

Release Notes

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Junos OS Evolved Release 22.4R3

Introduction

Use these release notes to find new and updated features, software limitations, and open issues for Junos OS Evolved Release 22.4R3.

For more information on this release of Junos OS Evolved, see [Introducing Junos OS Evolved](#).

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These release notes accompany Junos OS Evolved Release 22.4R3 for ACX7100-32C and ACX7100-48L devices. They describe new and changed features, limitations, and known and resolved problems in the hardware and software.

What's New

There are no new features or enhancements to existing features in this release for ACX Series routers.

What's Changed

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Learn about what changed in these releases for ACX Series routers.

General Routing

- The packet rate and byte rate fields for LSP sensors on AFT (with the legacy path) have been renamed as `jnx-packet-rate` and `jnx-byte-rate` and is in parity with the UKERN behavior. Previously, these rate fields were named as `packetRate` and `byteRate`.
- Before this change most list were ordered by the sequence in which the user configured the list items, for example a series of static routes. After this change the list order is determined by the system with items displayed in numerical sequence rather than by the order in which the items were configured. There is no functional impact to this change.
- **Label-switched interface (LSI) delay during reboot (ACX Series)**— Rebooting ACX Series routers running Junos OS Evolved with a class-of-service routing-instance configuration might encounter errors due to a delay with the label-switched interface (LSI). LSI state information has been added to the output of the `show route instance` command to assist in the analysis of such errors.

[See [show route instance](#).]

Junos XML API and Scripting

- **Ability to commit extension-service file configuration when application file is unavailable**—When you set the optional option at the `[edit system extension extension-service application file varname file-name]` hierarchy level, the operating system can commit the configuration even if the file is not available at the `/var/db/scripts/jet` file path.

[See [file \(JET\)](#).]

- **Ability to restart restart daemonized applications**—Use the `request extension-service restart-daemonize-app application-name` command to restart a daemonized application running on a Junos OS Evolved device. Restarting the application can assist you with debugging and troubleshooting.

[See [request extension-service restart-daemonize-app](#).]

Network Management and Monitoring

- **Changes to the NETCONF server's <rpc-error> element when the operation="delete" operation deletes a nonexistent configuration object (ACX Series, PTX Series, and QFX Series)**—We've changed the <rpc-error> response that the NETCONF server returns when the <edit-config> operation uses operation="delete" to delete a configuration element that is absent in the target configuration. The error severity is error instead of warning, and the <rpc-error> element includes the <error-tag>data-missing</error-tag> and <error-type>application</error-type> elements.
- **Changes to the RPC response for <validate> operations in RFC-compliant NETCONF sessions (ACX Series, PTX Series, and QFX Series)**—When you configure the rfc-compliant statement at the [edit system services netconf] hierarchy level, the NETCONF server emits only an <ok/> or <rpc-error> element in response to <validate> operations. In earlier releases, the RPC reply also includes the <commit-results> element.

Routing Protocols

- Prior to this change the output of the show isis spring flex-algorithm | display xml command was invalidly formatted when multiple flex algorithm instances were configured. With the change, the XML output is properly structured showing flex algorithm information for each instance. A new XML tag **isis-spring-flex-algorithm** is added to bundle information for each instance.
- In Junos OS Evolved platforms, show route snooping and show route forwarding-table does not show /56 routes in the VPLS address family table.

User Interface and Configuration

- **Viewing files with the file compare files command requires users to have maintenance permission**— The file compare files command in Junos OS and Junos OS Evolved requires a user to have a login class with maintenance permission.

[See [Login Classes Overview](#).]

Known Limitations

There are no known limitations in hardware or software in this release for ACX Series routers.

For the most complete and latest information about known Junos OS Evolved defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

Open Issues

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Learn about open issues in this release for ACX Series routers.

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Class of Service (CoS)

- CoS commit validation is missing for classifier when using code-point-aliases. The user can configure duplicate code-point-aliases and use them in a classifier. This results in a cosd crash. The system can be recovered by correcting the configuration and applying the `restart class-of-service` command. [PR1766873](#)

EVPN

- On all platforms, MAC-IP route deletion and addition are triggered when re-ARP (Address Resolution Protocol) on MH (Multihoming) device fails in the EVPN-MPLS multihoming scenario resulting in traffic drop. [PR1691132](#)

General Routing

- Ungraceful removal (OIR) of FPC or an FPC fault might result in PCIE MAJOR alarm **PCI Uncorrected error on dev 0000:00:03.0** which does not get cleared. [PR1620197](#)
- Ipv6 transit traffic statics output is missing. [PR1620197](#)
- When TCP main and TCP remain attached together on the physical interface, it is observed that improper scheduler MAP gets configured on HQoS physical interface while sched params modification and bind are performed on the same commit. This is a sequence issue from CoSD (Routing Engine) which is not guaranteed on the Packet Forwarding Engine side. [PR1664785](#)
- HQoS - VoQ statistics issue during scaled configuration with congestion. In scaled HQoS configuration with congestion across all queues due to unavailability of the system level packet buffers, packets are dropped irrespective of the queue priorities. These dropped packets are not accounted as part of queue statistics. [PR1674669](#)
- In ACX7509, time error spike is seen with PTP long run. [PR1697093](#)
- Interface command gives truncated outputs, response stuck and statistics not displayed when unrelated FPC restarts. [PR1698532](#)
- In Junos OS Evolved ACX platforms we can configure only a single same unique MAC system wide in virtual-gateway-v4-mac and one virtual-gateway-v6-mac for any number of logical interfaces. Configuring different MAC values for different logical interfaces is not supported. However, the MAC value configured for v4 and v6 CLI can be the same MAC or different values.
[PR1708967](#)
- Trigger: In the scaled setup with SRv6 micro SID for L3VPN VRFs (~2K) enabled in a single commit, few initial VRF might experience traffic outage. Workaround: Deactivating and re-activating only the failed VRFs resolves the problem. [PR1726481](#)
- We might encounter jdhcpd core file during initialization. The core file is rare, and there is no service impact because of this core file (as the process recovers immediately). [PR1730717](#)
- 1. On L3 interface (inet/inet6/mpls), if user configures IEEE802.1p classifier alone, then all the flow (inet/inet6/mpls) is classified. If additional non IEEE802.1p classifier (DSCP/EXP etc.,) is mapped to the same interface, then the unmapped family is not classified and is handled as best effort mode.
- 2. In L2 interface (ethernet-switching), if user configures IEEE802.1p classifier alone, then all the flow (l2/v4/v6/exp) is classified. If additional non IEEE802.1p classifier (DSCP/EXP etc.,) is mapped to the same interface, then the unmapped family is not classified and is handled as best effort mode. Work around: User has to configure classifiers for all the families to do proper classification.

PR1713158

- ACX7509 :: DHCP Daemon not running in the new primary Routing Engine post GRES, all DHCPv4/v6 sessions are lost. [PR1740530](#)
- On Junos OS Evolved ACX7100 platforms, the Packet Forwarding Engine process crashes when unsupported port speed is configured and MACSec (MAC Security) is enabled on the interface configured with unsupported port speed. Due to this issue, there is complete traffic loss of forwarding traffic till the Packet Forwarding Engine process restarts. [PR1755883](#)
- The evo-pfemamd process is observed to crash on Junos Evolved platforms with LACP configuration. [PR1756648](#)

Interfaces and Chassis

- On Junos OS Evolved ACX Series platforms, VRRP(Virtual Router Redundancy Protocol) processes fail if delegate-processing ae-irb is configured. [PR1747838](#)
- ACX7332: After multiple reboots, GL is stuck and after power cycle seeing picd and vmcore.

Resolved Issues

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Learn about the issues fixed in this release for ACX Series routers.

For the most complete and latest information about known Junos OS Evolved defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

Class of Service (CoS)

- Duplicate code points through code-point-aliases under a classifier results in cosd crash. [PR1766873](#)

EVPN

- Traffic drop is observed in EVPN-VXLAN CRB scenario. [PR1734091](#)

General Routing

- [jdhcpd] Multiple DHCP release packets sent to the DHCP server in IRB VGA with EVPN/MPLS ERB model. [PR1693625](#)
- Timingd process crashes and core file is generated with PTPolRB configuration when the IRB interface is not linked to any interface. [PR1701122](#)
- On all ACX7509 Junos OS Evolved platforms, after multiple FPC restarts occasionally MAcsec sessions are stuck down and requires a reboot to recover. [PR1701941](#)
- On all Junos Evolved platforms, after changing the IS-IS LSP maximum size to a lower value and apply a Routing Engine switchover a fibd core file is observed. [PR1710227](#)
- Junos OS Evolved: ACX: [Error] RT : Cleaning up 1 acks without processing. [PR1713005](#)
- BFD sessions are impacted when the logical interface is being repeatedly shut or no shut. [PR1715008](#)
- ACX7100-32C Junos OS Evolved: Router does not reply to RS message with VXLAN. [PR1720541](#)
- Inline BFD packets are sent to egress Q0. [PR1721356](#)
- Occasional FPC crash and traffic loss is observed with a scaled number of FIB routes. [PR1722270](#)
- Post changing MCAE mode from Active-Active to Active-Standby causes incomplete object state and system. [PR1722626](#)
- **/lib/systemd/system/docker.socket is marked executable** logs flood after system reboot. [PR1727524](#)
- Getting false alarm **Optics does not support configured speed** for 1G SFP-LX. [PR1733956](#)
- ACX7509: Interfaces might not come back after primary FEB is restarted (from CLI) with 1GE interfaces present. [PR1734506](#)

- ACX7024 sZTP: System not bootable after request system zeroize. [PR1740989](#)
- When hierarchical-scheduler is setup, the inline IPv4 BFD session on ACX7024 is flaps. [PR1735836](#)
- Control plane takes a long time to learn the multicast routes (scaled scenario). [PR1736171](#)
- Traffic congestion on control plane in Junos OS Evolved ACX platforms. [PR1736892](#)
- MPLS tunnel creation failure is observed post continuous network / route churn / IGP flaps on Junos OS Evolved based ACX Series platforms [PR1739112](#)
- Junos OS Evolved:ACX7024: evo-pfemamd.re generates a core file at IO_new_file_underflow (fp=0x7f584a4917e0 <_IO_2_1_stdin_>) at libioP.h:948 [PR1739175](#)
- On all Junos Evolved platforms which use fan tray and fan tray controllers both, FTC X FTC FPGA minimum supported firmware version mismatch alarm raised with FTC OIR. [PR1739842](#)
- DHCP daemon **jdhcpcd** does not start in the new primary Routing Engine after GRES is performed. [PR1740530](#)
- IFD does not come up whenever optics is removed and inserted on all Junos OS Evolved platforms.[PR1742772](#)
- Transient multicast traffic drop on ACX Series Junos OS Evolved device. [PR1742792](#)
- Due to the split-horizon filter mis-programming (or lack thereof), BUM packets can loop around between ESI LAG peers, sending multiple copies down to the host. [PR1744725](#)
- Traffic loss observed on interface using ethernet-switching interface-mode trunk. [PR1745163](#)
- Traffic loss observed in scenario where default route is received over multiple paths with link protection. [PR1747512](#)
- Traffic loss due to unknown multicast control packets get dropped in non-default VRF. [PR1748231](#)
- ARP dependency issue causes issue between IRB and the device. [PR1751006](#)
- EVPN MPLS: ARP/ND: Does not get resolved in vlan-based EVPN service. [PR1751135](#)
- Memory leak due to MAC moves or any operation contributing to the changes leads to MAC route changes. [PR1756208](#)
- BFD sessions go down on BFDD restart with 1k Scale BFD configuration. [PR1757649](#)
- Layer 2 loop can be seen on Junos OS Evolved ACX Series platforms after reboot. [PR1765507](#)
- BFD sessions go on BFDD restart with scale 1k and above BFD sessions. [PR1767297](#)

- In the scaled Layer 2 circuit configured with Layer 2 circuit redundancy configuration, traffic drops might be observed. [PR1775809](#)
- PFE crash seen on Junos OS Evolved platforms due to upstream interface change. [PR1771209](#)

Infrastructure

- Junos OS Evolved devices might lose remote access in certain scenarios. [PR1719603](#)

Platform and Infrastructure

- RFC2544 in VRF instance [l2vpn/evpn-vpws] does not accept routing-instance value in Operational CLI. [PR1696146](#)

User Interface and Configuration

- The system might ask for password while saving configuration files on single Routing Engine platforms. [PR1665008](#)

Junos OS Evolved Release Notes for PTX10001-36MR, PTX10003, PTX10004, PTX10008, and PTX10016 Devices

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These release notes accompany Junos OS Evolved Release 22.4R3 for PTX10001-36MR, PTX10003, PTX10004, PTX10008, and PTX10016 Packet Transport Routers. They describe new and changed features, limitations, and known and resolved problems in the hardware and software.

What's New

There are no new features or enhancements to existing features in this release for PTX Series routers.

What's Changed

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Learn about what changed in these releases for PTX Series routers.

General Routing

- The packet rate and byte rate fields for LSP sensors on AFT (with the legacy path) have been renamed as `jnx-packet-rate` and `jnx-byte-rate` and is in parity with the UKERN behavior. Previously, these rate fields were named as `packetRate` and `byteRate`.
- **Single source of data for operational state sensor leaves (PTX10008)**— You can use the `suppress-interface-leaf` CLI statement to suppress telemetry streaming of the following sensors from the packet forwarding engine (PFE): `/interfaces/interface/state/high-speed` `/interfaces/interface/state/oper-status` This might be required for collectors that require a single source of data for each sensor.

[See [suppress-interface-leaf](#).]

- Before this change most list were ordered by the sequence in which the user configured the list items, for example a series of static routes. After this change the list order is determined by the system with items displayed in numerical sequence rather than by the order in which the items were configured. There is no functional impact to this change.

Interfaces and Chassis

- Starting in Junos OS Evolved release 23.2R1-EVO, the output of `show chassis power` command displays the state of the power supply in PTX10003 and QFX10003 platforms.

[See [show chassis power](#).]

Junos XML API and Scripting

- **Ability to commit extension-service file configuration when application file is unavailable**—When you set the optional option at the `[edit system extension extension-service application file file-name]` hierarchy level, the operating system can commit the configuration even if the file is not available at the `/var/db/scripts/jet` file path.

[See [file \(JET\)](#).]

- **Ability to restart restart daemonized applications**—Use the `request extension-service restart-daemonize-app application-name` command to restart a daemonized application running on a Junos device. Restarting the application can assist you with debugging and troubleshooting.

[See [request extension-service restart-daemonize-app](#).]

Licensing

- **LSPs scale license**—Starting in 22.4R3 and 23.4R1 Junos OS Evolved releases, the license counts only the Resource Reservation Protocol-Traffic Engineering (RSVP-TE) and Segment Routing Traffic Engineering (SR-TE) LSPs. Prior to the 22.4R3 and 23.4R1 Junos OS Evolved releases, license counts all Traffic Engineering (TE) such as RSVP-TE and SR-TE and non-TE such as LDP, BGP-LU, L-ISIS, L-OSPF LSPs.

[See [Software Licenses for PTX Series Routers](#).]

Network Management and Monitoring

- **Changes to the NETCONF server's `<rpc-error>` element when the `operation="delete"` operation deletes a nonexistent configuration object (ACX Series, PTX Series, and QFX Series)**—We've changed the `<rpc-error>` response that the NETCONF server returns when the `<edit-config>` operation uses `operation="delete"` to delete a configuration element that is absent in the target configuration. The error severity is error instead of warning, and the `<rpc-error>` element includes the `<error-tag>data-missing</error-tag>` and `<error-type>application</error-type>` elements.
- **Changes to the RPC response for `<validate>` operations in RFC-compliant NETCONF sessions (ACX Series, PTX Series, and QFX Series)**—When you configure the `rfc-compliant` statement at the `[edit system services netconf]` hierarchy level, the NETCONF server emits only an `<ok/>` or `<rpc-error>` element in response to `<validate>` operations. In earlier releases, the RPC reply also includes the `<commit-results>` element.

Routing Protocols

- Prior to this change the output of the `show isis spring flex-algorithm | display xml` command was invalidly formatted when multiple flex algorithm instances were configured. With the change, the XML output is properly structured showing flex algorithm information for each instance. A new XML tag **`isis-spring-flex-algorithm`** is added to bundle information for each instance.
- In Junos OS Evolved platforms, `show route snooping` and `show route forwarding-table` does not show /56 routes in the VPLS address family table.

User Interface and Configuration

- **Viewing files with the `file compare files` command requires users to have maintenance permission**— The `file compare files` command in Junos OS and Junos OS Evolved requires a user to have a login class with maintenance permission.

[See [Login Classes Overview](#).]

Known Limitations

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Learn about limitations in this release for PTX Series routers.

For the most complete and latest information about known Junos OS Evolved defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

Routing Protocols

- When `routing-options transport-class fallback none` is not configured - do not configure more than 10 transport-classes or advertise more than 10 distinct colors in SRTE or FlexAlgo. [PR1648490](#)
- An improper check or handling of exceptional conditions vulnerability in Routing Protocol Daemon (rpd) Juniper Networks Junos OS Evolved allows an unauthenticated, network-based attacker to cause a Denial of Service (DoS). [PR1731803](#)

Open Issues

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Class of Service

- CoS commit validation is missing for classifier when using code-point-aliases. The user can configure duplicate code-point-aliases and use them in a classifier. This will result in a cosd crash. The system can be recovered by correcting the config and applying the restart class-of-service command. [PR1766873](#)

General Routing

- Some of the frequencies fail performance for PTP-PTP and PTP-1PPS. [PR1624478](#)
- On all devices running Junos OS Evolved, where this is a high BGP scale with flapping route and the BGP Monitoring Protocol (BMP) collector or station is very slow, the rpd process might crash due to memory pressure. [PR1635143](#)
- The OpenSSL project has published security advisories for multiple vulnerabilities resolved in OpenSSL. [PR1661450](#)

- Layer 2 related daemons - lacpd, ifmand, and arpd - when patched using JSU might cause the Junos OS Evolved device to not boot up. [PR1676132](#)
- Class B performance per G.8273.2 is supported only when FEC is enabled on both the primary and backup ports of the T-BC (default option). [PR1683579](#)
- With sharding enabled, BGP flags such as the following are not displayed on active route in show route extensive output: **Accepted Multipath MultipathContrib MultiNexthop** Per shard view, using show route extensive prefix rib-sharding shard-name shows these flags. [PR1693207](#)
- Lo0 filter change might trigger parity error, when filter is changed from ISF to Non ISF or vice versa. [PR1709204](#)
- On Junos OS Evolved platforms, the dcpfe (Dense Concentrator Packet Forwarding Engine) process crash will be observed due to memory fragmentation issue. This is a very rare case and would impact traffic as due to dcpfe failure the PFE restarts, so the interfaces will flap. [PR1711860](#)
- On all Junos OS Evolved platforms, mustd process crash happens when installing the license key before upgrading the device. [PR1716441](#)
- We might encounter jdhcpd core during initialization. The core is rare, and there is no service impact because of this core (as the process recovers immediately). [PR1730717](#)
- On all Junos OS Evolved platforms, VMcores are seen when MACsec (Media Access Control Security) key-chains and BGP (Border Gateway Protocol) configurations are applied through Netconf. [PR1732611](#)
- With a two-color policer configured on aggregate Ethernet interfaces, the queue-counters-trans-bytes-rate counter might display an incorrect value. [PR1735087](#)
- On PTX1010004, PTX10008, and PTX10016 Junos OS Evolved platforms, BITS port LED color of Physical / CLI show chassis synchronization extensive/ MIB jnxLEDState do not match. [PR1738022](#)
- On PTX10008, PTX10016 and PTX10004 platforms, the Routing Engine mated on the Control Board are one FRU (Field Replaceable Unit). Upon Routing-Engine replacement the Control-board might be stuck in state 'Present' while the Routing Engine is fully operational and online. To get the Control Board back online, execute the following command request chassis cb slot <slot> online. [PR1747567](#)
- Since Junos OS Evolved version 22.2R1 and higher L2TP session ID is used for load balancing hash-key. 8 Bytes got extracted while the Session ID is 4 Byte. The other 4 bytes are from the cookie part and if this portion is random the L2TP packet flow will be balanced instead of using a single link and may cause out of order packet flow. [PR1769545](#)
- On all Junos OS Evolved platforms, committed configuration files are not preserved post software version rollback operation. The actual configuration is not affected. [PR1779593](#)

Infrastructure

- A use after free vulnerability in the kernel of Juniper Networks Junos OS Evolved allows an unauthenticated, network-based attacker to cause a Denial of Service (DoS). [PR1636063](#)

Interfaces and Chassis

- On Junos OS Evolved PTX10000 platforms, the vmcore might be seen if any component is forcefully removed from the PCI (Peripheral Component Interconnect) bus. [PR1739142](#)

Network Management and Monitoring

- On Junos OS Evolved platforms, SNMP walk table (ipNetToMediaPhysAddress) is not updated when a neighbour entry is configured. [PR1704878](#)
- This issue is seen very rarely when jnxCos related mibs are queried at a high rate and FPCs are down or unable to respond back to the query. [PR1760937](#)

Routing Policy and Firewall Filters

- On all Junos OS Evolved platforms where Openconfig routing policies are configured, deleting a single prefix from prefix-list deletes all the prefixes. [PR1691218](#)
- On all Junos OS Evolved platforms, modifying multiple firewall filters followed by the commit and use of load update to apply changes will lead to aftman crash. Traffic is not impacted as the issue is due to an invalid configuration. [PR1760210](#)

Routing Protocols

- On all Junos OS Evolved platforms with dual Routing Engine, after back to back Graceful Routing Engine switchover (GRES) is performed, the periodic packet management process (ppmd) crash is seen. [PR1702687](#)

- On all Junos OS Evolved platforms, when the sBFD (seamless Bidirectional Forwarding Detection) responder is configured with local-discriminator, the Loopback interface (lo0) value is set to 0 causing error messages and improper working of the sBFD responder. [PR1725731](#)

Resolved Issues

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Learn about the issues fixed in this release for PTX Series routers.

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Class of Service (CoS)

- Duplicate code points through code-point-aliases under a classifier results in cosd crash. [PR1766873](#)

EVPN

- Traffic drop is observed in EVPN-VXLAN CRB scenario. [PR1734091](#)

General Routing

- The license might get out of sync between primary and backup Routing Engines. [PR1658869](#)
- Scale issue on Layer 2 interfaces in SP mode. [PR1690635](#)
- [Error] CTRL:CFM:: PpmCtrlProtoCfm::getSessionKey: Unknown Cfm transmit session type params0x0 () can be seen when router is rebooted with CFM configuration. [PR1695518](#)
- BFD does not work after Packet Forwarding Engine is restarted. [PR1699323](#)
- The snmp mib walk jnxOperatingState on fan tray X returns running (2), although fan tray X speed is set to full-speed. [PR1701983](#)
- PTX10004, PTX10008, PTX10016 Junos OS Evolved : GARP is not sent from new primary Routing Engine's management interface upon Routing Engine switchover. [PR1705245](#)
- The evo-aftmand crash can be seen on PTX Series Junos OS Evolved platforms. [PR1705536](#)
- Junos OS Evolved :PTX10003:JDI-RCT: app-controller anomalies of type net::juniper::interfaces::ifd_down seen after loading profile configuration. [PR1706565](#)
- VRRPv3 node sends a neighbor advertisement with the wrong virtual MAC. [PR1708712](#)
- The fibd core is observed on Routing Engine switchover. [PR1710227](#)
- The sflow reports incorrect extended switch data and in some scenarios extended switch data is missing in all packets. [PR1710919](#)
- The rpd and rpd-agent crash are observed after the reboot of primary Routing Engine or switchover. [PR1711265](#)
- Observed evo-aftmand-zx core at je_malloc_mutex_lock (mutex=0xa70) at include/jemalloc/internal/mutex.h:85. [PR1712464](#)
- FIBD crash after deactivating and activating an interface. [PR1713446](#)
- On PTX10001-36MR the VXLAN tunnel termination functionality impacted with global configuration not enabled. [PR1713640](#)
- Junos OS Evolved: Specific TCP traffic causes OFP core and restart of RE (CVE-2024-21612). [PR1714333](#)
- SSD failure resulting in File System errors does not perform mastership switch in timely manner and results in an operational outage. [PR1715345](#)
- The zookeeper session fails on primary Routing Engine and reboots Routing Engine twice. [PR1716059](#)

- PTX10004, PTX10008, PTX10016 Junos OS Evolved "LINE CARDS" LED on Status Panel is lit ON in Green right after FPC is inserted although FPC is present state. [PR1716276](#)
- Interface on PTX1001-36MR router remains down with QSFP-100GBASE-SR4 optics. [PR1716518](#)
- MAC accounting information cannot be confirmed on Junos OS Evolved PTX10001-36MR platform. [PR1716569](#)
- Protocol hello/keep-alive might not work on the MAC accounting interface. [PR1716767](#)
- Traffic loss is observed with FTI over IRB as underlay. [PR1717782](#)
- Junos OS Evolved:REG:PTX10001-36MR :: we observe syslog error in tunnel scripts. [PR1718540](#)
- Traffic with more than 12 MPLS labels is dropped. [PR1718711](#)
- Some outgoing control traffic gets dropped by BGP flowspec or L3VPN filter on certain Junos OS Evolved platforms. [PR1719581](#)
- The evo-aftmand-bt process might restart when an application exits. [PR1719739](#)
- System calls for shutdown after Routing Engine switchover. [PR1720259](#)
- Unnecessary "resiliencyd" messages appear for trap codes. [PR1720264](#)
- Application failure occurs on Routing Engine switchover. [PR1720276](#)
- Partial traffic null-route is observed on clearing BGP sessions under EVPN-VXLAN. [PR1720489](#)
- Ingress port does not work with flow spec traffic. [PR1720865](#)
- Occasional FPC crash and traffic loss is observed with a scaled number of FIB routes. [PR1722270](#)
- The FABTOKEN leak will be seen on Junos OS Evolved PTX platforms. [PR1723182](#)
- Traffic drop is seen and lots of evo-aftmand-bt error messages from app-name **EVPN ESI Fdb Entry**. [PR1723547](#)
- In EVPN-VXLAN setup ARP reply packets are not processed properly on Junos OS Evolved based PTX Series platforms. [PR1723756](#)
- Incorrect PPS value is observed on Junos OS Evolved platforms for a few seconds. [PR1723808](#)
- The hwdre core is generated when FTC (fan tray controller) is inserted. [PR1724151](#)
- Packet drop is observed on certain Junos OS Evolved platforms with filter-based forwarding configuration. [PR1725070](#)

- PTX Series Junos OS Evolved - esmc transmit interfaces might not be listed in show synchronous-ethernet esmc transmit CLI with generating clksyncd core file by replacing **interface name** with **replace pattern** CLI. [PR1725260](#)
- Enabling Cell BIST Support for LC1201 and LC1202 new HBM components. [PR1725658](#)
- Setting optic wavelength 1554.54 with certain 400G optics causes link down. [PR1725763](#)
- Random link flap is observed on the ports connected to re-timer. [PR1725823](#)
- The **/lib/systemd/system/docker.socket is marked executable** logs flood after system reboot. [PR1727524](#)
- JDI_EVO_REG::PTX10003: OSPF neighbor does not come up on UDP FTI tunnels with default MPLS port under set forwarding-options tunnels udp payload-port-profile. [PR1729358](#)
- All CFM sessions do not come up on Junos OS Evolved PTX10000 platforms. [PR1729615](#)
- Auto-sw-sync does not trigger upgrade or restart of Routing Engine. [PR1731877](#)
- Junos OS Evolved: PTX10003 Series: MAC address validation bypass vulnerability (CVE-2023-44189). [PR1732283](#)
- Traffic drop under strict-priority queue before low priority queue. [PR1732461](#)
- In TCP flow, the initial SYN+ACK packet is not marked with specified CoS related action on Junos OS Evolved platforms. [PR1733509](#)
- PTP gets stuck in acquiring state which leads to improper time synchronization after system reboot. [PR1734235](#)
- Junos OS Evolved: PTX10001, PTX10004, PTX10008, PTX10016: MAC address validation bypass vulnerability (CVE-2023-44190). [PR1735224](#)
- JDI_REG:Junos OS Evolved:PTX10003-80C and PTX10003-160C: We Observe evo-aftmand-zx.re core file at jexpr_fdb_ht_ent_add (hndl=0x7fb46c431740, params=params@entry=0x7fb40cdc4e00, pfe_inst=pfe_inst@entry=16) at ../../jfdb/common/jexpr_fdb.c:765. [PR1735288](#)
- BGP session flaps due to hold time expiration. [PR1736428](#)
- FTC X FTC FPGA minimum supported firmware version mismatch alarm raised by OIR FTC. [PR1739842](#)
- Ultron sZTP: System not bootable after request system zeroize. [PR1740989](#)
- Fans might stop working after removal and insertion of Fan Tray. [PR1742174](#)
- IFD does not come up whenever optics is removed and inserted on all Junos OS Evolved platforms. [PR1742772](#)

- In P2MP-MPLS-LSP set-up traffic drop/traffic blackhaul/label swap/ttl being set to 0 seen due to ARP timeout. [PR1743034](#)
- PTP disruption is seen as the backup goes re-acquiring on GM CC change from 7->6. [PR1744746](#)
- Error observed when configuring aggregate Ethernet interface. [PR1745528](#)
- The PTX10001-36mr: no debug logs created post Boot of the DUT. [PR1746103](#)
- Child interfaces deleted from aggregate Ethernet interfaces are still shown as part of AE. [PR1748236](#)
- The picd crash can be seen on all Junos OS Evolved platforms. [PR1748505](#)
- PTX10000 Junos OS Evolved - CMerror not raised post LAH (link auto-heal) fails during training failure. [PR1751581](#)
- Traffic null routes due to next-hops are stuck in the pending-delete in evo-aftmand. [PR1752267](#)
- The auto-sw-sync mechanism does not function as expected. [PR1755616](#)
- Memory leak from MAC route changes due to MAC moves or any operation contributing to the changes. [PR1756208](#)
- FPC unreachable due to running out of Guid space. [PR1756452](#)
- License-service crash is seen on Junos OS Evolved platforms. [PR1759618](#)
- PCS errors on Ethernet interface on certain PTX platforms running Junos OS Evolved. [PR1768453](#)
- FPC offline causes PTX10003-160C to reboot. [PR1768610](#)
- The orchestrator core dump during JSU. [PR1776669](#)
- Few protocol sessions remain down after quick arpd process disable and enable. [PR1665362](#)
- The rpdagent core dumps might be seen on a highly scaled box. [PR1707783](#)
- The rpd process crashes if too many trace options are initialised. [PR1732786](#)

Infrastructure

- Junos OS Evolved: Packets which are not destined to the router can reach the RE (CVE-2023-44195). [PR1713989](#)
- The neighbor-interface-state does not reach adjacency state for routing protocols over tunneled interface. [PR1715760](#)

- TCP connection is terminated when sent with incorrect MSS. [PR1718999](#)
- Junos OS Evolved devices might lose remote access in certain scenarios. [PR1719603](#)

Interfaces and Chassis

- Alarm string for a couple of PSM (Power Supply Module) errors for uniformity across platforms and better readability. [PR1701693](#)
- Few applications fail to start after image upgrade on PTX10003 platforms. [PR1705725](#)
- VRRP primary does not respond to Neighbor Solicitation on Junos OS Evolved platforms. [PR1714831](#)
- PTX10004, PTX10008, PTX10016 Junos OS Evolved `show interfaces media|extensive|brief|detail` CLI show **Down** state when CFMD brings IFD down. [PR1722201](#)
- PTX10004, PTX10008, PTX10016 Junos OS Evolved **Device flags** in `show interfaces` CLI is **Present Running Down** when CFMD brings IFD down. [PR1724286](#)
- Changing speed and adding to aggregate Ethernet in the same commit fails. [PR1743461](#)

Network Management and Monitoring

- The `snmp client-list-name` dependency unresolved error. [PR1665415](#)
- Syslog filter does not function with generating `/etc/syslog.conf` file after syslog configuration is deactivated and re-activated. [PR1726925](#)
- The `snmpd-subagent` core file is seen upon upgrade or system reboot. [PR1732325](#)
- The `snmpd` crash is observed after FPC restart. [PR1737682](#)
- Custom scripts might fail in Junos OS Evolved single Routing Engine platforms. [PR1753283](#)

Routing Policy and Firewall Filters

- CCL:NGPR: filter with `payload-protocol` cannot be attached to the `lo0` egress interface. [PR1703169](#)

User Interface and Configuration

- The system might ask for password while saving configuration files on single Routing Engine platforms. [PR1665008](#)
- The system might not come up in a working state post reboot for upgrade validation fails to detect invalid host-name. [PR1703745](#)
- hasGlobalIP: Attribute **GLOBALIPOWNER does not exist** is reported on primary Routing Engine when commit sync to Backup Routing Engine. [PR1741284](#)

Junos OS Evolved Release Notes for QFX5130-32CD, QFX5220, and QFX5700 Devices

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These release notes accompany Junos OS Evolved Release 22.4R3 for QFX5130-32CD, QFX5220-32CD, QFX5220-128C, and QFX5700 switches. They describe new and changed features, limitations, and known and resolved problems in the hardware and software.

What's New

There are no new features or enhancements to existing features in this release for QFX Series switches.

What's Changed

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Learn about what changed in these releases for QFX Series switches.

General Routing

- Before this change most lists were ordered by the sequence in which the user configured the list items, for example a series of static routes. After this change the list order is determined by the system with items displayed in numerical sequence rather than by the order in which the items were configured. There is no functional impact to this change.

Junos XML API and Scripting

- **Ability to commit extension-service file configuration when application file is unavailable**—When you set the optional option at the [edit system extension extension-service application file *varname* file-name] hierarchy level, the operating system can commit the configuration even if the file is not available at the `/var/db/scripts/jet` file path.

[See [file \(JET\)](#).]

- **Ability to restart restart daemonized applications**—Use the request extension-service restart-daemonize-app *application-name* command to restart a daemonized application running on a Junos OS Evolved device. Restarting the application can assist you with debugging and troubleshooting.

[See [request extension-service restart-daemonize-app](#).]

Network Management and Monitoring

- **Changes to the NETCONF server's <rpc-error> element when the operation="delete" operation deletes a nonexistent configuration object (ACX Series, PTX Series, and QFX Series)**—We've changed the <rpc-error> response that the NETCONF server returns when the <edit-config> operation uses operation="delete" to delete a configuration element that is absent in the target configuration. The error severity is error instead of warning, and the <rpc-error> element includes the <error-tag>data-missing</error-tag> and <error-type>application</error-type> elements.
- **Changes to the RPC response for <validate> operations in RFC-compliant NETCONF sessions (ACX Series, PTX Series, and QFX Series)**—When you configure the rfc-compliant statement at the [edit system services netconf] hierarchy level, the NETCONF server emits only an <ok/> or <rpc-error> element in response to <validate> operations. In earlier releases, the RPC reply also includes the <commit-results> element.

Software Installation and Upgrade

- **The request system software validate-restart command output indicates the upgrade method (QFX5220-32D)**—The request system software validate-restart command output summarizes the method required to perform the indicated upgrade, for example, an application restart, an in-service kernel warm restart, or a system reboot. [See [request system software validate-restart \(Junos OS Evolved\)](#).]

Routing Protocols

- Prior to this change the output of the show isis spring flex-algorithm | display xml command was invalidly formatted when multiple flex algorithm instances were configured. With the change, the XML output is properly structured showing flex algorithm information for each instance. A new XML tag **isis-spring-flex-algorithm** is added to bundle information for each instance.
- In Junos OS Evolved platforms, show route snooping and show route forwarding-table does not show /56 routes in the VPLS address family table.

User Interface and Configuration

- **Viewing files with the `file compare files` command requires users to have maintenance permission**— The `file compare files` command in Junos OS and Junos OS Evolved requires a user to have a login class with maintenance permission.

[See [Login Classes Overview](#).]

Known Limitations

There are no known limitations in hardware or software in this release for QFX Series switches.

For the most complete and latest information about known Junos OS Evolved defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

Open Issues

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- [General Routing](#) | 26

Learn about open issues in this release for QFX Series switches.

For the most complete and latest information about known Junos OS Evolved defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

General Routing

- QFX5700 - Ungraceful removal (OIR) of FPC or an FPC fault might result in PCIE MAJOR alarm PCI **Uncorrected error on dev 0000:00:03.0** which does not get cleared. [PR1620197](#)
- L2 related daemons - lacpd, ifmand, and arpd - when patched using JSU might cause the Junos OS Evolved device to not boot up. [PR1676132](#)

- On QX5700, MKA session establishment might be delayed by up to 15 seconds after the configuration commit. [PR1705117](#)
- On Junos Evolved QFX5220 platforms, PTP (Precision Time Protocol) packets are not forwarded appropriately, hence device does not phase align with PTP GM (GrandMaster) resulting in the PTP synchronization issue. [PR1706173](#)
- On QFX5700, intermittently traffic gets blackholed on the line side Tx/Rx, when configuration is applied. [PR1708773](#)
- On Junos OS Evolved platforms QFX5130/QFX5220/QFX5700, when the device is rebooted, hash distribution continues to work but does not work as expected post reboot. The flows might be hashed onto different links after reboot. [PR1724147](#)
- The evo-pfemamd process is observed to crash on Junos Evolved platforms with LACP configuration. [PR1756648](#)
- The python modules are available under /usr/lib/python3.7/ for Junos OS Evolved 22.4R3. [PR1759043](#)
- On QFX5220-32CD, QFX5220-128C & QFX5230 platforms, when the IRB (Integrated Routing and Bridging) interface is without explicit MTU (Maximum Transmission Unit) configuration and the underlying Layer 2 interface has MTU greater than 1518, there is a complete traffic drop. [PR1771661](#)

Resolved Issues

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Learn about the issues fixed in this release for QFX Series switches.

For the most complete and latest information about known Junos OS Evolved defects, use the Juniper Networks online [Junos Problem Report Search](#) application.

General Routing

- VRRPv3 node sends a neighbor advertisement with the wrong virtual MAC. [PR1708712](#)
- All BGP flapped and evo-pfemamd process crashed. [PR1709859](#)
- LAG does not load balance as expected when it is configured as a VXLAN gateway. [PR1713599](#)
- Traffic gets dropped on Junos Evolved QFX platforms when app routing is restarted. [OS](#)
- Unequal traffic distribution on the fabric links. [PR1718113](#)
- The ECMP routing table does not get updated when underlay L3 interface link flaps in EVPN-VXLAN scenario. [PR1720399](#)
- The VRF route leaking does not happen for the routes learned on the aggregated Ethernet interface in the EVPN-VXLAN MAC-VRF routing-instance. [PR1722109](#)
- Egress traffic fails to be sent out through ECMP VxLAN tunnels on a QFX5130 or QFX5700 Border leaf switch. [PR1724843](#)
- Link failure is seen on 10G SFP+ ports of QFX Series platforms. [PR1725300](#)
- Traffic flooding when the hardware MAC table is not synchronized with the software MAC table in the ESI environment. [PR1736291](#)
- The traffic for the same flow with the same tuple is sent through different tunnels if the TTL value in IPv4 or the payload length in IPv6 is different. [PR1738709](#)
- Traffic loss is seen due to anomalies after the recreation of logical interfaces. [PR1740561](#)
- Traffic loss is seen for host generated traffic from QFX5130 and QFX5700 platforms. [PR1741712](#)
- ECMP member table is not updated properly when underlay and overlay reachability is not changed in a particular order. [PR1745214](#)
- Silent drop in traffic is observed when the overlay link is flapped with EVPN-VXLAN configuration. [PR1745711](#)

EVPN

- Traffic drop is observed in EVPN-VXLAN CRB scenario. [PR1734091](#)

Network Management and Monitoring

- snmpd-subagent core file seen upon upgrade or system reboot. [PR1732325](#)

User Interface and Configuration

- The system might ask for password while saving configuration files on single Routing Engine platforms. [PR1665008](#)

Upgrade Your Junos OS Evolved Software

Products impacted: ACX7024, ACX7100-32C, ACX7100-48L, ACX7509, PTX10001-36MR, PTX10003, PTX10004, PTX10008, PTX10016, QFX5130-32CD, QFX5220-32CD, QFX5220-128C, and QFX5700.

Follow these steps to upgrade your Junos OS Evolved software:

1. Using a Web browser, navigate to the All Junos Platforms software download URL on the Juniper Networks webpage: <https://www.juniper.net/support/downloads/>
2. In the Find a Product box, enter the Junos OS platform for the software that you want to download.
3. Select Junos OS Evolved from the OS drop-down list.
4. Select the relevant release number from the Version drop-down list.
5. In the **Install Package** section, select the software package for the release.
6. Log in to the Juniper Networks authentication system using the username (generally your e-mail address) and password supplied by a Juniper Networks representative.
7. Review and accept the End User License Agreement.
8. Download the software to a local host.
9. Copy the software to the device or to your internal software distribution site.
10. Install the new package on the device.

NOTE: We recommend that you upgrade all software packages out of band using the console because in-band connections are lost during the upgrade process.

For more information about software installation and upgrade, see [Software Installation and Upgrade Overview \(Junos OS Evolved\)](#). For more information about EOL releases and to review a list of EOL releases, see <https://support.juniper.net/support/eol/software/junosevo/>.

Licensing

In 2020, Juniper Networks introduced a new software licensing model. The Juniper Flex Program comprises a framework, a set of policies, and various tools that help unify and thereby simplify the multiple product-driven licensing and packaging approaches that Juniper Networks has developed over the past several years.

The major components of the framework are:

- A focus on customer segments (enterprise, service provider, and cloud) and use cases for Juniper Networks hardware and software products.
- The introduction of a common three-tiered model (standard, advanced, and premium) for all Juniper Networks software products.
- The introduction of subscription licenses and subscription portability for all Juniper Networks products, including Junos OS and Contrail.

For information about the list of supported products, see [Juniper Flex Program](#).

Finding More Information

- **Feature Explorer**—Juniper Networks Feature Explorer helps you to explore software feature information to find the right software release and product for your network.
<https://apps.juniper.net/feature-explorer/>
- **PR Search Tool**—Keep track of the latest and additional information about Junos OS open defects and issues resolved.
<https://prsearch.juniper.net/InfoCenter/index?page=prsearch>
- **Hardware Compatibility Tool**—Determine optical interfaces and transceivers supported across all platforms.
<https://apps.juniper.net/hct/home>

NOTE: To obtain information about the components that are supported on the devices and the special compatibility guidelines with the release, see the Hardware Guide for the product.

- **Juniper Networks Compliance Advisor**—Review regulatory compliance information about [Common Criteria](#), [FIPS](#), [Homologation](#), [RoHS2](#), and [USGv6](#).

<https://pathfinder.juniper.net/compliance/>

Requesting Technical Support

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Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active Juniper Care or Partner Support Services support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- **JTAC policies**—For a complete understanding of our JTAC procedures and policies, review the JTAC User Guide located at <https://www.juniper.net/us/en/local/pdf/resource-guides/7100059-en.pdf>.
- **Product warranties**—For product warranty information, visit <https://www.juniper.net/support/warranty/>.
- **JTAC hours of operation**—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

Self-Help Online Tools and Resources

For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: <https://www.juniper.net/customers/support/>
- Search for known bugs: <https://prsearch.juniper.net/>
- Find product documentation: <https://www.juniper.net/documentation/>

- Find solutions and answer questions using our Knowledge Base: <https://kb.juniper.net/>
- Download the latest versions of software and review release notes: <https://www.juniper.net/customers/csc/software/>
- Search technical bulletins for relevant hardware and software notifications: <https://kb.juniper.net/InfoCenter/>
- Join and participate in the Juniper Networks Community Forum: <https://www.juniper.net/company/communities/>
- Create a service request online: <https://myjuniper.juniper.net/>

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: <https://entitlementsearch.juniper.net/entitlementsearch/>

Creating a Service Request with JTAC

You can create a service request with JTAC on the Web or by telephone.

- Visit <https://myjuniper.juniper.net/>
- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see <https://support.juniper.net/support/requesting-support/>.

Revision History

29 February 2024—Revision 2, Junos OS Evolved Release 22.4R3

25 January 2024—Revision 1, Junos OS Evolved Release 22.4R3

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