400, 15000, 20000 Command Summary Card*

This document describes the most commonly used Passport commands.

241-5701-060 *Passport 7400, 15000, 20000 Components*

This document contains detailed descriptions of the components and subcomponents used in Passport 7400, Passport 15000, and Passport 20000 software. This document also contains information on the components' operational and provisional attributes and the functional relationships that exist between them. This document is organized according to root level components.

Planning and Engineering

Planning and engineering documents provide highly technical information that is used to design and engineer a network. There are currently no documents in the suite that fall in this category.

Hardware installation and maintenance

Hardware installation and maintenance documents provide descriptive and procedural information required to plan and prepare the installation site, install the equipment, and maintain the hardware. You can find information on Passport hardware installation and maintenance in the following documents:

- “241-1501-200 Passport 15000, 20000 Hardware Description” (page 17)
- “241-7401-200 Passport 7400 Hardware Description” (page 17)
- “241-1501-205 Passport 15000, 20000 Site Requirements and Preparation Guide” (page 17)
- “241-1501-240 Passport 15000, 20000 Hardware Installation, Maintenance and Upgrade” (page 17)

- “241-7401-240 Passport 7400 Hardware Installation, Maintenance and Upgrade” (page 17)
- “241-7401-242 Passport 7400 FP Cabling Specifications” (page 18)

241-1501-200 *Passport 15000, 20000 Hardware Description*

This document describes the hardware components, processor cards, and cables on the Passport 15000 or 20000, including the functions and interrelationships of each hardware component and subassembly.

241-7401-200 *Passport 7400 Hardware Description*

This document describes and provides detailed interface specifications for all Passport 7400 control and function processors.

241-1501-205 *Passport 15000, 20000 Site Requirements and Preparation Guide*

This document describes how to plan the hardware installation of the Passport 15000 or 20000 switch and to prepare the site where the installation will occur. Physical space requirements, power feed information, and special considerations such as electrostatic discharge and electromagnetic interference are included in this guide.

241-1501-240 *Passport 15000, 20000 Hardware Installation, Maintenance and Upgrade*

This document contains complete instructions for installing, adding, replacing, maintaining, or upgrading the hardware and associated equipment of a Passport 15000 or 20000 switch. The instructions are supported by safety requirements and considerations of best practices to ensure the safety of personnel and the safe, effective, and timely handling of the switch hardware.

241-7401-240 *Passport 7400 Hardware Installation, Maintenance and Upgrade*

This document contains information on the selection and preparation of a site, the installation, maintenance, powering up and testing of a Passport 7400 node.

241-7401-242 *Passport 7400 FP Cabling Specifications*

This document contains reference information on cabling connections for Passport 7400 FPs.

Software management

Software management documents provide descriptive and procedural information required to perform an initial software installation or a software upgrade or downgrade, including configuration procedures and tests to be performed immediately after installation. You can find information on Passport software installation and commissioning in the following documents:

- “241-5701-270 Passport 7400, 15000, 20000 Software Installation Guide” (page 18)
- “241-5701-272 Passport 7400, 15000, 20000 Software Upgrade” (page 18)

241-5701-270 *Passport 7400, 15000, 20000 Software Installation Guide*

This document describes the process of verifying the software installed on a Passport node and installing new or additional software features if required. The document also contains instructions on how to migrate the software on an existing Passport node to a new software release.

241-5701-272 *Passport 7400, 15000, 20000 Software Upgrade*

This document provides all the procedures necessary to upgrade Passport software, including software migration, feature upgrades, and patch activation.

Network management system administration

Network management system administration documents provide procedural information for operating and maintaining the platform on which the network management system runs. You can find information on Passport network management system administration in the following documents:

- “241-5701-271 Passport 7400, 15000, 20000 Network Management Connectivity” (page 19)
- “241-5701-300 Passport 7400, 15000, 20000 SNMP Guide” (page 19)

241-5701-271 *Passport 7400, 15000, 20000 Network Management Connectivity*

This document describes connecting network management tools to Passport and using the StartUp utility. Procedures for connecting a newly-installed Passport to the network are included along with details on setting up your chosen method of network management, connecting the Passport to the network, connection options, and network topology examples.

241-5701-300 *Passport 7400, 15000, 20000 SNMP Guide*

This document contains a general description of the simple network management protocol (SNMP) and specific details on SNMPv1 and SNMPv2. This document also contains procedures for provisioning SNMP on a generic level and for specifically provisioning SNMPv1 and SNMPv2. In addition, you can find information on supported MIBs, implementation details for supported and unsupported objects, and troubleshooting information.

Configuration management

Configuration management documents provide procedural information for performing routine configuration tasks such as setting up routes, connections, protocols and services or for configuring hardware components such as cards. You can find information about Passport configuration management in the following documents:

- “241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide*” (page 19)
- “241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*” (page 20)

241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide*

This document contains instructions on how to configure the basic elements of a Passport node.

241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*

This document contains reference information for all Passport 7400-series and Passport 15000 and 20000 function processors (FP). For each FP, the document provides a description of its functionality, configuration parameters, supported applications and services, and OSI states.

Core networking

Core networking documents provide fundamental information required to understand routing and trunking, as well as procedural information required to configure and police traffic contracts. You can find information about Passport core networking in the following documents:

- “241-5701-400 Passport 7400, 15000, 20000 Networking Overview” (page 21)
- “241-5701-405 Passport 7400, 15000, 20000 Call Server Guide” (page 21)
- “241-5701-410 Passport 7400, 15000, 20000 Call Redirection Server Guide” (page 21)
- “241-5701-415 Passport 7400, 15000, 20000 Hunt Group Server Guide” (page 21)
- “241-5701-420 Passport 7400, 15000, 20000 Trunking Guide” (page 21)
- “241-5701-425 Passport 7400, 15000, 20000 Dynamic Packet Routing System Guide” (page 21)
- “241-5701-435 Passport 7400, 15000, 20000 Path-Oriented Routing System Guide” (page 22)
- “241-5701-445 Passport 7400, 15000, 20000 Multiprotocol Label Switching Guide” (page 22)
- “241-7401-110 Passport 7400, DPN-100 Interworking Guide” (page 22)
- “241-7401-440 Passport 7400 Frame Relay Managed Cut-through Switching Guide” (page 22)

241-5701-400 *Passport 7400, 15000, 20000 Networking Overview*

This document contains a general description of the Passport networking features and architecture. This document also includes information on routing, trunking, and traffic management.

241-5701-405 *Passport 7400, 15000, 20000 Call Server Guide*

This document describes the Passport Call Server for Passport networks.

241-5701-410 *Passport 7400, 15000, 20000 Call Redirection Server Guide*

This document contains an overview of the call redirection service and details on deploying, provisioning, maintaining, and troubleshooting the service.

241-5701-415 *Passport 7400, 15000, 20000 Hunt Group Server Guide*

This document contains an overview of the hunt group capability and details on deploying, provisioning, maintaining and troubleshooting hunt groups.

241-5701-420 *Passport 7400, 15000, 20000 Trunking Guide*

This document contains a more specific description of Passport trunking functionality, the configuration procedures for Passport trunks, and the operational and debugging procedures associated with Passport trunks.

241-5701-425 *Passport 7400, 15000, 20000 Dynamic Packet Routing System Guide*

This document contains information specific to the Passport Dynamic Packet Routing System (DPRS). This information includes a description of DPRS routing, DPRS traffic management features, and network planning with DPRS. In addition, the document contains DPRS configuration, operational, and troubleshooting procedures.

241-5701-435 *Passport 7400, 15000, 20000 Path-Oriented Routing System Guide*

This document contains information specific to the Passport Path-Oriented Routing System (PORS). This information includes a description of PORS routing, PORS congestion and bandwidth management, the Passport components and attributes used by PORS, configuration procedures, and routing examples.

241-5701-445 *Passport 7400, 15000, 20000 Multiprotocol Label Switching Guide*

This document contains an overview of MPLS, and explains how it works. The document also contains a description of MPLS architecture, and information on configuring and troubleshooting MPLS. This document also describes the MPLS gateway application which implements ATM over MPLS over POS for transport across a core network.

241-7401-110 *Passport 7400, DPN-100 Interworking Guide*

This document contains a description of how to interconnect a Passport 7400 RID subnet to an existing DPN-100 network. This document also contains procedures for provisioning, monitoring, and troubleshooting an interworking network environment consisting of Passport 7400 nodes and DPN-100 nodes.

241-7401-440 *Passport 7400 Frame Relay Managed Cut-through Switching Guide*

This document contains an overview of MCS for Passport 7400, a description of its architecture, and information on how it is used by Frame Relay services. This document also contains information on engineering, installing, provisioning, and troubleshooting MCS.

Performance management

Performance management documents contain information about managing resource usage. You can find information about performance management for Passport in the following document:

- “241-5701-611 Passport 7400, 15000, 20000 Data Collection Guide” (page 23)

241-5701-611 *Passport 7400, 15000, 20000 Data Collection Guide*

This document describes the Passport data collection system and explains how to configure the node for collection of accounting data, statistics, alarms, state change notifications, logs, and debug information.

Accounting management

Accounting management documents provide all the information required to set up, collect, process and modify accounting records. For information on managing Passport accounting, refer to “241-5701-650 Passport 7400, 15000, 20000 Accounting Fundamentals” (page 23).

Two documents from the Preside Multiservice Data Manager suite are also included. They provide information on Preside Multiservice Data Manager accounting and statistics data collection, as follows:

- “241-6001-309 Preside MDM Management Data Provider User Guide” (page 23)
- “241-6001-806 Preside MDM MDP Data Formats Reference Guide” (page 23)

241-5701-650 *Passport 7400, 15000, 20000 Accounting Fundamentals*

This document contains an overview of Passport accounting and accounting for Passport services.

241-6001-309 *Preside MDM Management Data Provider User Guide*

This document provides procedures for installing, configuring and administering the Management Data Provider (MDP).

241-6001-806 *Preside MDM MDP Data Formats Reference Guide*

This document provides descriptions of the data formats supported by the Management Data Provider (MDP).

Fault management

Fault management documents provide fundamental information about how faults are managed by the system, reference information such as logs and error messages, and procedural information required to monitor alarms, clear alarms, test equipment and troubleshoot problems. For information on Passport fault management, refer to the following documents.

- “241-5701-500 Passport 6400, 7400, 15000, 20000 Alarms” (page 24)
- “241-5701-510 Passport 7400, 15000, 20000 Trace Guide” (page 24)
- “241-5701-520 Passport 7400, 15000, 20000 Troubleshooting and Testing” (page 24)

One document from the DPN-100 suite is also included, as follows:

- “241-1001-509 DPN-100 Call Clear, Reset and Diagnostic Codes” (page 24)

241-5701-500 Passport 6400, 7400, 15000, 20000 Alarms

This document contains reference information on the alarms generated by Passport. This document also includes information on how to interpret alarms and their potential causes. You will also find information on the Passport alarm philosophy.

241-5701-510 Passport 7400, 15000, 20000 Trace Guide

This guide explains the interface protocol, provisioning, operating and troubleshooting procedures of the Passport Trace System (PTS).

241-5701-520 Passport 7400, 15000, 20000 Troubleshooting and Testing

This document describes the fault management information that is available on Passport, describes the basic troubleshooting process, and provides procedures for troubleshooting various hardware and software systems on a Passport node.

241-1001-509 DPN-100 Call Clear, Reset and Diagnostic Codes

This DPN-100 document provides details required to determine the cause of an error condition and possible methods to alleviate the problem.

Security management

Security management documents contain information about managing the protection of resources from unauthorized or detrimental access and use. You can find security information for Passport in the following document:

- “NN10600-605 Passport - MDM Network Security: Operations” (page 25)
- “NN10600-606 Passport - MDM Network Security: User Access Configuration” (page 25)
- “NN10600-607 Passport - MDM Network Security: Secure Communications Configuration” (page 25)

Note: These three documents are shared by both the Passport and Preside MDM documentation suites.

NN10600-605 Passport - MDM Network Security: Operations

This document contains procedural and conceptual information on implementing network security for engineers or anyone who provisions security in a network.

NN10600-606 Passport - MDM Network Security: User Access Configuration

This document contains procedural information on configuring user access and permissions for anyone who provisions security measures in a network.

NN10600-607 Passport - MDM Network Security: Secure Communications Configuration

This document contains procedural information on implementing network security for engineers or anyone who provisions security measures in a network.

ATM guides

The ATM guides provide descriptive and procedural information required to understand, install, operate and maintain Passport asynchronous transfer mode (ATM). You can find information on PassportATM in the following documents:

- “241-5701-700 Passport 7400, 15000, 20000 ATM Overview” (page 26)

- “241-5701-702 Passport 7400, 15000, 20000 ATM Routing and Signaling Fundamentals” (page 26)
- “241-5701-705 Passport 7400, 15000, 20000 ATM Traffic Management Fundamentals” (page 27)
- “241-5701-706 Passport 7400, 15000, 20000 ATM Traffic Shaping and Policing” (page 27)
- “241-5701-707 Passport 7400, 15000, 20000 ATM Queuing and Scheduling” (page 27)
- “241-5701-708 Passport 7400, 15000, 20000 ATM CAC and Bandwidth Management” (page 27)
- “241-5701-710 Passport 7400, 15000, 20000 ATM Configuration Guide” (page 27)
- “241-5701-715 Passport 7400, 15000, 20000 ATM Monitoring and Troubleshooting Guide” (page 28)
- “241-5701-720 Passport 7400, 15000, 20000 AAL1 Circuit Emulation Guide” (page 28)
- “241-5701-730 Passport 7400, 15000, 20000 Inverse Multiplexing for ATM Guide” (page 28)

241-5701-700 *Passport 7400, 15000, 20000 ATM Overview*

This document provides an overview of the Passport ATM service, including information on ATM network architecture, connections and interfaces, traffic management, and transmission services.

241-5701-702 *Passport 7400, 15000, 20000 ATM Routing and Signaling Fundamentals*

This document contains detailed descriptive information on ATM routing and signaling for Passport nodes and networks. This information includes detailed descriptions of ATM interfaces and connections, network addressing, and networking scenarios.

241-5701-705 *Passport 7400, 15000, 20000 ATM Traffic Management Fundamentals*

This document provides a road map to the ATM traffic management documents. It also provides an overview of controls, descriptions of traffic contracts, PNNI and UNI routing impacts, standards compliance, configuration settings for all FP types, and descriptions of general concepts.

241-5701-706 *Passport 7400, 15000, 20000 ATM Traffic Shaping and Policing*

This document describes the traffic management concepts that apply to the network edge: traffic shaping and policing, and applications by FP type.

241-5701-707 *Passport 7400, 15000, 20000 ATM Queuing and Scheduling*

This document describes the traffic management concepts that apply to the node and FP resources: queuing, scheduling, memory management, and packet-wise discard, and applications by FP type.

241-5701-708 *Passport 7400, 15000, 20000 ATM CAC and Bandwidth Management*

This document describes traffic management concepts that apply to bandwidth management: CAC, bandwidth pools, and dynamic bandwidth management.

241-5701-710 *Passport 7400, 15000, 20000 ATM Configuration Guide*

This document describes how to configure the Passport ATM service for permanent and dynamic connections. This information includes the configuration of interfaces, routes, switched connections, virtual channels, paths, and ATM accounting.

241-5701-715 Passport 7400, 15000, 20000 ATM Monitoring and Troubleshooting Guide

This document contains information on how to manage faults on those connections running the Passport ATM service. This document also contains information on how to monitor ATM function processors, interfaces, and connections. In the event that you find problems, you can refer to this guide for troubleshooting information on how to resolve them.

241-5701-720 Passport 7400, 15000, 20000 AAL1 Circuit Emulation Guide

This document contains a description of the AAL1 circuit emulation service and its capabilities. This document also contains procedures for configuring, monitoring, and troubleshooting the circuit emulation service on Passport 7400, Passport 15000 and 20000.

241-5701-730 Passport 7400, 15000, 20000 Inverse Multiplexing for ATM Guide

This document contains a description of IMA and its capabilities. This document also contains procedures for configuring, monitoring, and troubleshooting IMA.

Voice guides

Information on Passport voice services can be found in the following documents:

- “241-7401-480 Passport 7400 Multiservice Passport Access Network Link Guide” (page 29)
- “241-7401-750 Passport 7400 Voice Transport Guide” (page 29)
- “241-7401-755 Passport 7400 Voice Networking Guide” (page 29)
- “241-7401-760 Passport 7400 DCME Voice Service Guide” (page 29)
- “241-7401-765 Passport 7400 Remote Server Agent Guide” (page 29)
- “241-7401-770 Passport 7400 HDLC Transparent Data Service Guide” (page 29)
- “241-7401-775 Passport 7400 Bit Transparent Data Service Guide” (page 30)

- “241-5701-780 Passport 7400, 15000, 20000 Packet Voice Gateway Technology Fundamentals” (page 30)
- “241-5701-781 Passport 7400, 15000, 20000 Configuring Non-Switched Packet Voice Gateway” (page 30)
- “241-5701-782 Passport 7400, 15000, 20000 Configuring Switched Packet Voice Gateway” (page 30)

241-7401-480 *Passport 7400 Multiservice Passport Access Network Link Guide*

This document contains a description of the Passport MPANL service and protocol. This document also contains instructions on provisioning, operating, monitoring, and troubleshooting the MPANL service.

241-7401-750 *Passport 7400 Voice Transport Guide*

This document describes the Passport 7400 Voice Transport service.

241-7401-755 *Passport 7400 Voice Networking Guide*

This document describes the voice networking service for Passport 7400. Information in the document explains operation and capabilities, installation, application examples, and interpretation and resolution of problems.

241-7401-760 *Passport 7400 DCME Voice Service Guide*

This document describes Passport’s digital circuit multiplication equipment (DCME) voice service, including the features and characteristics of the DCME voice service, how to provision and maintain the DCME voice service on a Passport node, and how to monitor and troubleshoot the DCME voice service.

241-7401-765 *Passport 7400 Remote Server Agent Guide*

This document contains an overview of the RSA and its role in Passport 4400 and Passport 7400 interworking. This document also contains procedures for installing, provisioning, and troubleshooting the RSA.

241-7401-770 *Passport 7400 HDLC Transparent Data Service Guide*

This document describes the Passport HDLC Transparent Data Service (HTDS).

241-7401-775 *Passport 7400 Bit Transparent Data Service Guide*

This document describes the Passport Bit Transparent Data Service (BTDS). The Bit Transparent Data Service (BTDS) provides a means of transmitting any continuous bit-rate data, such as video or Bisync.

241-5701-780 *Passport 7400, 15000, 20000 Packet Voice Gateway Technology Fundamentals*

This document contains descriptive information for switched and non-switched packet voice gateway.

241-5701-781 *Passport 7400, 15000, 20000 Configuring Non-Switched Packet Voice Gateway*

This document contains procedural information for configuring non-switched packet voice gateway

241-5701-782 *Passport 7400, 15000, 20000 Configuring Switched Packet Voice Gateway*

This document contains procedural information for configuring switched packet voice gateway using ATM or IP.

IP guides

Passport IP information can be found in the following documents:

- “241-5701-805 Passport 7400, 15000, 20000 Understanding IP” (page 30)
- “241-5701-810 Passport 7400, 15000, 20000 Configuring IP” (page 31)
- “241-5701-581 Passport 7400, 15000, 20000 Basics: VPN Fundamentals” (page 31)
- “241-5701-582 Passport 7400, 15000, 20000 VPN Configuration Management” (page 31)

241-5701-805 *Passport 7400, 15000, 20000 Understanding IP*

This document contains descriptive information about the implementation of IP and virtual routers on Passport, routing protocols, IP services, and access media.

241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*

This document contains procedural information about IP and virtual routers, routing protocols, IP services, and access media.

241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals*

This document describes the terminology associated with Passport VPN services.

241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*

This document describes the procedures required to configure Passport VPNs over frame relay, GigE, and ATM.

Frame Relay guides

Passport Frame Relay information can be found in the following documents:

- “241-5701-901 Passport 7400, 15000, 20000 Frame Relay Fundamentals” (page 31)
- “241-5701-902 Passport 7400, 15000, 20000 Configuring Frame Relay” (page 32)
- “241-5701-905 Passport 7400, 15000, 20000 Frame Relay UNI Summary Card” (page 32)
- “241-5701-915 Passport 7400, 15000, 20000 Frame Relay NNI Summary Card” (page 32)
- “241-5701-920 Passport 7400, 15000, 20000 Frame Relay to ATM Interworking Guide” (page 32)

241-5701-901 *Passport 7400, 15000, 20000 Frame Relay Fundamentals*

This document contains a description of the Passport Frame Relay service and guidelines for network engineering. This guide also contains information on how to monitor and troubleshoot the Frame Relay operating environment.

241-5701-902 *Passport 7400, 15000, 20000 Configuring Frame Relay*

This document contains instructions for installing and provisioning cards, ports, and software for Passport Frame Relay service. This guide also contains procedures for monitoring and troubleshooting Passport Frame Relay.

241-5701-905 *Passport 7400, 15000, 20000 Frame Relay UNI Summary Card*

This document contains quick reference information on the Frame Relay UNI frame format and commands.

241-5701-915 *Passport 7400, 15000, 20000 Frame Relay NNI Summary Card*

This document contains quick reference information on the Frame Relay NNI frame format and commands.

241-5701-920 *Passport 7400, 15000, 20000 Frame Relay to ATM Interworking Guide*

This document contains a description of the Passport Frame Relay to ATM (FR-ATM) interworking function (IWF) and its implementation as a gateway and interworking service. This document also contains instructions on provisioning the interworking function, monitoring components and connections, and troubleshooting, and information on deployment and migration.

Ethernet guide

Passport Ethernet information can be found in the following document:

- “241-1501-850 Passport 15000, 20000 Ethernet Service Operations Configuration” (page 33)

241-1501-850 *Passport 15000, 20000 Ethernet Service Operations Configuration*

This document describes the Passport Ethernet service and how to deploy it over an ATM backbone, as well as how to configure the Ethernet service using a direct connection or the performance enhancement solution. Traffic management and troubleshooting information specific to the Ethernet service is also included in this document.

Chapter 2

Passport document numbering

Each of the Passport documents has a unique identification number. You can find this number at the bottom of each page and in the front and back matter of the documents. This number is structured in the following way:

241-XXXX-YYY

or

NNXXXXX-YYY

where:

<XXXX> is the layer number.

<YYY> is the key number.

For information on the layer numbers, refer to “Layer numbers” (page 35).

For information on the key numbers, refer to “Key numbers” (page 36).

Some Passport documents are renumbered and renamed from one release to the next. For more information on the changes in the documentation suite for this release, refer to the 241-5701-000 *Passport 7400, 15000, 20000 What's New in Passport Documentation*.

Layer numbers

Layer numbers uniquely identify which product the document is associated with. You will find the following layer numbers on documents in the Passport documentation suite:

- 7401 for documents that apply to the Passport 7400 product

- 1501 for documents that apply to the Passport 15000 and 20000 products
- 5701 for documents that apply to all three Passport products. For example, 241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide* applies to the Passport 7400 and to the Passport 15000 and 20000 products.
- 10600 for documents that apply to Passport 7400, Passport 15000, Passport 20000 and other Nortel Networks' products like Preside Multiservice Data Manager (MDM).

Key numbers

The key numbers uniquely identify the functional areas to which each of the documents belong. The documentation suite has been divided into the following functional areas:

- product fundamentals (key numbers: 000 to 099)
- planning and engineering (key numbers: 100 to 199)
- hardware installation and maintenance (key numbers: 200 to 249)
- software installation and commissioning (key numbers: 250 to 299)
- network management system administration (key numbers: 300 to 349)
- security management (key numbers: 350 to 399)
- core networking (key numbers: 400 to 499)
- fault management (key numbers: 500 to 549)
- performance management (key numbers: 550 to 599)
- configuration management (key numbers: 600 to 649)
- accounting management (key numbers: 650 to 699)
- service guides (key numbers: 700 to 999)

Passport 7400, 15000, 20000 Documentation Guide

Release 5.2

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