

Part No. 317205-A  
June 2003

4655 Great America Parkway  
Santa Clara, CA 95054

# Addendum to the Release Notes for the Passport 8000 Series Switch Software Release 3.5

- [Additional documentation corrections](#)
- [Documentation for new features released in 3.5](#)
- [Related publications](#)
- [Hard-copy technical manuals](#)
- [How to get help](#)



**NORTEL**  
NETWORKS™

## Copyright © 2003 Nortel Networks

All rights reserved. June 2003.

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.

## Trademarks

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

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation.

Adobe and Acrobat Reader are trademarks of Adobe Systems Incorporated.

SSH is a registered trademark and SSH Secure Shell is a registered trademark of SSH Communications Security Corp ([www.ssh.com](http://www.ssh.com)). The use of these trademarks is permitted to describe a product that conforms to the SSH standard and protocol.

The asterisk after a name denotes a trademarked item.

---

## Introduction

This is an addendum to the release notes for the Nortel Networks\* Passport 8000 Series Switch Software Release 3.5 and describe the new features and CLI commands introduced in this release note described in the documentation or in the release notes.

## Additional documentation corrections

This section describes documentation corrections not noted in the Release Notes for the Passport 8000 Switch Series Software Release 3.5.

### Using the Packet Capture Tool (PCAP) 315023-A and 315023-B

Pages 16 and 21 incorrectly identify the company/company product *Ethereal* as *EtherReal*.

### Release Notes for the Passport 8000 Switch Series Software Release 3.5

The Release Notes for the Passport 8000 Switch Series Software Release 3.5 incorrectly state that the IGAP acronym is representative of the Internet membership Group Authentication Protocol. It should state that the acronym is representative of the Internet Group membership Authentication Protocol.

## Documentation for new features released in 3.5

This section describes new features introduced in Passport 8000 Switch Series Software Release 3.5 not documented in the release 3.5 documentation suite or in the release 3.5 release notes.

- [Source MAC filtering](#)
- [Access policies strict access functionality](#)

- [SNMP trap using the CLIP address](#)
- [SNA and user-defined VLANs extension to cover multiple DSAP and SSAP per VLAN](#)

### Source MAC filtering

This feature provides the functionality of filtering traffic based on a configured source MAC address using FDB filters. In previous releases, MAC filters could only be created to filter traffic based on the destination MAC address of a packet.

#### Changes in the CLI

Currently, there is an existing command for adding a fdb-filter and setting the destination discard mask. FDB filters are added using the `config vlan <id> fdb-filter add <mac> port <portlist>` command. Destination MAC discard ports are set on an already created fdb-filter using the `config vlan <id> fdb-filter notallowfrom add <mac> port <portlist>` command.

For the purpose of setting source MAC discard filter ports, a new optional parameter is introduced to the `config vlan <id> fdb-filter notallowfrom` command. The optional parameter can have the values

- `srcOnly` (which sets the source discard mask)
- `dstOnly` (which sets destination discard mask)
- `Both` (which sets both discard masks)

If the optional parameter is not specified, the system sets a destination discard mask (`dstOnly`) for the ports specified in the port list.

Ports may be removed from the source discard mask using the `config vlan <id> fdb-filter notallowfrom remove <mac> port <portlist>` command. This command also has the optional parameters `srcOnly`, `dstOnly` and `Both` for removing ports from source discard mask, destination discard mask and both masks respectively.

When ports are added or removed from the source/destination discard mask, it preserves the old value of the discard mask. The configuration of source mac filters is saved in the configuration file and settings are preserved across a reboot.

### Example

Add a fdb-filter for a specified mac on a particular port:

```
/config/vlan/1/fdb-filter# add 22:22:22:22:22:22 port 2/1
```

Set the source discard on that filter for a port list:

```
config/vlan/1/fdb-filter/notallowfrom# add 22:22:22:22:22:22
port 1/2,1/4 srcOnly
```

To view the information relating to the source/dest discard filter, you would use the CLI command:

```
Passport-8610:5# config/vlan/1/fdb-filter/notallowfrom# info
```

```
Sub-Context:
Current Context: add :
mac - 22:22:22:22:22:22
port - 2/1
Src Discard set - 1/2,1/4
remove : N/A
```

```
Passport-8610:5# show vlan info fdb-filter 1
```

```
=====
Vlan Filter
=====
```

```
VLAN MAC DST_DISCARD SRC_DISCARD
ID STATUS ADDRESS PORT SET SET
-----
```

```
1 permanent 22:22:22:22:22:22 2/1 1/2,1/4
```

## Changes in Device Manager

The feature of setting source discard mask for fdb filters is not supported by Device Manager. But you can still set destination discard masks on the ports from Device Manager.

Note that:

- If the MAC address for which a fdb-filter is added is a dynamically learned MAC address, the filter entry should be created on the same port on which the switch has learned the MAC entry.
- If the MAC address for which a fdb-filter is added, is a static fdb-entry, the static fdb-entry should be deleted before a filter entry can be created for the same MAC.
- If you have an IP filter on a port with port's default action set to `drop`, this port will show up in both "destination discard set" ports and in "source discard set" ports display output when you issue the CLI command `show vlan info fdb-filter <vlan Id>` for all the filter entries.

## Access policies strict access functionality

A new parameter `access-strict` has been added to the CLI access policy tree. This parameter, if set to `true`, grants access to the configured level only. This allows access policies to be created to allow only read only or only read write access.

### *Example*

```
config sys access-policy policy access-strict [true/false]
```

(The default value of `access-strict` is `false`)

If `access-strict` is set to `false`, the access policy will operate as before. A configured access level of `ro` will grant access to read only and above access levels.

If `access-strict` is `true`, a configured access level of `ro` will grant access to only read only access levels.

(Q00520275-04).

## SNMP trap using the CLIP address

The Circuit-less IP (CLIP) address can now be sent as Source IP address in the SNMP traps. An optional parameter `ip_source` is appended to the existing CLI command:

```
config sys set snmp trap-recv <ipaddr> <v1|v2> <commstr>
[<ip_source>]
```

where `<ip_source>` specifies the source IP address (CLIP address) of the sender.

A new CLI command is also provided which complements the new option above:

```
config sys set snmp force-trap-sender <true|false>
```

(`force-trap-sender` is by default set to `false`)

If `force-trap-sender` is `true` and if `ip_source` is configured for a SNMP trap receiver, then `ip_source` will be sent as the sender IP address. In all other cases, the SNMP traps are sent using the regular best interface method.

(Q00584638)

## SNA and user-defined VLANs extension to cover multiple DSAP and SSAP per VLAN

Release 3.5 introduced a feature that allows the configuration of multiple DSAPs or SSAPs for SNA or user-defined VLAN types.

The base implementation of the SNA VLAN allows classifying SNA 802.2 traffic to be classified into a SNA VLAN based on a 0x04 destination SAP or 0x04 source SAP. Some applications require changing these classifications to DSAP and to SSAP. The newly introduced feature allows this configuration and is extended to support any user-defined VLANs with multiple SSAPs and DSAPs.

This feature allows you to add 31 additional protocol IDs or DSAP/SSAP values, for a total of 32, when you create a sna802dot2 VLAN or a user-defined VLAN, or when you reconfigure a sna802dot2 VLAN or a user-defined VLAN.



**Note:** Hardware record usage increases considerably using this feature (see [“Design aspects” on page 8](#)).

---

### Design aspects

You can configure this feature using the CLI or Device Manager. Regardless of your configuration tool, you must first create the SNA or user-defined VLAN, then add the DSAPs or SSAPs for this VLAN.

For user-defined VLANs, DSAP/SSAP additions can only be applied to VLANs created without any specific encapsulation type or to VLANs with an encapsulation type of LLC. The addition of DSAP/SSAP is not allowed on user-defined VLANs created with an encapsulation type of Ethernet-ii or SNAP.

For each SNA802dot2 VLAN, including 31 additional DSAP/SSAP values, 256 records are created, including:

- 8 IEEE VLAN records
- $31 * 8 = 248$  protocol ID records.

In this case the default 0x04 records is always created on the switch.

For each user defined VLAN created with no encapsulation specified, a total of 280 records are created, including:

- 8 IEEE VLAN records
- $3 * 8 = 24$  protocol ID records for the base protocol ID (specified during VLAN creation). One record of each type - LLC, Ethernet-ii and SNAP is created in this case.
- $31 * 8 = 248$  protocol ID records for the additional DSAP/SSAP added

For each user-defined VLAN created with encapsulation set to LLC, 264 HW records are created, including:

- 8 IEEE VLAN records
- $1 * 8 = 8$  protocol ID records for the base protocol ID (specified during VLAN creation). Only the LLC record is created in this case
- $31 * 8 = 248$  protocol ID records for the additional DSAP/SSAP added

Nortel Networks does not recommend using more than 10 of the UserDefined VLANs including 32 DSAP/SSAP values due to the extensive hardware record usage which could affect overall system scalability.

You can check for hardware record availability by executing the CLI command **show/sys/record-reservation**.

There is only one SNA VLAN allowed on an individual port. The switch does not allow configuring user-defined VLANs with DSAP/SSAP of xx04 or 04xx. Other values can be configured provided they are not the same as the reserved values listed in [Table 1](#). An exception is 0x0800 which can be configured with the encapsulation set to LLC.

**Table 1** Reserved values for configuring SNA or user-defined VLANs

Protocol name	Etype	DSAP	SSAP	OUI	PID
IP_ii	0x0800				
ARP_ii	0x0806				
RARP_ii	0x8035				
IPX(old)_ii IPX_ii	0x8137 0x8138				
IPX(old)_SNAP IPX_SNAP				0x00000 0 0x00000 0	0x813 7 0x813 8
IPX_802.3		0xE0	0xE0		
IPX_802.3		0xFF	0xFF		
APPLE_ii APPLE_SNAP	0x809B 0x80F 3			0x08000 7	0x809 B 0x80F 3
DEC_LAT	0x6004				
DEC_ELSE	0x6000 - 0x6003 0x6005  - 0x6009				
DEC_BPDU	0x8038				
SNA_ii	0x80D5				
SNA_LLC		0x04 XX	XX 0x04		
NetBIOS		0xF0 XX	XX 0xF0		
XNS XNS_comp	0x0600 0x0807				

## Configuring with the CLI

The CLI command syntax to create a protocol-based VLAN is shown in the following display output:

```
Passport-8610:5 config vlan [vlan id] create byprotocol ?
```

```
create a vlan by protocol
```

Required parameters:

```
<sid> = spanning tree id {1..64}
```

```
<ip|ipx802dot3|ipx802dot2|ipxSnap|ipxEthernet2|appleTalk|dec
Lat|decOther|sna802dot2|snaEthernet2|netBios|xns|vines|ipV6|
usrDefined|rarp> = protocol id
{ip|ipx802dot3|ipx802dot2|ipxSnap|ipxEthernet2|appleTalk|dec
Lat|decOther|sna802dot2|snaEthernet2|netBios|xns|vines|ipV6|
usrDefined|rarp}
```

Optional parameters:

```
<pid> = user defined pid number in Decimal {0..65535}
```

```
name <value> = name of vlan {string length 0..20}
```

```
color <value> = color of vlan {0..32}
```

```
encap <value> = frame encapsulation {ethernet-ii|llc|snap}
```

Command syntax:

```
byprotocol <sid>
<ip|ipx802dot3|ipx802dot2|ipxSnap|ipxEthernet2|appleTalk|dec
Lat|decOther|sna802dot2|snaEthernet2|netBios|xns|vines|ipV6|
usrDefined|rarp> [<pid> ] [name <value>] [color <value>]
[encap <value>]
```

You can then add or remove DSAP or SSAP if `byprotocol = sna802dot2` or `userDefined` using the new commands `addDsapSsap` and `removeDsapSsap`:

`addDsapSsap <value> = {dsapssap values DSSS} values are in hex`

`removeDsapSsap<value> values are in hex`

32 entries are allowed for `sna802dot2` or `userDefined` VLANs.

### *Example*

```
Passport-8610:5/config/vlan/2# create byprotocol 1 sna
addDsapSsap 0x0805
```

This adds `DsapSsap 0x0805` to the SNA VLAN 2. (This example assumes that VLAN2 has already been created.)

### *Example*

```
Passport-8610:5/config/vlan/2# create byprotocol 1 UserDefined
addDsapSsap 0x0805
```

This adds `DsapSsap 0805` to the `UserDefined` VLAN 2, and only for LLC frames. (This example assumes that user-defined VLAN 2 has already been created.)

## **Configuring with Device Manager**

To configure this feature with Device Manager, use the `VLAN > VLAN` menu and create a user-defined VLAN or a SNA VLAN. [Figure 1](#) shows an example of how to configure a user-defined VLAN with DSAP 000C using Device Manager.

**Figure 1** Example of configuring a user-defined VLAN with DSAP 000C

**134.177.229.200 - VLAN, Insert Basic**

**Id:** 90 1..4093

**Name:** VLAN90

**Color Identifier:** red

**StgId:** (1) 1/1-1/8

**Type:**  byPort  byIpSubnet  byProtocolId  
 bySrcMac  bySvlan  byIids

**PortMembers:** ...

**StaticMembers:** ...

**NotAllowToJoin:** ...

**SubnetAddr:**

**SubnetMask:**

**ProtocolId:**  ip  ipx802dot3  ipx802dot2  
 ipxSnap  ipxEthernet2  appleTalk  
 decLat  decOther  sna802dot2  
 snaEthernet2  netBios  xns  
 vines  ipV6  usrDefined  
 rarp  PPPoE

**UserDefinedPid:** 000C (4 digit hex number)

**Encap:**  ethernet2  llc  snap  all

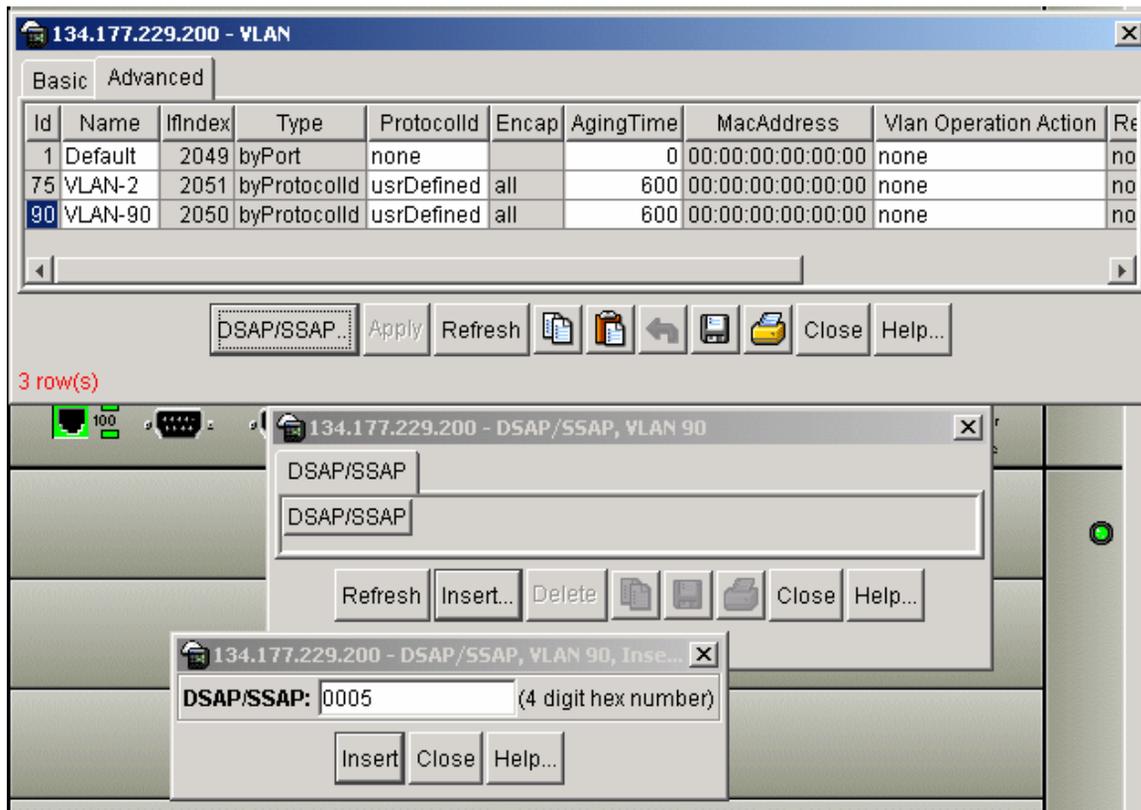
**AgingTime:** 600 10..1000000 sec

**QoSLevel:**  level0  level1  level2  level3  
 level4  level5  level6  level7

**Insert** **Close** **Help...**

After you have created the VLAN, you can then add other DSAPs or SSAPs in the Advanced tab for the created VLAN, as shown in [Figure 2](#).

**Figure 2** Adding DSAPs or SSAPs in the VLAN Advanced tab



## Related publications

For more information about the Passport 8000 Series switch, refer to the following publications:

### Important information and reference

- *Important information about your hardware and supporting software release compatibility* (part number 314937-B)
- *Read Me for Security* (part number 314997-A)
- *Network Design Guidelines & Implementation Notes* (part number 313197-B)

### Hardware books

- *Installing and Maintaining the 8000 Series Chassis and Components* (part number 316314-A)

### Hardware upgrade and replacement manuals

- *Installing 8600 Switch Modules* (part number 312749-C)
- *Installing 8100 Switch Modules* (part number 312750-B)
- *Installing the Breaker Interface Panel for the 8010co Chassis* (part number 312755-D)
- *Installing a DC Power Supply in an 8000 Series Switch* (part number 313070-C)
- *Installing a AC Power Supply in an 8000 Series Switch* (part number 312751-C)
- *Installing a Fan Tray in an 8000 Series Switch* (part number 312752-B)
- *Installing Gigabit Interface Converters (GBICs)* (part number 312865-A)
- *Replacing an Air Filter in the 8010co Chassis* (part number 313592-C)
- *Installing Media Dependent Adapters (MDAs)* (part number 302403-G)
- *Installing CWDM Gigabit Interface Converters (GBICs)* (part number 212256-B)
- *Installing Media Dependent Adapters for the 8672ATME and 8672ATMM Modules* (part number 313071-B)

- *Installing Media Dependent Adapters for the 8683POSM Module* (part number 313072-B)
- *Installing the Web Switch Module for the 8000 Series Switch* (part number 314969-A)

## Module using guides

- *Using the 8672ATME and 8672ATMM Modules* (part number 209195-C)
- *Using the 8683POSM Module* (part number 209564-B)
- *Using the 10 Gigabit Ethernet Modules: 8681XLR and 8681XLW* (part number 315893-A)

## Software books

- *Platform and System Management* (part number 315545-A)
- *Configuring and Managing Security* (part number 314724-A)
- *Getting Started with the Management Software* (part number 313189-B)
- *Configuring IP Routing Operations* (part number 314720-A)
- *Configuring IP Multicast Routing Protocols* (part number 314719-A)
- *Configuring BGP Services* (part number 314721-A)
- *Configuring IPX Routing Operations* (part number 314722-A)
- *Configuring Network Management and Diagnostics* (part number 314723-A)
- *Configuring Layer 2 Operations: VLANs, Spanning Tree, Multilink Trunking* (part number 314725-A)
- *Configuring the Web Switch Module with Device Manager* (part number 314995-A)
- *(Alteon) WebOS Switch Software 10.0 Application Guide* (part number 212777-A)
- *(Alteon) WebOS Switch Software 10.0 Command Reference* (part number part number 212778-A)

## Hard-copy technical manuals

You can print selected technical manuals and release notes free, directly from the Internet. Go to the [www.nortelnetworks.com/documentation](http://www.nortelnetworks.com/documentation) URL. Find the product for which you need documentation. Then locate the specific category and model or version for your hardware or software product. Use Adobe\* Acrobat Reader\* to open the manuals and release notes, search for the sections you need, and print them on most standard printers. Go to Adobe Systems at the [www.adobe.com](http://www.adobe.com) URL to download a free copy of the Adobe Acrobat Reader.

## How to get help

If you purchased a service contract for your Nortel Networks product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller for assistance.

If you purchased a Nortel Networks service program, contact one of the following Nortel Networks Technical Solutions Centers:

Technical Solutions Center	Telephone
Europe, Middle East, and Africa	(33) (4) 92-966-968
North America	(800) 4NORTEL or (800) 466-7835
Asia Pacific	(61) (2) 9927-8800
China	(800) 810-5000

Additional information about the Nortel Networks Technical Solutions Centers is available from the [www.nortelnetworks.com/help/contact/global](http://www.nortelnetworks.com/help/contact/global) URL.

An Express Routing Code (ERC) is available for many Nortel Networks products and services. When you use an ERC, your call is routed to a technical support person who specializes in supporting that product or service. To locate an ERC for your product or service, go to <http://www130.nortelnetworks.com/cgi-bin/eserv/common/essContactUs.jsp>.

