

# RELEASE NOTES:



## Alteon OS™ 21.0

Port Aggregator  
for IBM BladeCenter

Version 90.0

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**NORTEL**

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# Release Notes

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The Port Aggregator is one of up to four modules that can be installed in the IBM BladeCenter chassis.

These release notes provide the latest information regarding Nortel's Port Aggregator for the IBM BladeCenter. This supplement modifies information found in the complete documentation:

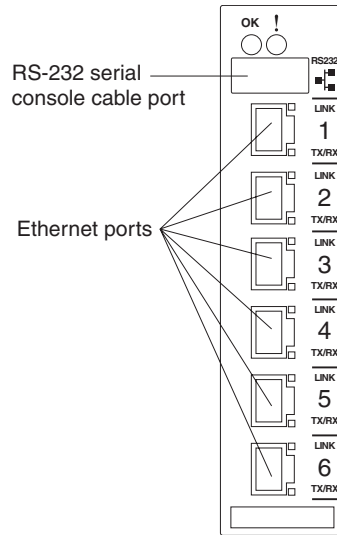
- *Port Aggregator Quick Start and Troubleshooting Guide*
- *Port Aggregator User's Guide*
- *Port Aggregator Installation Guide*
- *Alteon OS Command Reference*
- *Alteon OS Application Guide*
- *Alteon OS Browser-Based Interface Quick Guide*

The publications listed above are available from <http://www.ibm.com/pc/support>. Please keep the Release Notes with your product manuals.

## Hardware support

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The Nortel Port Aggregator is a high performance interface option for connecting the IBM BladeCenter system to the network infrastructure (see Figure 1). The Port Aggregator supports six Gigabit Ethernet external ports, 14 Gigabit Ethernet internal ports and two Fast Ethernet management ports. The Port Aggregator also features tight integration with IBM BladeCenter's management module.



**Figure 1** Port Aggregator faceplate

## Software support

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The Port Aggregator provides a simple Ethernet interface option for connecting the IBM BladeCenter system to the network infrastructure. The Port Aggregator's default configuration allows you to plug it into the BladeCenter Chassis and function correctly with no configuration changes. The configuration options are restricted to reduce the initial setup complexity and to minimize the impact on upstream networking devices.

For more detailed information about Port Aggregator's features and capabilities, please refer to the *Alteon OS 21.0, version 90.0 User's Guide for Nortel's Port Aggregator for IBM BladeCenter*.

## Supplemental Information

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This section provides additional information about configuring and operating the Port Aggregator.

### Management Module

- The “Fast POST=Disabled/Enabled” inside the IBM management module Web interface “I/O Module Admin/Power/Restart” does not apply to the Port Aggregator.

Solution: To boot with Fast or Extended POST, go to the “I/O Module Admin/Power/Restart” window. Select the Port Aggregator, and then choose “Restart Module and Run Standard Diagnostics” or “Restart Module and Run Extended Diagnostics.”

- The following table correlates the Firmware Type listed in the IBM management module’s Web interface “Firmware VPD” window to the Port Aggregator software version:

**Table 1** Firmware Type list

Firmware Type	Description
Boot ROM	Port Aggregator Boot code version
Main Application 1	Image 1 Port Aggregator software version
Main Application 2	Image 2 Port Aggregator software version

- Within the IBM management module Web interface, the Java applets of “Start Telnet Session” and “Start Web Session” do not support changing of default known ports 23 and 80 respectively.

Solution: If the Telnet or HTTP port on the Port Aggregator is changed to something other than the default port number, the user must use a separate Telnet client or Web browser that supports specifying a non-default port to start a session to the Port Aggregator user interface.

## Management Module-Port Aggregator Connectivity

Currently, the IBM management module is designed to provide one-way control of the Port Aggregator. As a result, the Port Aggregator may lose connectivity to the management module via the management port under the following conditions:

- If you execute the `/boot/reset` CLI command on the Port Aggregator or the Port Aggregator resets itself, the management module might not push the IP attributes to the switch, and connectivity may be lost.

Solution 1: If you should experience any connectivity issues between the switch module and the management module, go to the *I/O Module Configuration* window on the management module's Web interface. Under the *New Static IP Configuration* section, click **Save** to trigger the management module to push the stored IP attributes to the switch module.

Solution 2: If Solution 1 does not resolve your connectivity issue, then go to the *Admin/Power/Restart* window on the management module's Web interface. Restart the switch module in question.

Solution 3: If this still does not resolve the issue, enable *Preserve new IP configuration on all resets* setting on the management module and restart the switch module via the *Admin/Power/Restart* window on the management module's Web interface.

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**NOTE** – As a rule, always use the management module Web interface to change the Port Aggregator management IP attributes (IP address, mask and gateway), and then click **Save** to push the IP attributes to the switch module. Use of the command-line interface to change the switch module management IP attributes may result in duplicated IP Interface 128 entries in the Port Aggregator route table and/or loss of connectivity via the management module.

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## Secure Management Network

The following Port Aggregator attributes are reserved to provide secure management access to and from the IBM management module:

- VLAN 4095
- IP Interface 128
- Gateway 132
- MGT1 (Port 15)
- MGT2 (Port 16)

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**NOTE** – The external uplink ports (EXT1-EXT6) cannot be members of the management VLAN (4095).

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## Secure Shell (SSH)

Because SSH key generation is CPU intensive, the Port Aggregator attempts to avoid unnecessary key generation. The process generates three server keys:

1. One key is generated to replace the current server key, if used.
2. A second key is generated as a spare, in case the current server key is used and the specified interval expires.
3. A third key is generated for use at the next reboot.

Therefore, if you never login via SSH, you will only see two key generation events. You may see all three events directly following a reboot. If you want to witness the key generation after the specified interval has expired, then you must login via SSH at least once during each expiration interval.

## Trunk Group Configuration Tip

Configure all ports in a trunk group to the same speed. You cannot aggregate 10/100Base-TX module ports with gigabit ports.

## Syslog Configuration Tip

The *facility* parameter traditionally is used to correlate services (e.g. IP, CLI, etc.) to messages. This is done to distinguish between the different services that are running in the network/device. However, for the Port Aggregator, there is a single configured facility value (0-7) used on all messages. By configuring a unique facility value for each switch, a single SYSLOG server can distinguish between the various Port Aggregators in the network. Refer to "System Host Log Configuration" in the *Alteon OS 21.0, Version 1.1 Command Reference*.

## Known issues

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This section describes known issues for the Port Aggregator.

### Interoperability with Older Hubs

The command-line interface might display **link up** and **link down** messages continuously for an external port that is connected to certain older hub models configured for 100 Mbps half-duplex. The display might show **link up** erroneously. This behavior has been observed when connecting the Port Aggregator with the following devices:

- NetGear FE104 100 hub
- SBS 1000Base-T NIC
- 3Com Linkbuilder FMS100 Hub 3C250 TX/I
- 3Com SuperStack II 100TX 3C250C-TX-24/12
- Nortel Baystack 204 Hub

If the Port Aggregator is connected to an Alteon Application Switch which requires a link speed of 100 Mbps half-duplex, then enable auto negotiation on the Port Aggregator port with `port speed=any, mode=any, fctl=both, and auto=on`.

### Linking at 10/100MB

When the link speed for an external connection is forced (i.e. no Auto-Negotiation) to 100 Mbps and then changed to 10 Mbps, if the external device is changed first, the external device may erroneously report the link as DOWN even after the Port Aggregator is changed to 10 Mbps.

Solution: At the external device, disconnect and reconnect the cable.

### RADIUS with SSHv2

With RADIUS turned on, users might see a duplicate login prompt for SSHv2 clients, if the RADIUS server is too slow to respond or if the RADIUS server is not available. In this case, users must re-type the username and password to login.



## Trunk and Link Loop

When you create a trunk or link loop between the Port Aggregator and another switch, packets might loop infinitely at line rate within the related links. When this problem occurs, the Port Aggregator continuously displays the following messages at the console:

```
WARNING: packet_sent u: 0, dv_active: tx ring full
packet_sent dcnt=114, public1=110, vcnt=1025
```

Solution: Remove the loop to resolve this misconfiguration.

## Trunk Traffic

Multicast, broadcast and DLF (Destination Lookup Failed, which are unknown destination MAC packets) traffic is sent to the lowest numbered port in the trunk. If this port is down, then the traffic is sent to the next lowest-numbered port. If the port that was down comes up again, the traffic is not re-hashed back to the recovered port.

## Date and Time

The maximum year supported in the Port Aggregator is 2096. If a year higher than 2096 is entered in the CLI setup wizard, the BBI or the `/cfg/sys/date` CLI command, an erroneous date of 12/31/2069 is displayed.

The `/cfg/dump` and `/maint/tsdump` output do not include system date and time information.

## BBI software download

Some versions of Microsoft Internet Explorer version 6.x do not perform HTTP download efficiently. If you have one of these versions, HTTP software download might take much longer than expected (up to several minutes).

Nortel recommends the Firefox browser for BBI use.

