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Addendum to the 2.0 Software Release Notes for Passport 1000 Series Products Release 2.0.7.3

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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 2.0.7.3. 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 2.0.7.3 includes updates to the run-time software only. The latest software components are:

- Run-Time Software Version 2.0.7.3 (p10a2073.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 2.0.7.3 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 2.0.7.3. 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 2.0.7.3 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 2.0.7.3

Note the following recommendations and miscellaneous information about Passport 1000 Series routing switch software release 2.0.7.3:

- Passport 1000 Series routing switch software release 2.0.7.3 does not support global filters. Configuration information relating to global filters is ignored on boot-up when you use software release 2.0.7.3. Upon booting up with software version 2.0.7.3, the following message appears on the screen:

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

  If you attempt to configure global filters using software version 2.0.7.3, the following error message appears on the screen:

  ```
  Operation not allowed.
  ```

- 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 2.0.7.3 requires 32 MB of DRAM, so you must upgrade your XLR1297SF module to increase memory. If you do not have 32 MB of DRAM, an error message appears on 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)
- VRRP running over IEEE 802.1Q tagged ports requires ARU3 modules (-B hardware). (115732-1, 130826-1)

Multicast in release 2.0.7.3

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 2.0.7.3 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 many 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#

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 appears 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 appears 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).

Bugs fixed in release 2.0.7.3

The following sections list bugs that were fixed in Passport 1000 Series routing switch software release 2.0.7.3.

Miscellaneous

The following miscellaneous bugs were fixed in the Passport 1000 Series routing switch software release 2.0.7.3:

- The `show config`, CLI command will now display default or predefined UDP ports. (132585-1)
- Distributed-MLT will no longer fail after an I/O module with ports in a Distributed-MLT group is removed from the chassis and the switch is rebooted. (131763-1)
- The log file timestamp is now synchronized with the system timestamp. (129812-1)
- Changing the standard MAC multicast BPDU address is now supported. It is now possible to configure MAC addresses as 01:80:c2:00:0x:00. Ranges can be from 01:80:c2:00:00:00 to 01:80:c2:00:0f:00. Any change outside this range will be silently discarded. (123563-1)

- The Passport 1000 Series routing switch software will not duplicate self-sourced packets upon TTL expiration. (127390-1)
- The Passport 1000 Series routing switch software now deals properly with situations where IP traffic from the same IP source address is received on two ports in different spanning tree groups. (129324-1)
- A link no longer gets enabled on an administratively disabled port if a module is removed and reinserted. (99117-1)
- The DVMRP part of the `Install` script now executes in the proper order. (123920-1)
- The saving sequence in the `Config` script has been modified to ensure that brouter ports are created before the VLAN corresponding to the brouter port is configured. (135511-1)
- The Passport 1000 Series routing switch no longer displays DHCP interface counters after DHCP is disabled on the port. (133162-1)
- A syslog file is now created on PCMCIA if there is no syslog file in flash memory and flash memory is full. (134741-1)
- A Passport 1200 chassis with six 16 port 10/100BASE-TX boards, and 96 IRP circuits can now be successfully configured. (128062-1)
- The Passport 1000 Series routing switch software no longer allows you to enter the broadcast MAC address (ff:ff:ff:ff:ff:ff) as a source MAC address for a source MAC-based VLAN. (134497-1)
- Large configuration files of up to 256KB can now be copied to flash memory when running TFTP. The error message, “Error: Script Buffer full !” is generated if the size of the file exceeds 256KB. (125296-1)
- ARP aging now works properly when IP traffic from the same IP source address is received on two different ports. (134211-1)

CLI

The following CLI bugs were fixed in Passport 1000 Series routing switch software release 2.0.7.3:

- When you upgrade from release version 2.0.7.0 to 2.0.7.3 or later the CLI default prompt has been modified from Accelar-xxxx to Passport-xxxx. (132407-1)

- The CLI has been enhanced to now include trap receiver table information. The **`show sys snmp`** command now contains two parameters, *`community`* and *`trap-recv`*. (94350-1) Here are the CLI commands and their outputs:

```
Passport-1200/show/sys/snmp# ?
Sub-Context:
Current Context:
   community
   trap-recv
Passport-1200#show sys snmp community
Community String
ro        public
l2        private
l3        private
rw        private
rwa       secret
Passport-1200#show sys snmp trap-recv
trap-recv :
10.163.144.2 - v1 public
10.163.144.6 - v1 public
```

- The tagged BPDU address and tagged BPDU VLAN ID for an STG can now be created from the CLI. The options *tagged-bpdu-address* and *tagged-bpdu-vlanid* have been added to the `config stg create` command. (134107-1) Here are the CLI commands:

  Syntax:

  ```
  config stg <sid> create [<ports>] [tagged-bpdu-address
  <value>] [tagged-bpdu-vlanid <value]
  ```

  Example 1:

  ```
  Passport-1200# config stg 2 create tagged-bpdu-address
  01:80:c2:00:01:00
  ```

  Example 2:

  ```
  Passport-1200# config stg 3 create tagged-bpdu-vlanid
  4026
  ```

- The **`show config verbose`** and the **`config stg <sid> info`** commands now display information about tagged BPDU MAC addresses and tagged BPDU VLAN IDs under an STG configuration. (134111-1, 135597-1)

  Example :

  ```
  Passport#1200/config/stg/1# info
  Sub-Context:
  Current Context:
     add ports : 1/1-1/16,3/1-3/16,6/1-6/16,8/1-8/16
     create : 1
     delete : N/A
     forward-delay : 1500
     group-stp : true
     hello-interval : 200
     max-age : 2000
     priority : 32768
     remove ports : N/A
     trap-stp : true
     tagged-bpdu-address : 01:80:c2:00:01:00
     tagged-bpdu-vlanid : 4026
  ```

IP

The following IP bugs were fixed in Passport 1000 Series routing switch software release 2.0.7.3:

- Static routes marked as inactive in the routing table, due to a higher preference local route, will become active again if the local route goes down. (127610-1)
- The next-hop address of a static route can no longer be configured as a local subnet broadcast address. (116986-1)
- It is no longer possible to create a static ARP entry with a broadcast IP address or a network IP address. (134370-1, 134353-1)
- Inactive static routes are now displayed when executing the **`config ip static-route info`** command. (134619-1)
- If the default action of an IP filter on a port is set to **`Drop`**, it is maintained after the Passport 1200 switch is rebooted. (133239-1)

OSPF

The following OSPF bugs were fixed in the Passport 1000 Series routing switch software release 2.0.7.3:

- Auto virtual links can no longer be enabled if only a backbone area 0.0.0.0 exists. When you attempt to do this the following error message is displayed: “Error: Cannot enable auto-vlink in backbone Area 0.0.0.0!”. (127279-1)
- Resetting the counters by issuing the **`config sys set action resetcounters`** command no longer resets the OSPF LSDB table size to 0. Therefore, removing remote links will no longer cause the software to take negative values and adversely impact Device Manager or VLAN Manager. (105824-1)
- The IP routing table no longer prefers less specific AsSummary routes over more specific AsExternal routes learned from a neighbor router. (113786-1, 131014-1)
- The Passport 1200 switch now works properly when executing the show ip ospf lsdb lsid xxx.xxx.xxx.xxx detail from a Telnet session even when the LSDB has more than 300 entries. (133200-1)

- The Passport 1200 switch no longer forwards the LSAs advertising network address, which is a subset of an active area range, in the backbone area. The Passport 1200 switch is configured as an ABR in the backbone area. (123753-3)
- Depending on the link condition, messages are now displayed to inform the user how to activate or deactivate the "Advertise When Down" OSPF feature. (124526-1)
- If there are two routes to a destination, having the same type 2 external LSA with equal cost, the route selected is now based on the following selection criteria: (133211-1)
  - A lower internal cost to ASBR
  - A lower Area ID
- The Passport 1000 Series routing switch software now ensures that when OSPF is enabled across any link of an MLT with port-tagging enabled, it is enabled on all ports that are members of the MLT. Therefore, all VLANs are propagated across the MLT as OSPF neighbors. (134474-1)
- The Passport 1000 Series routing switch software will now properly fragment LSAs bigger than the maximum ethernet frame size. (135027-1)
- The Passport 1000 Series routing switch software no longer loses OSPF routes learned over a VLAN if the *Dead Interval Timer* is greater than the time required for spanning tree reconvergence. (132595-1)

IPX

The following IPX bugs were fixed in the Passport 1000 Series routing switch software release 2.0.7.3:

- For an interface that has been brought down or its IPX routing has been disabled, the IPX static route for the interface no longer appears in the Route Table. (107553-2)
- A circuit with IPX disabled will no longer have IPX enabled after saving and reloading the configuration file. (124665-2)
- The MAC address related to an IPX static SAP entry will no longer change when a service of the same name is learned dynamically. (131513-1)
- An IPX RIP request packet that is received with a non-FFFFH checksum (on a non-802.3 interface) is now replied to with an IPX RIP response packet whose checksum is FFFFH. (116283-1)

- The CLI command `Pingipx` works successfully for a local IPX network. Also, the CLI has been enhanced to display local IPX interfaces through the `show ipx circuit` command. (99086-1)
- Using the Passport 1000 Series routing switch software, the value of the parameter max-static-route can not be set to a value that is less than the number of static routes defined on the switch. If this occurs an error message is displayed. (110255-1, 135488-1, 135682-1, 135576-1, 137067-1)

VRRP

The following VRRP bug was fixed in the Passport 1000 Series routing switch software release 2.0.7.3:

- A VRRP-critical interface can now be deleted without having to add the VRRP to the interface again. (131028-1)

Known issues

The following sections list known issues in the Passport 1000 Series routing switch software release 2.0.7.3.

Miscellaneous

The following miscellaneous known issues exist in the Passport 1000 Series routing switch software release 2.0.7.3:

- The counters for Frame Too Short, Alignment Error, FCS, and Runt Errors intermittently increment incorrectly on the Passport 1216TF modules. (102833-1)
- Some resources are reserved when using software release 2.0.x in QUID5/ARU3 mode. As a consequence, this configuration supports a maximum of 100 VLANs where software release 1.3.x supports up to 124 VLANs.

In both cases (software versions 1.3.x and 2.0.x), the maximum VLAN number is reduced by the number of STG groups (1 per STG group) and MLT links (4 per MLT link). Using software version 1.3.x, the maximum VLAN number is further reduced by the number of IGMP snoop groups (1 per group).

- The rcStatBridgeOutBroadcastFrames counter is not supported. (113124)
- 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 2.0.7.3:

- 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 2.0.7.3:

- 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.