



JUNOS[®] 10.2 Software Release Notes for Dell[™] PowerConnect[™] J-EX Series Ethernet Switches

Release 10.2R1
28 May 2010

These release notes accompany Release 10.2R1 of the JUNOS Software for dell PowerConnect J-EX Series Ethernet Switches. They describe device documentation and known problems with the software.

You can also find these release notes at <http://support.dell.com/manuals>.

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JUNOS Software Release Notes for J-EX Series Switches

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New Features in JUNOS Release 10.2 for J-EX Series Switches

New features in Release 10.2 of JUNOS Software for J-EX Series switches are described in this section.

Not all J-EX Series software features are supported on all J-EX Series switches in the current release. For a list of all J-EX Series software features and their platform support, see the software overview information in the *Dell PowerConnect J-Series Ethernet Switch Complete Software Guide* for JUNOS Software at: <http://support.dell.com/manuals>.

New features are described on the following pages:

- Access Control and Port Security on page 3
- Bridging, VLANs, and Spanning Trees on page 4
- Class of Service (CoS) on page 4
- Infrastructure on page 4
- Layer 2 and Layer 3 Protocols on page 5
- Management and RMON on page 5
- Packet Filters on page 5

Access Control and Port Security

- **Support for 802.1X authentication on J-EX8200 switches**—802.1X provides network edge security by blocking access of devices attempting to connect to the LAN until their credentials are presented and matched on the authentication server (a RADIUS server). Support for 802.1X is the same on J-EX8200 switches as on other J-EX Series switches, with the exception of interfaces configured in multiple-suplicant or single-secure mode. The following configurations are not supported on J-EX8200 switches on interfaces in multiple-suplicant or single-secure mode:
 - Guest VLANs—Provides secure access to the LAN for corporate guests and for devices that fail the 802.1X authentication process.
 - Server-reject VLANs—Specifies that when the switch receives an Extensible Authentication Protocol Over LAN (EAPOL) Access-Reject message from the RADIUS authentication server, then devices attempting to access the LAN are moved to a specific VLAN and granted access.

- **Server fail fallback**—Allows you to specify how 802.1X supplicants (hosts) connected to the switch are supported if the RADIUS authentication server becomes unavailable or sends an EAPOL Access-Reject message.

Bridging, VLANs, and Spanning Trees

- **RSTP configuration with VSTP**—VSTP and RSTP can now be configured concurrently. When VSTP and RSTP are configured concurrently, the first 253 VLANs are configured with VSTP and the remaining VLANs are configured using RSTP. This feature allows users to overcome a previous restriction that only allowed VSTP to run on up to 253 VLANs while no other spanning-tree protocols could run on the additional VLANs.

RSTP and VSTP are the only spanning-tree protocols that can be configured concurrently on an J-EX Series switch.

Class of Service (CoS)

- **Enhancements to CoS rewrite rules on J-EX8200 switches**—The following enhancements have been made to CoS rewrite rules on J-EX8200 switches:
 - Rewrite rules based on multifield (MF) classifiers are now supported.
 - Rewrite rules can now be assigned to Layer 2 interfaces, in addition to the previously supported Layer 3 interfaces and routed VLAN interfaces (RVIs).
 - Rewrite rules are now supported for switched packets.
 - Each interface can have different rewrite rules. You are no longer limited to a single global rewrite rule for all interfaces on the switch.
- **Interface-specific IPv6 classifiers and rewrite rules**—J-EX4200 switches now allow you to configure and apply IPv6 classifiers and rewrite rules for each interface.

Infrastructure

- **Enhancements to power management on J-EX8200 switches**—Power management on J-EX8200 switches now allows you to configure certain aspects of its power budget policy, which determines how it manages the power supplies and allocates power to various components. You can:
 - Configure power management to manage the power supplies for N+N power redundancy instead of N+1 redundancy.
 - Assign a power priority to line cards. This allows higher priority cards to receive power when power is insufficient to power all line cards. Previously, when power was insufficient, all line cards were powered off. Now line cards receive power in priority order until available power is exhausted.
- **Distributed periodic packet management**—The responsibility for PPM processing on an J-EX Series switch is now distributed between the Routing Engine and either the access interfaces (on J-EX4200 switches) or the line cards (on J-EX8200 switches) by default. PPM previously ran solely on the Routing Engine. We recommend that you

disable distributed PPM and run PPM just on the Routing Engine *only* if there is a compelling reason to disable distributed PPM.

- **Enhancements to LCD menus**—Using CLI commands, administrators can disable the **Status** menu, the **Maintenance** menu, and the options in these menus to prevent users from viewing certain details about the switch and from configuring and troubleshooting the switch from the LCD menu.
- **IPv6 path maximum transmission unit discovery**—The IPv6 path maximum transmission unit (MTU) discovery feature is now available on J-EX8200 switches.

Layer 2 and Layer 3 Protocols

- **IPv6 virtual routing and forwarding (VRF) multicast**—IPv6 multicast traffic is now supported for VRF on J-EX4200, and J-EX8200 switches.

Management and RMON

- **802.1ag OAM support on J-EX4200 switches**—802.1ag is an IEEE standard for connectivity fault management (CFM). The following features are supported: continuity check protocol, linktrace protocol, and loopback protocols.
- **sFlow enhancements on J-EX Series switches**—You can configure the IP address to be assigned to the sFlow agent and the IP address to be used in sFlow datagrams. By configuring the IP addresses, you can ensure that the IP addresses are not dynamic and do not change when the switch restarts.

Packet Filters

- **Enhancements to firewall filter actions supported on J-EX8200 switches**—The **log**, **reject**, and **syslog** actions are now supported for ingress firewall filters on J-EX8200 switches. The **reject** action is supported on Layer 3 interfaces (router firewall filters) only.

Related Topics

- Changes in Default Behavior and Syntax in JUNOS Release 10.2 for J-EX Series Switches on page 5
- Limitations in JUNOS Release 10.2 for J-EX Series Switches on page 6
- Outstanding Issues in JUNOS Release 10.2 for J-EX Series Switches on page 9

Changes in Default Behavior and Syntax in JUNOS Release 10.2 for J-EX Series Switches

The following changes in system behavior, configuration statement usage, or operational mode command usage have occurred since the previous release and might not yet be documented in the JUNOS Software for J-EX Series switches documentation.

Access Control and Port Security

- The following enhancements have been made to the **show lldp** commands:
 - The **show lldp local-information** command now includes information about the local management address and type.

- The **show lldp neighbors** command now includes the ageout count, which is the number of times the neighbor information has been deleted from the LLDP information maintained by the local system because the information timeliness interval has expired.
- The **show lldp**, **show lldp local-information**, **show lldp neighbors**, and **show lldp statistics** commands now display the parent aggregated Ethernet interface, if any, to which a local interface belongs.

Infrastructure

- On J-EX Series switches, the **sip-server** statement in the **[edit system services dhcp]** hierarchy is now supported, allowing explicit configuration of SIP server addresses for DHCP servers.
- As a result of the enhancements to power management in JUNOS Release 10.2, a line card that has been taken offline is not automatically brought online when you commit a configuration, as was true in previous releases. When a line card is taken offline, power management no longer allocates power to the line card. To bring a line card online, you must explicitly bring the line card online with the **request chassis fpc slot slot-number online** command or with the **set chassis fpc slot-number power on** command.

Layer 2 and Layer 3 Protocols

- J-EX Series switches now support the **show multicast rpf instance instance-name** command.
- The **iso** option is not available in the **show pfe route** command because it is not supported on J-EX Series switches.

User Interface and Configuration

- On J-EX4200 switches, the **request system power-off other-routing-engine** command and the **request system power-off both-routing-engines** command are disabled.
- If you enable PIM on all interfaces using the **interface all** command, it is not enabled on the **me0** and **vme** interfaces by default. Therefore you do not need to explicitly disable PIM on the management interfaces. Previously, enabling PIM on all interfaces caused it to be enabled on these management interfaces.

- Related Topics**
- [New Features in JUNOS Release 10.2 for J-EX Series Switches on page 3](#)
 - [Limitations in JUNOS Release 10.2 for J-EX Series Switches on page 6](#)
 - [Outstanding Issues in JUNOS Release 10.2 for J-EX Series Switches on page 9](#)

Limitations in JUNOS Release 10.2 for J-EX Series Switches

This section lists the limitations in JUNOS Release 10.2R1 for J-EX Series switches.

Access Control and Port Security

- When you have configured more than 1024 supplicants on a single interface, 802.1X authentication might not work as expected and the 802.1X process (**dot1xd**) might fail.

- The RADIUS request sent by a J-EX Series switch contains both Extensible Authentication Protocol (EAP) Identity Response and State attributes.
- When an external RADIUS server goes offline and comes back online after some time, subsequent captive portal authentication requests might fail until the **authd** daemon is restarted. As a workaround, you can configure the revert interval—the time after which to revert to the primary server—and restart the **authd** daemon.

Bridging, VLANs, and Spanning Trees

- On J-EX Series switches, configuring more than 64,000 MAC address clone routes in a single VLAN causes the Routing Engine to create core files and reboot.

Class of Service

- On J-EX8200 switches, classification of packets using ingress firewall filter rules with forwarding-class and loss-priority configurations does not rewrite the DSCP or 802.1p bits. Rewriting of packets is determined by the forwarding-class and loss-priority values set in the DSCP classifier applied on the interface.
- On J-EX4200 switches, the traffic is shaped at rates above 500 Kbps, even when the shaping rate configured is less than 500 Kbps. The minimum shaping rate is 500 Kbps.

Firewall Filters

- On J-EX4200 switches, when interface ranges or VLAN ranges are used in configuring firewall filters, egress firewall filter rules take more than 5 minutes to install.
- On J-EX4200 switches, IGMP packets are not matched by user-configured firewall filters.

Infrastructure

- On J-EX Series switches, an SNMP query fails when the SNMP index size of a table is greater than 128 bytes, because the Net SNMP tool does not support SNMP index sizes greater than 128 bytes.
- On J-EX Series switches, the **show snmp mib walk etherMIB** does not display any output, even though the **etherMIB** is supported. This occurs because the values are not populated at the module level—they are populated at the table level only. You can issue **show snmp mib walk dot3StatsTable**, **show snmp mib walk dot3PauseTable**, and **show snmp mib walk dot3ControlTable** commands to display the output at the table level.
- When you issue the **request system power-off** command, the switch halts instead of turning off power.
- In the J-Web interface, the Ethernet Switching monitoring page might not display monitoring details if there are more than 13,000 MAC entries on the switch.
- In the J-Web interface, changing the port role from Desktop, Desktop and Phone, or Layer 2 Uplink to another port role might not remove the configurations for enabling dynamic ARP inspection and DHCP snooping.

- On J-EX8200 switches, if IS-IS is enabled on routed VLAN interfaces (RVIs), IS-IS adjacency states go down and come up after a graceful Routing Engine switchover (GRES).
- Momentary loss of an inter-Routing Engine IPC message might trigger the alarm that displays the message **Loss of communication with Backup RE**. There is no functionality affected.

Interfaces

- J-EX Series switches do not support queued packet counters. Therefore, the queued packet counter in the output of the **show interfaces *interface-name* extensive** command always displays a count of 0 and is never updated.
- The following message might appear in the system log:

```
Resolve request came for an address matching on Wrong nh nh:355,  
type:Unicast...?
```

You can ignore this message.

- On J-EX4200 switches, when port mirroring is configured on any interface, the mirrored packets leaving a tagged interface might contain an incorrect VLAN ID.
- On J-EX8200 switches, port mirroring configuration on a Layer 3 interface with the output configured to a VLAN is not supported.
- On J-EX8200 switches, when an egress VLAN that belongs to a routed VLAN interface (RVI) is configured as the input for a port mirroring analyzer, the analyzer incorrectly appends a dot1q (802.1Q) header to the mirrored packets or does not mirror any packets at all. As a workaround, configure a port mirroring analyzer with each port of the VLAN as egress input.
- The following interface counters are not supported on routed VLAN interfaces (RVIs): local statistics, traffic statistics, and transit statistics.
- J-EX Series switches do not support IPv6 interface statistics. Therefore, all values in the output of the **show snmp mib walk ipv6IfStatsTable** command always display a count of 0.
- The **show interfaces *interface-name* detail | extensive** command might display double counting of packets or bytes for the transit statistics and traffic statistics counters. You can use the counter information displayed under the **Physical interface** section of the output.

Layer 2 and Layer 3 Protocols

- On J-EX4200 switches, IPv6 ping is not supported for more than 64 virtual routing and forwarding (VRF) addresses.

- Related Topics**
- [New Features in JUNOS Release 10.2 for J-EX Series Switches on page 3](#)
 - [Changes in Default Behavior and Syntax in JUNOS Release 10.2 for J-EX Series Switches on page 5](#)
 - [Outstanding Issues in JUNOS Release 10.2 for J-EX Series Switches on page 9](#)

Outstanding Issues in JUNOS Release 10.2 for J-EX Series Switches

The following are outstanding issues in JUNOS Release 10.2R1 for J-EX Series switches. The identifier following the description is the tracking number in our bug database.

- Access Control and Port Security
- Bridging, VLANs, and Spanning Trees
- Class of Service
- Infrastructure
- Interfaces
- J-Web Interface
- Layer 2 and Layer 3 Protocols
- Virtual Chassis

Access Control and Port Security

- On J-EX Series switches, when you enable and disable IPv6 on the management interface (**me0**), the management information is not displayed in the **show lldp local-information** command output. [PR/503955]
- On J-EX4200 switches, the LLDP-MED Location ID contains incorrect Type, Length, and Value (TLV). [PR/521658]
- On J-EX4200 switches, deleting a static MAC address entry from the Ethernet switching table does not change the authentication status for the interface in the 802.1X table with MAC RADIUS, and the interface remains authenticated. [PR/523919]
- On J-EX4200 switches with static MAC bypass of authentication configured, MAC address learning takes a few minutes after the MAC address table is cleared. [PR/524044]
- On J-EX Series switches, you might experience traffic drops under certain network conditions, even though the user is authenticated. As a workaround, you may restart the dot1x-protocol. [PR/524675, 528691]

Bridging, VLANs, and Spanning Trees

- There might be traffic loss on VLANs learned through MVRP during GRES. After the GRES, there will not be any traffic loss. [PR/458303]
- On J-EX Series switches, in a scaled environment with more than 4000 VLANs, MVRP advertisements might not be sent intermittently when the VLAN membership is modified. [PR/475701]

Class of Service

- On J-EX4200 switches, the **show interface queue** command output displays the count of transmitted packets and queued packets together under the field **Queued** instead of displaying the values under **Queued** and **Transmitted** fields. [PR/259525]
- If you are configuring an interface as part of an aggregated Ethernet interface and also configuring CoS on that interface, do not commit both configurations using a single

commit operation. Use separate commit operations to commit the two configurations. [PR/490542]

Infrastructure

- On J-EX Series switches, MAC addresses not present in the forwarding database (FDB) because of hash collision are not removed from the Ethernet switching process (**eswd**). These MAC addresses do not age out of the Ethernet switching table even if traffic is stopped completely and are never relearned when traffic is sent to these MAC addresses, even when there is no hash collision. As a workaround, clear those MAC addresses from the Ethernet switching table. [PR/451431]
- On J-EX Series switches, the static neighbor discovery protocol (NDP) entries for IPv6 addresses are cleared automatically after some time. [PR/453710]
- On J-EX8200 switches, when IGMP snooping is enabled on an interface, the IPv6 multicast Layer 2 control frame is not forwarded to other interfaces in the same VLAN. [PR/456700]
- On J-EX4200 switches with GRES enabled, when a backup member switch has a route to a destination whose egress member is on the backup member itself, packets generated on the backup member egress out of the switch. [PR/506119]
- On J-EX Series switches, the **clear interface statistics all** command takes a long time to execute. [PR/509303]
- On J-EX4200 switches, the headers in ARP requests sent from a virtual IP address contain the virtual IP address as the source address instead of the virtual MAC address. [PR/512488]
- On J-EX8200 switches with a 10-gigabit uplink port, when the Routing Engine is switched over, the 10-Gigabit uplink port stops forwarding traffic in the egress direction. [PR/515011]
- On J-EX8200 switches, the output of an SNMP walk on **jnxOperatingTemp** and **jnxFruTemp** does not show the temperature for line cards. [PR/524112]

Interfaces

- On J-EX8200 switches, aggregated Ethernet interfaces might go down and come back up for a few minutes while the switch is updating many routes. [PR/416976]
- On J-EX8200 switches, after enabling GRES, you might not be able to connect to the management interface on the backup Routing Engine using Telnet, and an existing Telnet session with the management interface on the backup Routing Engine might become inactive. [PR/520966]
- On J-EX8200 switches, the following message is logged frequently in the **/var/log/mastership** file:

```
mcontrol_refresh_mastership: time 6
```

These messages are harmless.

[PR/522513]

- On J-EX8200 switches, when a firewall filter is applied on the loopback (**lo0**) interface, the switch stops generating local ARP requests for transit traffic. As a workaround, you can do the following:
 - Create firewall filters to block known unwanted traffic to the Routing Engine, and then accept all other traffic.
 - Create firewall filters for specific hosts and all local subnets, and then discard all other traffic.

[PR/486443]

J-Web Interface

- In the J-Web interface, you cannot commit some configuration changes in the Ports Configuration page and the VLAN Configuration page because of the following limitations for port mirroring ports and port mirroring VLANs:
 - A port configured as the output port for an analyzer cannot be a member of any VLAN other than the default VLAN.
 - A VLAN configured to receive analyzer output can be associated with only one port.

[PR/400814]

- In the J-Web interface, uploading a software package to the switch might not work properly if you are using Internet Explorer version 7. [PR/424859]
- If an SRE module, RE module, SF module, line card, or Virtual Chassis member is in offline mode, the J-Web interface might not update the dashboard image accordingly. [PR/431441]
- In the J-Web interface, in the Port Security Configuration page, you are required to configure **action** when you configure **MAC limit** even though configuring an **action** value is not mandatory in the CLI. [PR/434836]
- In the J-Web interface, interfaces configured with **no-flow-control** might be displayed in the Link Aggregation Configuration page. [PR/437410]
- In the J-Web interface, in the OSPF Global Settings table in the OSPF Configuration page, the Global Information table in the BGP Configuration page, or the Add Interface window in the LACP Configuration page, if you try to change the position of columns using the drag-and-drop method, only the column header moves to the new position instead of the entire column. [PR/465030]
- In the J-Web interface, in the OSPF Configuration page (**Configuration > Routing > OSPF**), the Traceoptions tab in the Edit Global Settings window does not display the available flags (tracing parameters). As a workaround, use the CLI to view the available flags. [PR/475313]
- When you have a large number of static routes configured and if you have navigated to pages other than page 1 in the Route Information table in the J-Web interface (**Monitor > Routing > Route Information**), changing the **Route Table** to query other routes refreshes the page but does not return to page 1. For example, if you run the query from page 3 and the new query returns very few results, the Results table

continues to display page 3 and shows no results. To view the results, navigate to page 1 manually. [PR/476338]

- In the J-Web interface, the dashboard does not display the uplink ports or uplink module ports when transceivers are not plugged into the ports. [PR/477549]
- An IPv4 static route that has been configured using the CLI might not be displayed when you select the **Configure > Routing > Static Routing** option in the J-Web interface. [PR/483885]
- In the J-Web interface, when you use the point-and-click configuration editor to change configuration and if you have made configuration changes simultaneously using the CLI, committing the configuration from J-Web might fail. [PR/514771]
- In the J-Web interface, no warnings are displayed when you have configuration changes that are not committed and when you upload and install software packages or reboot the switch. [PR/514853]
- In the J-Web interface, if RIP, BGP, OSPF, and DHCP are not configured, you cannot click the links Commit, Help, and Logout in the monitoring pages for RIP, BGP, OSPF, and DHCP because the message “Not configured” that appears on these pages masks the Commit, Help, and Logout links in the J-Web interface. [PR/528346]

Layer 2 and Layer 3 Protocols

- If an J-EX8200 switch receives an IGMP packet of unknown type, the switch might flood the packet on all interfaces, including the ingress interface from which the packet was received. [PR/502248]
- On J-EX4200 switches, if you have configured MTU on a logical interface and the route information for an inactive route on the interface changes, traffic loss might occur for a few seconds. [PR/520448]

Virtual Chassis

- On J-EX4200 switches, factory default configuration does not set the configuration required for pre-provisioning, causing the **set system commit factory-settings reset-virtual-chassis-configuration** command to be not available after the switch is reset to the factory default configuration. As a workaround, delete the **junos.conf*** files from the **config** directory and reset the switch to factory default configuration. [PR/506855]

- Related Topics**
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Dell Documentation and Release Notes

To download the hardware documentation for your product and the JUNOS Software documentation for PowerConnect J-Series J-EX Series products , see the following Dell support website:

<http://www.support.dell.com> .

To download JUNOS Software documentation for all other PowerConnect J-Series products, see the following Juniper Networks support website:

<http://www.juniper.net/techpubs/> .

If the information in the latest release notes differs from the information in the documentation, follow the release notes.

Requesting Technical Support

For technical support, see <http://www.support.dell.com> .

Revision History

28 May 2010—Revision 1, JUNOS Release 10.2R1

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