NORTEL NETWORKS

Passport 7400, 15000, 20000

What's New in Passport Documentation

241-5701-000

Passport 7400, 15000, 20000

What's New in Passport Documentation

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Chapter 1
New features for PCR 5.2

This section lists the new features for this release of Passport 7400, Passport 15000, and Passport 20000 that impact the documentation suite. This section also provides a description of each feature and explains how it impacts the product and the user.

> ***Note:*** Some new features may be documented but are not yet supported. For feature support details, see the PCR5.2 Release Notes.

See the following sections for the descriptions about the new features. To find out the feature impacts on and other changes to the documentation suite, see the section “Changes to the documentation suite” (page 23).

2pSTM1eCh ATM/IMA/CES FP

This feature adds a new double slot FP (NTNQ91AA) to the Passport 7400 platform. It is a channelized 2-port STM-1 electrical FP, supporting termination of CES, IMA, and ATM over embedded E1 channels. 1:1 equipment protection is offered via the STM-1 electrical sparing panel (NTPS92AA). Sparing is hot for ATM and warm for IMA and CES services.

8pDS1 HTDS/BTDS

This feature introduces support of BTDS and HTDS on Passport 7400 8-port DS1 (8pDS1) interface in the PCR stream. This feature is a Test and Characterization feature of the capability which exists on other Passport 7400 cards such as 8pV11, 8pV35, 4pDS1, and 4pE1.

Note: The Passport 7400 8pDS1 (NTNQ18xx) FP is the replacement technology FP for the Passport 7400 4pDS1 (NTNQ17xx) FP which has been Manufactured Discontinued (August 21, 2001) with an end-of-life of December 31, 2004.

ATM on MS3 16p OC3/STM1 FP

This feature introduces the new 16-port OC-3/STM-1 MS3 (NTHW44AA) Function Processors which evolves Passport's ATM line of FPs (for example, 4-port OC-3/STM-1) and the SFP optics (MM SR, SM IR, and SM LR).

The hardware is designed to support both ATM and POS. The software in PCR5.2 provides only the ATM capabilities available on the existing 16-port OC-3/STM-1 FP with additional enhancements, mainly in the areas of Traffic Management and Statistics. Key capabilities of this FP include:

- Carrier Grade attributes such as SONET APS/SDH MSP (1+1 inter-FP line sparing, Equipment Protection)
- Hitless Software Migration.
- Small Form Pluggable (SFP) optics (MM SR, SM IR, and SM LR)

This feature supports the full suite of UNI and NNI protocols and can be used as an access or trunking FP.

CAS Usability Enhancements

This feature introduces the following enhancements:

- Instance filtering:
  Passport wildcarding is enhanced to allow filtering of component instances based on wild-carded patterns. This filtering reduces the volume of data that the user must search through. It also increases the performance for these commands, since fewer responses need to be formatted, sent off-switch, and handled by off-switch management tools.
- Performance interface:
  A new interface is provided to enable applications to efficiently filter based on instance values, including wild-carded patterns. Applications converted to use this new interface experience increased performance of wild-carded list and display commands.

- Find Verb:
  A new verb is provided to return all available components that can be linked to a given component or component class. This command improves efficiency in determining components available for linking, but also enables increased MDM scalability by reducing the need for MDM to maintain an off-switch configuration database for every Passport.

Clock sync revert enhancement

This feature introduces new options for behavior in reverting from a secondary or tertiary clock source to a primary clock source. It does not change the behavior upon initial switchover from a primary clock source to a secondary or tertiary clock.

The Clock synchronization control is moved from the port to the network synchronization component, a manual revert option is introduced, and an automatic reversion timer is introduced. This feature also introduces options to accommodate clock source changes due to degraded circuits (not just due to failed circuits).

DiffServ for Virtual IP Router On GigE

This feature adds support of the DiffServ model to the GigE MS3 FP, which allows packet per-hop behavior (PHB) to be determined at GigE ingress through Differentiated Services Code Point (DSCP) and port classification. That is, PHB determined by the content of the DSCP field of the IP header or the instance of the GigE port. The DSCP to PHB mapping is determined on a per-flat-VR basis, with support of up to 24 unique PHBs per VR, up to a maximum number of VRs supported by the GigE FPs. This is an extension of the DiffServ model done in PCR4.2 being applied to GigE over MS3 which is primarily for Wireless.

EuroISDN on 4pMVPe

This feature introduces support of the MVP VNET EuroISDN signaling protocol to the 4-port E1 MVPe FP. With this feature, the 4pMVPe has feature functionality equivalent to that already supported on the 1-port E1MVPe FP. The Passport implementation of EuroISDN provides basic call control and support of supplementary services.

EuroISDN is a common implementation of ISDN signaling standards that includes the standard implementation, as well as the German and Austrian variants.

Frame Link Monitoring for 1port STM1

This feature provides the ability to differentiate between physical line failure and customer premises equipment failure in the case of a continuity failure at the access to a Passport Frame Relay switch. This is achieved by monitoring the TDM a-bit information received.

> ***Note:*** In this case, the a-bit refers to the signaling information received as part of TDM framing. An SNMP MIB attribute is provided which allows the operator to determine the state of the access link.

Fully compliant G.841 Annex

This feature introduces support for ITU-T G.841 Annex B Multiplex Section Protection for the 16 port OC-3/STM-1 Function Processor. This enables the Passport to interwork with networks supporting G.841 Annex B MSP. This protocol implements a 1+1 bidirectional, non-revertive protection variant of SDH interfaces as described in the standards. This capability only applies to SDH ports on 16pOC3 and is limited to 16pOC3SmIrAtm (NTHW21AA, NTHW24AA, NTHW31AA) FP types only.

Hitless OSPF CP/XC SO: IP opt

This feature extends the Carrier Grade content that was delivered in PCR5.1 for RFC2764, which delivered hitless OSPF for CP IP VPN Extender Card (XC) switchover on ATM MPE media. This feature increases media support for this capability, to include IP optimized DLCI. It also augments the carrier grade capabilities by providing support for hitless FP switchover on optical ATM MPE media.

Hot Sparing 2pSTM1eATM

This feature adds hot ATM protection capabilities to the 2pSTM1eAtm (NTNQ90AA) FP in Passport 7400. It requires that the FP be 1:1 protected via a sparing panel (NTPS92AA). In the event of an FP failure, all ATM connections are retained and only incur a small data outage, since all dynamic data is logged on the standby FP.

IP & MPLS on 2pSTM1eATM

This feature introduces the support of IP and MPLS on the 2-port STM-1 electrical clear channel (2pSTM1eATM) FP.

In PCR4.2, the Passport 7400 2-port STM-1 electrical clear channel (2pSTM1e) FP was introduced. This FP takes the existing 2-port OC-3/STM-1 optical clear channel FP and introduces it with an electrical interface (75 ohm SMZ (BT43) connectors). In PCR4.2, this electrical version supports all capabilities of the optical version with the exception of IP and MPLS.

IP Tunnel Optimization

This feature applies to the RFC2764 VPN solution on Passport. This feature distributes the IP VPN tunnel exit processing to the access cards from the trunk card. This reduces the amount of processing required by the trunk card and thus increases throughput by distributing the tunnel exits and the work associated with exiting a tunnel to each access card. This feature increases forwarding capacity on the trunk card. It also provides support for increased number of router interfaces, thereby increasing the number of CPE routers that a Passport IP VPN node can support.

IP VPN Delay Measurements

For the RFC2764 VPN solution, this feature enables Passport IP Carriers to validate IP VPN SLAs by collecting round trip delay measurements between VCGs participating in the IP VPN network. When the feature is enabled, by default, measurements are taken between all PE VCGs in the network for each CoS. Alternatively, the service provider can manually configure the VCG peers in which round trip delay measurements are be to be taken.

IS-IS

This feature introduces Integrated IS-IS to the Passport platform. IS-IS is an IP routing protocol suitable for use in large routing environments and supports the introduction of RFC 2547 on Passport. It is a practical alternative to the OSPF routing protocol and is the protocol of choice for a number of service providers. IS-IS is a link state protocol. It provides the capability to support hierarchical network architectures for scaling in large networks.

LDP-DU on ATM / LDP-DU for Gigabit Ethernet

These features introduce the MPLS Label Distribution Protocol (LDP) in Downstream Unsolicited (DU) mode on the Passport platform. The first networking solution that will use the MPLS LDP-DU signaling protocol is RFC2547. LDP-DU is used to establish MPLS transport tunnels between the Passport provider edge (PE) nodes. VPN user data is transported in these tunnels between the different VPN sites. The feature includes support for Passport 15000 and 20000 LSR (P-node) and the ability to interwork with LDP DoD requests.

mBGP for Route Distribution

This feature adds the capability to support multi-protocol BGP for both the RFC2547 and RFC2764 solutions on Passport. For RFC 2764, the addition mBGP (as an alternative to using iBGP for customer route distribution) provides for improved network scalability by reducing the number of BGP instances and BGP peers. It does this by removing the need for establishing Interior BGP peers on every cVR within a VPN. For RFC 2547, mBGP provides for the distribution of customer routes between VRFs in a scalable fashion. For both layer 3 VPN solutions, the feature provides the ability to add import/export policies for VPN routes for better customer and carrier control.

MCS MD for FR trunking

Starting in PCR5.2, general market support of the following two Frame Relay trunking capabilities will be manufactured discontinued:

- Frame Relay over DPRS over MCS over PORS over FrameCell Trunks
- Frame Relay over DPRS over MCS over PORS over ATM Trunks

Support for the MCS manager, which is required to support FRF.5, is maintained; this allows FRF.5 support to continue to be supported on the Passport platform.

Multi Virtual IP Router on GigE

This feature adds support for Multiple VRs on a GigEMS3 FP. The configuration is limited to a Virtual IP Router topology. This feature is an extension of the Basic IP over GigE model introduced in PCR5.1.

PIM-SM

This feature introduces support of Protocol Independent Multicasting - Sparse Mode version 2 (PIM-SMv2) as an IP Multicast routing protocol based on RFC2362. It also supports Internet Group Management Protocol version 2 (IGMPv2) which is used by multicast clients and servers to join or advise multicast groups.

PIM-SM works with various unicast routing protocols such as OSPF. This feature does not maintain a separate routing table for Reverse Path Forwarding (RPF) checking.

It has the following characteristics:

- data driven
- uses unicast routing table
- configurations elects rendezvous points (RPs)
- data and joins are forwarded to RP building shared tree

Point-to-Multipoint SPVCs

This feature allows for the provisioning of Point-to-multipoint (PMP) connections at the source end of the SPVC, thereby extending the automatic retry and re-establishment capabilities of Point-to-point SPVCs to Point-to-multipoint connections. The PMP connection can be described as a tree where information is multicasted uni-directionally from one calling user, or root, to a set of called users, or leaves. Network resources are efficiently utilized by means of branching mechanisms whereby connection resources are shared from the root (PMP SPVC) towards the leaves (Parties) up until the point where the routing topology requires branching. Significant OPEX savings over PMP PVC connections are realized as a result of simpler provisioning since the entire PMP connection can be provisioned at the root. PMP SPVC connections also contain retry functionality that eliminates the need for backup connections, such as those required for PMP PVCs.

PQC12-based 4pDS3Ch FrTrace Hardware

This feature allows network operators to perform remote monitoring of Frame Relay connections. This feature completes the feature set on the 4pDS3Ch FP to bring the PQC12-based version of this FP to feature equivalence with its PQC2-based counterpart.

RADIUS – Support of Roles

This feature extends the existing RADIUS support on Passport with new options to increase deployment flexibility. The first option is the addition of locally defined (on-switch) roles, allowing users with the same set of access privileges to be grouped together. Prior to this feature, the support of RADIUS on Passport did not allow users to be assigned different access privileges for different Passports. With the introduction of roles, this capability is available for users authenticated via RADIUS, in addition to those defined locally.

The second option supports the concept of remote authentication with local authorization. This allows customers to store user account information locally on the Passport, but have password information stored centrally. This is useful for customers wishing to migrate to RADIUS gradually or increase their flexibility for password management.

RFC2547

This feature introduces RFC 2547 VPNs (BGP/MPLS VPNs) to the Passport platforms. RFC 2547 uses Border Gateway Protocol (BGP) extensions to distribute Virtual Private Network (VPN) routing information and MPLS to transport user data between VPN sites. To enable multiple VPN services on a single provider edge (PE) node, multiple VPN Routing and Forwarding (VRF) tables must be supported. The Passport implementation ensures that each VRF is provided memory protection and CPU scheduling fairness. The core of the service provider network does not need to store any client VPN routing information resulting in a very scalable VPN solution.

RSVP-TE LER on GE

This feature provides RSVP-TE signaling Label Edge Router (LER) capabilities developed on MS3 Gigabit Ethernet FP. The Source and destination LER functionality support enables users to originate, terminate, and maintain LSP Tunnels to a particular destination address by means of the RSVP-TE signaling protocol through a multi-vendor MPLS network cloud.

This implementation allows bandwidth reservation during Label Switched Path (LSP) setup and supports two service classes: Controlled-Load Service (CLS) and Null Service Type. RSVP-TE uses IntServ parameters to map Quality of Service.

RSVP-TE supports both the strict and loose types of Explicitly Routed Label Switched Paths (ER-LSPs). These ER-LSPs are supported as point-to-point only and are unidirectional. All LSP Tunnels established by a Passport LER must start with the first hop provisioned as strict.

> ***Note:*** PCR5.2 provides limited support for Opaque LSA's for OSPF-TE. The limited support for OSPF-TE Opaque LSA's exchanges LSA information but does not provide dynamic TE based bandwidth updates. As such, until Passport supports an IGP TE, RSVP-TE interoperability is restricted.

Virtual IP Router IP Multicast

This feature supports IP Multicasting over Virtual IP Router (VIPR). Multiple VIPR enabled with IP multicast can be used to form a Premium VPN running both unicast and multicast traffic.

Passport supports IGMPv2 (RFC2236) and PIM-SMv2 (RFC2362) with Cisco interoperability.

Internet Group Management Protocol (IGMP) is a group membership protocol for routers to learn about the presence of group members on their directly attached subnetworks. IGMP is a integral part of IP. It is required to be implemented by all hosts wishing to receive IP multicasts.

Software data path will be used on Passport for multicasting traffic. Typical applications are video conferencing, video surveillance, and file server broadcasting.

VRRP on PP7400 2p100baseT

This feature introduces support for the Virtual Router Redundancy Protocol on the Passport 7400 2p100baseT FP. This feature is compatible with both Virtual IP Router (VIPR) service and the RFC7264-based IP-VPN (customer VRs with VCG aggregation) service. This feature is used to provide dynamic election of a virtual router (called master) among any one of the Virtual Router Redundancy Protocol (VRRP) routers on a LAN. It eliminates the single point of failure inherent in the static default router environment. It allows up to 255 virtual routers per IP port of a LAN. The Passport VRRP implementation can coexist with any other VRRP devices on the local LAN segment that is compliant with the VRRP RFC2338.

This feature supports 10/100baseT Ethernet and critical IP WAN address (Master VR remains up).

VR-RFC2547 Interworking

This feature enables both RFC2547 and RFC2764 VPNs to be configured on the Passport platform at the same time. It ensures that both VPN types can be connected together to extend the reach of a VPN that spans both solutions. This is accomplished with an external connection between an RFC2764 VR and an RFC2547 VRF. A dynamic routing protocol is then enabled on this connection to exchange customer routing information between the two VPN domains.

Chapter 2
Changes to the documentation suite

This section identifies changes to the Passport documentation suite for the Passport Carrier release 5.2 (PCR 5.2). For additional feature information and last-minute post-publication changes, see the Release Notes for PCR 5.2.

This document includes information about the following topics:

New documents

Six new documents were added to the Passport documentation suite for this release.

The 241-1501-240 *Passport 15000, 20000 Hardware Installation, Maintenance and Upgrade* was added as part of the effort to restructure information in the documentation suite related to Passport 15000 and 20000 hardware.

The following three documents was created as part of the effort to restructure the security content in the Passport documentation suite to increase usability.

- NN10600-605 *Passport - MDM Network Security: Operations*'
- NN10600-606 *Passport - MDM Network Security: User Access Configuration*
- NN10600-607 *Passport - MDM Network Security: Secure Communications Configuration*

  Note: These documents are available in both the Passport documentation suite, as well as the Preside Multiservice Data Manager (MDM) documentation suite.

The following two documents were created as part of the effort to restructure information in the Passport documentation suite related to IP Virtual Planning Networks.

- 241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals*'
- 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*

For more information about the restructure effort, see "Restructured documents" (page 25).

Removed documents

The documents listed below were removed from the suite. The information from these documents was restructured and moved into other documents.

- 241-1501-210 *Passport 15000, 20000 Hardware Installation Guide*
- 241-1501-215 *Passport 15000, 20000 Hardware Maintenance Guide*
- 241-1501-930 *Passport 15000, 20000 Frame Relay Over IP-BNX Interworking Guide*
- 241-5701-605 *Passport 7400, 15000, 20000 User Access Guide*
- 241-5701-820 *Passport 7400, 15000, 20000 IP Virtual Private Network Planning and Application*
- 241-7401-925 *Passport 7400 Frame Relay ISDN Switched Access Guide*

Renamed and renumbered documents

The table “Renamed and renumbered documents for PCR 5.2” (page 25) lists all documents that were renamed or renumbered for this release.

Table 1
Renamed and renumbered documents for PCR 5.2

Original document name and number	New document name and number
241-5701-440 *Passport 7400, 15000, 20000 Frame Relay Managed Cut-through Switching Guide*	241-7401-440 *Passport 7400 Frame Relay Managed Cut-through Switching Guide*

Restructured documents

The following documents were restructured, in full or in part, into a modular, task-based format to improve the usability of the information. For a description of the types of changes made as part of this work, see “Restructure details” (page 26). To determine which of these changes listed there were made to each of the following documents, see the “What’s new in this document” section of each one.

- 241-1501-205 *Passport 15000, 20000 Site Requirements and Preparation Guide*
- 241-5701-405 *Passport 7400, 15000, 20000 Call Server Guide*
- 241-5701-410 *Passport 7400, 15000, 20000 Call Redirection Server Guide*
- 241-5701-415 *Passport 7400, 15000, 20000 Hunt Group Server Guide*
- 241-5701-420 *Passport 7400, 15000, 20000 Trunking Guide*
- 241-5701-445 *Passport 7400, 15000, 20000 Multiprotocol Label Switching Guide*
- 241-5701-510 *Passport 7400, 15000, 20000 Trace Guide*
- 241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
- 241-5701-720 *Passport 7400, 15000, 20000 AAL1 Circuit Emulation Guide*

- 241-5701-730 *Passport 7400, 15000, 20000 Inverse Multiplexing for ATM Guide*
- 241-5701-920 *Passport 7400, 15000, 20000 Frame Relay to ATM Interworking Guide*
- 241-7401-480 *Passport 7400 Multiservice Passport Access Network Link Guide*
- 241-7401-750 *Passport 7400 Voice Transport Guide*
- 241-7401-755 *Passport 7400 Voice Networking Guide*
- 241-7401-760 *Passport 7400 DCME Voice Service Guide*
- 241-7401-765 *Passport 7400 Remote Server Agent Guide*
- 241-7401-770 *Passport 7400 HDLC Transparent Data Service Guide*
- 241-7401-775 *Passport 7400 Bit Transparent Data Service Guide*

Restructure details

The following list describes the types of changes made to documents that underwent restructuring in PCR5.2:

- Procedures were grouped into higher-level tasks.
- Task flow charts were added to improve navigation through tasks and procedures, to set tasks and procedures in context, and to provide a visual representation of prerequisites and configuration paths.
- Procedures were restructured into a modular format.
- Purpose statements were added to tasks and procedures to provide context.
- Prerequisites were divided into those applicable to an entire task. those applicable only to a specific procedure, and those applicable only to a specific procedure step. Prerequisites applicable to an entire task were placed in the appropriate task-level prerequisite section, prerequisites applicable only to a specific procedure were placed in the prerequisites section of the procedure, and prerequisites applicable only to a specific step were placed in the step.
- ‘Where’ statements were removed from procedures and the content placed in the ‘Variable values’ table following the procedure.

- A ‘Procedure Job Aid’ section was added to each procedure where appropriate. This consists of information that supports the procedure, such as a component hierarchy figure, a checklist, or a diagram.
- Conceptual and reference information were removed from procedures, placed in the appropriate conceptual or reference section, and cross-referenced from the procedure where appropriate. If no appropriate conceptual or reference section existed in which to place such information removed from the procedures, the information was placed in temporary sections called ‘Supporting information’ and ‘Additional information’ at the end of the affected chapter. Only supporting information is cross-referenced from the procedure. The supporting and additional information sections will be removed when an appropriate location for the information is created.

Feature updates

This section lists the PCR 5.2 documents that were modified with new feature information and describes how to access the new information in those documents.

The table “Feature updates” (page 28) lists the documents that were updated for each PCR 5.2 feature listed. For any features that did not impact the documentation suite, the table identifies these features as well.

Note: Some features may be documented but are not yet supported. For feature support details, see the Release Notes for PCR 5.2.

To find the new feature information in a document, see the “What’s new in this document” section in that document. That section provides cross-references that lead you directly to the new information.

The table also indicates the documentation status of each feature, whether Draft, Preliminary, or Standard. For an explanation of information quality and status definitions, see the 241-5701-001 *Passport 7400, 15000, 20000 Documentation Guide*.

The following reference documents were updated for many of the features listed in the feature updates table. They are not included in the table, in the interests of keeping it as short as possible.

- 241-5701-005 *Passport 7400, 15000, 20000 List of Terms*
- 241-5701-030 *Passport 7400, 15000, 20000 Overview*
- 241-5701-060 *Passport 7400, 15000, 20000 Components*
- 241-5701-500 *Passport 6400, 7400, 15000, 20000 Alarms*

Table 2
Feature updates

Feature name	Documentation status	Documents updated
PQC12-based 4pDS3Ch FrTrace Hardware	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
RSP2 Firmware for IP over MPLS over PPP	N/A	No documentation suite impact.
FrameCore SCP support and IP service API	N/A	No documentation suite impact.
IP over POS on MS3	N/A	No documentation suite impact.
ATM Performance Monitoring VPTs on PP7K	N/A	No documentation suite impact.
CIT Core Restructuring	N/A	No documentation suite impact.
Passport 7000, 2 port STM1 Electrical Channelized CES/ ATM/IMA FP	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference* 241-7401-200 *Passport 7400 Hardware Description* 241-7401-242 *Passport 7400 FP Cabling Specifications*
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Table 2 (continued)
Feature updates

Feature name	Documentation status	Documents updated
mBGP for Route Distribution	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management* 241-5701-805 *Passport 7400, 15000, 20000 Understanding IP*
Hot Sparing 2pSTM1eATM	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference* 241-5701-710 *Passport 7400, 15000, 20000 ATM Configuration Guide*
IP & MPLS on 2pSTM1eATM	Standard	241-5701-445 *Passport 7400, 15000, 20000 Multiprotocol Label Switching Guide* 241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*
IP Tunnel Optimization	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
IP VPN Delay Measurements	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
RFC2547	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
Passport MPLS support of RFC2547	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
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Table 2 (continued)
Feature updates

Feature name	Documentation status	Documents updated
IS-IS	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
VR-RFC2547 Interworking	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
RSVP-TE LER on GE	Standard	241-5701-445 *Passport 7400, 15000, 20000 Multiprotocol Label Switching Guide*
Passport Diagnostics and Performance Analysis Environment	N/A	No documentation suite impact.
LDP-DU on ATM / LDP-DU for Gigabit Ethernet	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
Activation Journal Log History	N/A	No documentation suite impact.
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Table 2 (continued)
Feature updates

Feature name	Documentation status	Documents updated
ATM on MS3 16p OC3/STM1 FP	Standard	241-1501-200 *Passport 15000, 20000 Hardware Description* 241-1501-205 *Passport 15000, 20000 Site Requirements and Preparation Guide* 241-1501-240 *Passport 15000, 20000 Hardware Installation, Maintenance and Upgrade* 241-1501-850 *Passport 15000, 20000 Ethernet Service Operations Configuration* 241-5701-520 *Passport 7400, 15000, 20000 Troubleshooting and Testing* 241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide* 241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference* 241-5701-700 *Passport 7400, 15000, 20000 ATM Overview* 241-5701-705 *Passport 7400, 15000, 20000 ATM Traffic Management Fundamentals* 241-5701-706 *Passport 7400, 15000, 20000 ATM Traffic Shaping and Policing* 241-5701-707 *Passport 7400, 15000, 20000 ATM Queuing and Scheduling* 241-5701-710 *Passport 7400, 15000, 20000 ATM Configuration Guide* 241-5701-715 *Passport 7400, 15000, 20000 ATM Monitoring and Troubleshooting Guide*
Passport Crash Handling Enhancements	N/A	No documentation suite impact.

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Table 2 (continued)
Feature updates

Feature name	Documentation status	Documents updated
Virtual IP Router IP Multicast	Standard	241-5701-805 *Passport 7400, 15000, 20000 Understanding IP* 241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*
Protocol Independent Multicast (PIM) - Sparse Mode	Standard	241-5701-805 *Passport 7400, 15000, 20000 Understanding IP* 241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*
Software MIgration for Unprotected SONET Bridged INterface pairs - Propagation	N/A	No documentation suite impact.
Passport RADIUS - Support of Roles	Standard	NN10600-605 *Passport - MDM Network Security: Operations* NN10600-606 *Passport - MDM Network Security: User Access Configuration* NN10600-607 *Passport - MDM Network Security: Secure Communications Configuration*
CAS Usability Enhancements	Standard	241-5701-050 *Passport 7400, 15000, 20000 Commands* 241-5701-053 *Passport 7400, 15000, 20000 Command Summary Card*
Passport DCS Statistics Performance	N/A	No documentation suite impact.
FMIP Logging	N/A	No documentation suite impact.
Passport DiffServ for RFC2547	Standard	241-5701-581 *Passport 7400, 15000, 20000 Basics: VPN Fundamentals* 241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
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Table 2 (continued)
Feature updates

Feature name	Documentation status	Documents updated
Passport IP DiffServ for flat VR	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference* 241-5701-805 *Passport 7400, 15000, 20000 Understanding IP* 241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*
CDL Re-structuring and Colon Syntax Support For RFC2547	N/A	No documentation suite impact
Passport L2 VPN ATM Transport	N/A	No documentation suite impact.
VRRP on PP7400 2p100baseT	Standard	241-5701-805 *Passport 7400, 15000, 20000 Understanding IP* 241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*
T&C Shasta interworking	N/A	No documentation suite impact.
DiffServ for Virtual IP Router On GigE	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference* 241-5701-805 *Passport 7400, 15000, 20000 Understanding IP* 241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*
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Table 2 (continued)
Feature updates

Feature name	Documentation status	Documents updated
Point-to-Multipoint SPVCs	Standard	241-5701-700 *Passport 7400, 15000, 20000 ATM Overview* 241-5701-702 *Passport 7400, 15000, 20000 ATM Routing and Signaling Fundamentals* 241-5701-710 *Passport 7400, 15000, 20000 ATM Configuration Guide* 241-5701-715 *Passport 7400, 15000, 20000 ATM Monitoring and Troubleshooting Guide*
Hitless OSPF CP/ XC SO: IP opt	Standard	241-5701-805 *Passport 7400, 15000, 20000 Understanding IP*
Introduction of 6mAppServ Card Type	N/A	No documentation suite impact.
Fully compliant G.841 Annex	Standard	241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide* 241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Frame Link Monitoring for 1port STM1	Standard	241-5701-901 *Passport 7400, 15000, 20000 Frame Relay Fundamentals* 241-5701-902 *Passport 7400, 15000, 20000 Configuring Frame Relay*
Multi Virtual IP Router on GigE	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference* 241-5701-805 *Passport 7400, 15000, 20000 Understanding IP*
EuroISDN on 4pMVPe	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference* 241-7401-755 *Passport 7400 Voice Networking Guide*
(Sheet 7 of 8)		

Table 2 (continued)
Feature updates

Feature name	Documentation status	Documents updated
MCS MD for FR trunking	Standard	241-7401-440 *Passport 7400 Frame Relay Managed Cut-through Switching Guide* 241-5701-920 *Passport 7400, 15000, 20000 Frame Relay to ATM Interworking Guide*
BTDS and HTDS introduced on 8pDS1 FP	Standard	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Clock sync revert enhancement	Standard	241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide*
(Sheet 8 of 8)		

Customer change requests addressed

The table "Customer CR updates" (page 35) lists the customer change requests that were addressed in the PCR 5.2 documentation. The table also states which documents were updated. To locate the changed information in a particular document, see its section called "What's new in this document".

Table 3
Customer CR updates

CR number and request title	Documents updated
Q00586431, NTP correction: v54remoteloopbacktest is supported on MSA	241-5701-520 *Passport 7400, 15000, 20000 Troubleshooting and Testing*
Q00586431-01, NTP correction: v54remoteloopbacktest is supported on MSA	241-5701-520 *Passport 7400, 15000, 20000 Troubleshooting and Testing*
Q00592539, Documentation is missing reference to NCS being supported for several FPs	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Q00595622, PCR2.2.5 CBR Shaping Rate is not correct	241-5701-706 *Passport 7400, 15000, 20000 ATM Traffic Shaping and Policing*
(Sheet 1 of 4)	

Table 3 (continued)
Customer CR updates

CR number and request title	Documents updated
Q00600611, Documentation: Need to update 241-5701-706 with min shaping rate for OC12	241-5701-706 *Passport 7400, 15000, 20000 ATM Traffic Shaping and Policing*
Q00600893, NTP Need to update AAL1 info re: supported networking options	241-5701-720 *Passport 7400, 15000, 20000 AAL1 Circuit Emulation Guide*
Q00627003, NTP for 15K: Combination of BITS and line timing references	241-1501-200 *Passport 15000, 20000 Hardware Description*
Q00630768, Documentation: NTP 241-5701-615 pg 213 state 4pDS3ChAtm support frAtm service	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Q00642473, NTP 241-5701-910 + 241-5701-900: DLCI stats when DLCI is in Local Loopback mode	241-5701-901 *Passport 7400, 15000, 20000 Frame Relay Fundamentals* 241-5701-902 *Passport 7400, 15000, 20000 Configuring Frame Relay*
Q00643576, Documentation correction: 2pEth100BaseT ports can be linked to different VR's.	241-5701-810 *Passport 7400, 15000, 20000 Configuring IP*
Q00643620, Documentation Correction: frame-tagging feature cancelled	No documentation suite impact.
Q00645198, NTP 241-5701-060: Dlci statistics in Local Loopback mode	241-5701-060 *Passport 7400, 15000, 20000 Components*
Q00645239, NTP 241-5701-702: no EBR signalling when exiting a PNNI network	241-5701-702 *Passport 7400, 15000, 20000 ATM Routing and Signaling Fundamentals*
Q00651424, Out of range value for lastDroppedRxCellConnection	241-5701-715 *Passport 7400, 15000, 20000 ATM Monitoring and Troubleshooting Guide*
Q00659374, Field:UMTS: Rich lab: VO V3: Packet: WG: LAPS prov instructions incorrect in NTP	241-5701-600 *Passport 7400, 15000, 20000 Configuration Guide*
Q00667243, PCR5.1CA trial: Fabric broadcastTestResults for 4pGbE	241-5701-520 *Passport 7400, 15000, 20000 Troubleshooting and Testing*
(Sheet 2 of 4)	

Table 3 (continued)
Customer CR updates

CR number and request title	Documents updated
Q00672553, CIVO:SN05:PT-IP:WCOM:IRV6:PMDM/PVG mismatch of alarms	241-5701-611 *Passport 7400, 15000, 20000 Data Collection Guide* 241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Q00674693, Feature for Non-Switched PVG	241-5701-780 *Passport 7400, 15000, 20000 Packet Voice Gateway Technology Fundamentals*
Q00679196, UMTS::V21: RNC: No information about alarm 70700150 related to CID	No documentation suite impact.
Q00680390, CIVO: SN05: Verizon: PP15K Doc:"secureFtpAuth1Only" feature causes node reset	NN10600-607 *Passport - MDM Network Security: Secure Communications Configuration*
Q00682965, V.11 high speed characteristics missing from NTPs	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Q00694060-01, CIVO:SN05:PT-AAL1 Need documentation for cleaning up old Passport loads from MDM	No documentation suite impact.
Q00702850, Documentation change requested for IPIFR connections with transfer priority 11.	241-5701-271 *Passport 7400, 15000, 20000 Network Management Connectivity*
Q00707925, NTP 241-5701-805 - Chap 18 IpTunnels SRC/DST address statement incorrect	241-5701-805 *Passport 7400, 15000, 20000 Understanding IP*
Q00726546, UMTS:V2.1W23:RNC:Missing description of 16 alarms on NTPs.	241-5701-500 *Passport 6400, 7400, 15000, 20000 Alarms*
Q00734534, NTP: using unchannelized vframer on 4pDS3ch	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Q00735280, SN05:PT-AAL1: Verizon PP15K: NTP 241-5701-500 for alarm 70410150	241-5701-500 *Passport 6400, 7400, 15000, 20000 Alarms*
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Table 3 (continued)
Customer CR updates

CR number and request title	Documents updated
Q00735308, SN05: PT-AAL1 Verizon PP15K: Doc change in NTP 241-5701-715 for ATM UNI sig	241-5701-715 *Passport 7400, 15000, 20000 ATM Monitoring and Troubleshooting Guide*
Q00742719, IMA links go down on Spared 4pDS3ChAtm when card inserted	241-1501-240 *Passport 15000, 20000 Hardware Installation, Maintenance and Upgrade*
Q00745546, NTP 241-5701-415 Hunt Group Server	241-5701-415 *Passport 7400, 15000, 20000 Hunt Group Server Guide*
Q00755046, Missing Laps configuration considerations from NTP	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Q00770163, CIVO: SN06 PT-IP Telus: Passport upgrade doc needs update	241-5701-272 *Passport 7400, 15000, 20000 Software Upgrade*
Q00772033, Beta: Draft NTP 241-5701-582 Incorrect	241-5701-582 *Passport 7400, 15000, 20000 VPN Configuration Management*
Q00779869, Documentation: Timeslot limitation on 4pE1 AAL1 cards	241-5701-615 *Passport 7400, 15000, 20000 FP Configuration Reference*
Q00782179, Static Subnetwork Route on IPIFR	241-5701-271 *Passport 7400, 15000, 20000 Network Management Connectivity*
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Other updates and changes

Passport Carrier documents are frequently updated with other changes that are not specific to a feature or customer CR. To determine the other changes made in a particular document, read its section called “What’s new in this document”.

Chapter 3
Documentation media available

This section describes the current delivery methods for Passport documentation:

Internet

Over the Internet, you can use Helmsman Express on the Nortel Networks web site to view, do a suite-wide search, or download documents in PDF format.

To register for access to Passport documents on Helmsman Express, contact your Nortel Networks account representative.

Intranet

You can install the Passport documents on a server in your own intranet to provide access to the documentation using the Helmsman software. Install the documents and Helmsman from the “Helmsman-based CD-ROM” (page 40).

Helmsman-based CD-ROM

The Helmsman-based CD-ROM contains the current release of Passport documentation in PDF format, viewable with the Helmsman software. The CD-ROM includes the Helmsman software as well as installation software for the PC, Unix (Sun and HP) and Macintosh platforms. Helmsman provides suite-wide search capabilities.

Installation instructions are provided on the CD-ROM.

Your Nortel Networks account representative needs to place an order for you to receive the CD-ROMs. Depending on which Performance Pack support package you have, you receive either one copy or up to five copies of the Helmsman-based CD-ROM.

Paper

You can purchase sets of Passport documentation in hardcopy format in binders, at extra cost. For more information or to purchase hard copies, contact your Nortel Networks account representative.

Passport 7400, 15000, 20000

What’s New in Passport Documentation

Release 5.2

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