Part No. 206494-V
January 2001

4401 Great America Parkway
Santa Clara, CA 95054

Addendum to the 2.0 Software Release Notes for Passport 1000 Series Products Release 2.0.7.4

.

NORTEL NETWORKS™

Copyright © 2001 Nortel Networks

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 NA Inc.

Trademarks

NORTEL NETWORKS is a trademark of Nortel Networks.

LinkSafe and Nortel Networks are trademarks of Nortel Networks.

Passport and Accelar are registered trademarks of Nortel Networks.

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

All other trademarks and registered trademarks are the property of their respective owners.

Statement of Conditions

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

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

Introduction

This release note addendum for Passport 1000 Series routing switch software release 2.0 describes the enhancements and bug fixes to the Passport 1000 Series routing switch software that have been implemented in release 2.0.7.4. This document is an addendum to the *Release Notes for the Accelar 1000 Series Products Software Release 2.0* (part number 896-00181-E). The 2.0 release notes and addendum are available on the 2.0 Software CD and on the Nortel Networks™ Customer Service Documentation Web page (*http://support.baynetworks.com/library/tpubs/nav/rtswitch/accelar.htm*).

Note: To consolidate and leverage marketing investments, simplify brand promise, and reach customers again and again with a simple message, Nortel Networks will transition the Accelar® family of products into the Passport® brand. All product model numbers will remain the same.

The Passport 1000 Series products were formerly called the Accelar 1000 Series products. This software release is compatible with all previously released Accelar 1000 Series switch modules, as well as current Passport 1000 Series modules.

Software release 2.0.7.4 includes updates to the run-time software only. The latest software components are:

- Run-Time Software Version 2.0.7.4 (p10a2074.img)
- Boot Monitor Software Version 2.0.5 (ac10b205.img) supplied as a Boot Monitor Updater

- Device Manager and VLAN Manager Version 2.0.5 (for Microsoft® Windows® 95 or Windows 98 and Windows NT®: dm_205.exe; for UNIX: dm_2.0.5.tar.Z)

Note: Before upgrading your software from earlier versions, **back up** your current configuration file. Version 2.0.7.4 configuration files contain configuration options that are not compatible with run-time options in software version 2.0.7.0 or earlier. It is important to back up the current configuration file before upgrading in case you must revert to a previous version of the run-time image.

Note: Boot Monitor Software Version 2.0.5 is equivalent to Boot Monitor Software Version 2.0.1. Existing configurations with Boot Monitor Software Version 2.0.1 can continue to use this boot monitor with the Run-Time Software Version 2.0.7.4. Configurations with boot monitor software versions prior to 2.0.1 must upgrade to Boot Monitor Software Version 2.0.5.

For the latest information about software issues, always refer to the Passport Products site from the Nortel Networks Web page (*www.nortelnetworks.com*) or contact Nortel Networks Customer Support at 1-800-2LANWAN.

This addendum includes the following sections:

Note: Many of the new features in release 2.0 and above require modules and chassis (Accelar 1100/1150 routing switches) to be -B versions or above with ASICs that are ARU3 or above. Hardware with ARU1 or ARU2 ASICs does not support these features.

Warning: Software release 2.0.7.4 requires 32 MB of DRAM. If you do not have 32 MB of DRAM, an error message appears when you boot up the Passport 1000 Series routing switch.
The memory upgrade kit (AA0011017) is available for the XLR1297SF module and increases DRAM to 32 MB. If your Passport 105x or 11x0 routing switch has 16 MB of DRAM, contact your Nortel Networks sales representative or authorized reseller to upgrade your switch.

Recommendations and information about release 2.0.7.4

Note the following recommendations and miscellaneous information about Passport 1000 Series routing switch software release 2.0.7.4:

- Passport 1000 switch software release 2.0.7.4 does not support global filters. Configuration information relating to global filters is ignored when you boot-up. When booting up with software version 2.0.7.4, the following message is displayed on the screen:

  ```
  Global filters are not supported in this release.
  ```

- When you create a MultiLink Trunking (MLT) group, the resulting MLT is put into the default VLAN (VLAN 1). The MLT should then be assigned to other VLANs as appropriate.

- The new XLR1298SF SSF module has 32 megabytes (MB) of dynamic random access memory (DRAM). Release 2.0.7.4 requires 32 MB of DRAM, so you must upgrade your XLR1297SF module to increase memory. If you do not have 32 MB of DRAM, you receive an error message when you boot-up. A memory upgrade kit (AA0011017) is available for the XLR1297SF module to increase DRAM to 32 MB.
- Always set a specific Enforce Operational Configuration (EOC) mode (refer to the Passport 1000 Series routing switch software release 2.0 release notes for more information) instead of allowing the default EOC mode (which is to the lowest-level module in the switch) in order to avoid losing functionality in case a lower-revision module is installed in the switch.
- Terminology has been modified in Device Manager and the command line interface (CLI) so that “trunk” is used only in reference to MultiLink Trunking (MLT). What were previously referred to as *trunk ports* (in contrast to access ports) are now referred to as *tagged ports*.
- Gigabit LinkSafe™ configurations must have autonegotiation enabled. Setting autonegotiation to False is not supported on gigabit LinkSafe modules in *redundant* configurations. However, autonegotiation can be set to False if a gigabit LinkSafe module is connected in a nonredundant setup to a gigabit module not supporting autonegotiation.
- Nortel Networks recommends against configuring VRRP on IP-subnet-based VLANs because there is no hardware support for this configuration in the I/O modules and all traffic forwarding must be handled by the CPU. This situation can cause high CPU utilization and affect performance. (105851-1)
- VRRP running over IEEE 802.1Q tagged ports requires ARU3 modules (-B hardware). (115732-1, 130826-1)
- The `traceroute` command now works for UDP port numbers in the range 1–65535. (131162-1)

Multicast in release 2.0.7.4

The two software features DVMRP and IGMP have known problems that can cause general operational issues with Passport 1000 Series routing switches. Therefore, IP Multicast is not supported in release 2.0.7.4 or prior releases.

STG and BPDU clarification

The following two controls regulate the behavior of the Spanning Tree Protocol (STP) in a spanning tree group (STG) on a Passport 1000 Series routing switch:

- A global parameter to enable or disable STP at the STG level
- Port parameters to enable or disable STP on individual ports

When the STP is globally disabled on the STG, received bridge protocol data units (BPDUs) are handled like a MAC-level multicast and flooded out the other ports of the STG. Note that an STG can contain one or more VLANs. Remember that MAC broadcasts are flooded out all ports on a VLAN; a BPDU is a MAC-level message, but the BPDU is flooded out all ports on the STG, which may encompass many VLANs.

When STP is globally enabled on the STG, BPDU handling depends on the following STP setting of the port:

- When STP is enabled on the port, received BPDUs are processed in accordance with STP.
- When STP is disabled on the port, the port will always be in a forwarding state, received BPDUs are dropped and not processed, and no BPDUs are generated.

To configure STP on STGs with the CLI, use the command:

```
config stg <sid> group-stp <enable|disable>
```

To configure STP on a port with the CLI, use the command:

```
config ethernet <ports> stg <sid> stp <enable|disable>
```

To configure STGs with Device Manager, choose VLAN > Stg > Configuration. To configure STP on a port with Device Manager, choose the port and the spanning tree tab.

High-priority switching

The Passport 1000 Series routing switch operates in either of two modes: Best Effort or Priority mode. The factory default setting is Best Effort mode; in this mode, all traffic is treated with the same priority. In Priority mode, high-priority traffic flows through the switch fabric using a high-priority data path; output buffers are reserved for high-priority traffic. This issue does not apply to IEEE 802.1p packets.

Nortel Networks recommends that you enable Priority mode on switches in very heavy traffic situations. Enabling Priority avoids delaying vital high-priority network traffic, including BPDUs and routing protocol information. To enable Priority using the CLI, enter:

```
config sys set flags highpriomode true
```

Note: The switch must be rebooted before this change takes effect.

Disabling IPX NetBIOS propagation

With the release of Passport 1000 Series routing switch software version 2.0.4 and higher, you can disable IPX NetBIOS (type 20) propagation. You can enable or disable IPX NetBIOS (type 20) propagation globally, that is, on all IPX interfaces in the entire chassis.

Configuring

Configure this feature using the CLI. The CLI command to enable or disable IPX NetBIOS (type 20) propagation is `config ipx set netbios <on/off>`.

To view the current state of IPX NetBIOS propagation, use `config ipx set info`.

Note: The option to enable or disable IPX NetBIOS propagation is associated with IPX routing, so it is relevant only to switches with the ARU3 module and with IPX enabled.

Flash commands

The verbiage in the flash commands `format`, `squeeze`, and `recover` is changed to accurately indicate the behavior when leaving the command—the operation is not canceled when selecting to continue; rather the operation continues in the background. Any attempt to access or manage the flash command during processing will fail. (115397-1, 116199-1)

The following is an example of the revised wording:

```
Passport 1000 Series routing switch-1200# format fl

Format will erase all files.

Do you wish to continue? (y/n)? Y

[000 02:49:17:116] Start format cli timer

formatting...Press any key to push operation to background.
```

When you press any key, the following text is displayed on the screen:

```
Note: If you push operation to background you will not be
advised as to the result of the operation.

Do you wish to continue (y/n)? n

formatting ... success

Passport 1000 Series routing switch-1200#
```

```
Passport 1000 Series routing switch-1200#

Passport 1000 Series routing switch-1200# format fl

formatting ... Press any key to push operation to
background.
```

When you press any key, the following text is displayed on the screen:

```
Note: If you push operation to background you will not be
advised as to the result of the operation.

Do you wish to continue (y/n) ? y

formatting ... operation pushed to background

Passport 1000 Series routing switch-1200#
```

IPX RIP and IPX SAP pacing (frame rate)

This frame rate is used to control the number of frames per second for IPX RIP and IPX SAP. The default is 20 frames per second. In Device Manager, the frame rate is controlled by the pace parameter; and in the CLI, it is controlled by the update-delay parameter. (118350-1)

The “pace” is the number of packets per second. The “update-delay” is expressed in milliseconds.

For example:

pace = 50 (packets per second)

update-delay = 20 milliseconds (1000/pace)

To make changes to the pace parameter:

➨ From the Device Manager menu bar, choose Routing > IPX > RIP or Routing > IPX > SAP.

To make changes to the update-delay parameter:

- In the command line interface (CLI), use the following commands:

  ```
  config ipx rip update-delay <ipx-network-number>
  <delay-timer>
  ```

  ```
  config ipx sap update-delay <ipx-network-number>
  <delay-timer>
  ```

where:

ipx-network-number is the network number in hexadecimal format.

delay-timer is a value in milliseconds (1...1000).

CLI commands

With the release of Passport 1000 Series routing switch software version 2.0.7.4, when additional parameters are given to CLI commands that are not required, the following error message is displayed:

```
Additional parameters entered
```

This error message is followed by Help syntax on the command entered.

In earlier releases of the software, CLI commands with extra parameters would execute with no error message displayed. Now these CLI commands are no longer executed. (134495-1)

Bugs fixed in release 2.0.7.4

The following sections list bugs that were fixed in Passport 1000 Series routing switch software release 2.0.7.4.

Miscellaneous

The following miscellaneous bugs were fixed in the Passport 1000 Series routing switch software release 2.0.7.4:

- The Passport 1200 switch now responds to ARP requests through a tagged port defined in STG2 even when the same port is in a blocking state for STG1. (139690-1)
- The Passport 1200 switch now discards incoming ARP packets with a source MAC address of 00:00:00:00:00:00 and does not allow you to create static ARP entries with MAC address 00:00:00:00:00:00. (135843-1)
- In the Passport 1200 switch, multicast MAC addresses can no longer be added to the static FDB table. (128856-3)
- The Frame Too Short, Alignment Error, FCS, and Runt Errors counters on the Passport 1216TF modules now increment correctly. (102833-1)
- DHCP settings for Mode, MinSec, and MaxHop no longer get reset when enabling DHCP on a port or VLAN. (122893-2)
- It does not make a difference if the *Advertise-when-down* option is set to true or false; the dynamic ARP table entries related to both IRPs and VLANs are now cleared if the links go down. (91866-1)
- After a reset, the Passport 1200 switch now accepts RIP2 updates on a Brouter port when the *advertise-when-down* parameter is enabled. (124879-1)
- In the Passport 1200 switch, VLAN names that include spaces are now saved correctly in the ASCII configuration file. (139700-1)
- When a Passport 1200 switch is configured as a root bridge, the blocking MultiLink Trunk (MLT) port connected to a Business Policy Switch 2000 switch now recovers after that switch is rebooted. (133647-1)
- In a Passport 1200 switch, the STP statistics for MLT ports are now correctly displayed. (139689-1)
- In Passport 1200 switch , the spanning tree topology change message is now logged whenever the root bridge changes. (136543-1)

- The Passport 1200 switch no longer displays an error message when copying a saved configuration file to the running configuration. (139318-1)
- The Passport 1200 switch no longer generates streaming topology change notifications (TCNs) when a port is a member of multiple STGs. (137843-1)

CLI

The following CLI bugs were fixed in Passport 1000 Series routing switch software release 2.0.7.4:

- The subcommands `create` and `delete` are no longer displayed under the `config ipx` command. (137084-1)
- The number of static IPX routes are now displayed when executing the `config ipx static-route info` command. (137069-1)

  Example:

```
Passport-1200#config ipx static-route info
Sub-Context:
Current Context:
   create:
IPX-network-number – 0x22222222
   nexthop – 0x11111111.01:01:01:01:01:01
   hop-count – 1
   tick-count – 1
delete :
1 out of 1 static routes displayed.
```

- The number of static SAP entries is now displayed when executing the `config ipx sap info` command. (137069-1)

  Example:

```
Passport–1200# config ipx sap info
Sub-Context:
   Current Context:
   default-delay : 50 msec
   default-hold-multiplier : 3
```

```
      default-interval : 60 sec
      SapGnsTieBreaker : Alphabetical
      create:
      forwarding-cid – 0x0001
      service-type – 0x0004
      service-name – ash
      ipxhost – 0x00000004.11:11:11:11:11:11
      socket-number – 0x0451
      hop-count – 4
      delete :
   hold-multiplier :
      IPX-network-number – 0x11111111
      hold-multiplier – 3
      update-delay:
      IPX-network-number – 0x11111111
      update-interval –50 msec
   update-interval :
      IPX-network-number – 0x11111111
      update-interval – 60 sec
   2 out of 2 static saps displayed.
```

- The OSPF authentication type no longer appears corrupted when viewed from the CLI if the AuthKey is changed in Device Manager. (127530-1)

IP

The following IP bugs were fixed in Passport 1000 Series routing switch software release 2.0.7.4.

- In the Passport 1200 switch, if the RIP update timer is set to a lower value than other routers in the network, the RIP age counter no longer displays negative values. (127357-1)
- The Passport 1200 switch no longer accepts broadcast (255.255.255.255) or loopback (127.*.*.*) IP addresses as syslog host addresses. (141036-1)

IPX

The following IPX bugs were fixed in the Passport 1000 Series routing switch software release 2.0.7.4:

- In the Passport 1200 switch, static SAP routes are no longer advertised if the circuit ID is down. (117143-2)
- In the Passport 1200 switch, when an IPX static route is created the node address for the next hop remains the one specified at the CLI prompt. (139800-1)

OSPF

The following OSPF bugs were fixed in the Passport 1000 Series routing switch software release 2.0.7.4:

- When a Passport 1200 switch is using OSPF and receives external RIP route changes, OSPF is now recalculated for those external routes. (139615-1)
- In the Passport 1200 switch, the value of the *ext-metric* parameter in the `config ip policy ospf announce` command retains its original value after reset. (140025-1)

VRRP

The following VRRP bug was fixed in the Passport 1000 Series routing switch software release 2.0.7.4.

- The Passport 1200 switch no longer allows broadcast or network IP addresses to be added as the VRRP address. (137371-1)

Known issues

The following sections list known issues in the Passport 1000 Series routing switch software release 2.0.7.4.

Miscellaneous

The following miscellaneous known issues exist in the Passport 1000 Series routing switch software release 2.0.7.4:

- An interoperability issue has been observed under the following conditions that cause the Passport 1200 switch to reset:
  - — A Dell or Compaq laptop PC using Windows 2000 is re-powered while connected to the console port of the Passport 1200 switch.
  - — A Dell or Compaq laptop PC using Windows 2000 is connected to the console port of the Passport 1200 switch for an extended period of time without an active application running such as hyperterm. (138370-1)
- The rcStatBridgeOutBroadcastFrames counter is not supported. (113124-1)
- SNA-802.2 protocol-based VLANs do not support DSAP/SSAP values other than 0x04. (118821-1)

IP

The following known IP issue exists in the Passport 1000 Series routing switch software release 2.0.7.4:

- The routing switch does not use a dynamically learned route (RIP/OSPF) when a static route for that network becomes inactive. (115167-1, 121564-1)

VRRP

The following known VRRP issue exists in the Passport 1000 Series routing switch software release 2.0.7.4:

- ICMP support for the VRRP virtual IP address is limited. Future releases of software will allow you to disable this functionality to avoid problems with fragmentation (108271-1), traceroute (109230-1), and access to own virtual address (122482-1).

Related publications

For additional information about the Passport 1000 Series routing switch products, refer to the documents found at *http://support.baynetworks.com/library/tpubs/nav/rtswitch/* on the World Wide Web.