Release Notes

Junos OS Evolved Release 22.4R2

Introduction

Use these release notes to find new and updated features, software limitations, and open issues for Junos OS Evolved Release 22.4R2.

For more information on this release of Junos OS Evolved, see Introducing Junos OS Evolved.

Engineering
Simplicity

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Junos OS Evolved Release Notes for ACX7024, ACX7100-32C, ACX7100-48L, and ACX7509 Devices

These release notes accompany Junos OS Evolved Release 22.4R2 for ACX7024, ACX7100-32C, ACX7100-48L, and ACX7509 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

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

What's Changed in Release 22.4R2-S1

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).]

What's Changed in Release 22.4R2

EVPN

- **Commit error if interconnect and local route distinguishers have the same value**—On EVPN data center interconnect (DCI) gateway devices, if you configure an interconnect RD at the `edit routing-instances` *name* `protocols evpn interconnect` hierarchy, the interconnect RD must be different from the local RD in the routing instance. If you try to configure the same value for the interconnect RD and the local RD in a routing instance, the device enforces this requirement by throwing a commit error. However, with DCI seamless stitching for EVPN Type 5 routes, you don't see the commit error prior

to this release. Starting in this release, the device throws the commit error to enforce this condition for DCI stitching with Type 5 routes.

[See route-distinguisher.]

- **Specify the UDP source port in a ping overlay or traceroute overlay operation**—In Junos OS releases prior to 22.4R1, you could not configure the udp source port in a ping overlay or traceroute overlay operation. You may now configure this value in an EVPN-VXLAN environment using `hash`. The configuration option `hash` will override any other hash-* options that may be used to determine the source port value.

General Routing

- In the past inet6flow.0 was not allowed to be a primary rib in a rib-group. Starting with Release 22.3 this is now allowed.

- **Label for the hours unit of time displayed in output** — When there are zero minutes in the output for the `show system uptime` command, the label for the hours unit of time is displayed.

  [See show system uptime.]

- **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.]

- The connectivity fault management process (cfmd) runs only when the ethernet connectivity-fault-management protocol is configured.

- 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.

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.]

Network Management and Monitoring

- `operator` **login class is restricted from viewing NETCONF trace files that are** `no-world-readable` **(ACX Series, PTX Series, and QFX Series)**—When you configure NETCONF tracing options at the `[edit system services netconf traceoptions]` hierarchy level and you restrict file access to the file owner by setting or omitting the `no-world-readable` statement (the default), users assigned to the `operator` login class do not have permissions to view the trace file.

Platform and Infrastructure

- **The** `ping host | display xml validate` **command validates XML without error (ACX Series, PTX Series, and QFX Series)**— In Junos OS and Junos OS Evolved releases prior to 22.4R2, the `ping host | display xml validate` command results in CRITICAL ERROR: Root tag name mismatch. Expected **ping-results**, got **run-command**. The command now validates the XML successfully without error.

  [See ping.]

Known Limitations

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Learn about limitations 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.

General Routing

- When testing for Class-C performance using channelised 50g interface speed with 100g and 25g as other port, the average cTE marginally exceeds the Class-C mask.PR1695674

Open Issues

IN THIS SECTION

Learn about open issues 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.

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

- 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 same commit. This is a sequence issue from CoSD (Routing Engine) which is not guaranteed at Packet Forwarding Engine side. And this is applicable for all platforms.PR1664785

- The QSFP28-DD-2X100GBASE-LR4 links go down on multiple FPC restarts/system reboots due to the optics tx loss. PR1685520

- DTE mask fails for cascaded setup with long run.PR1697093

- In Layer 2 circuit or EVPN or VPLS topology, when the UNI interface has static or dynamic LAG configured, the native LACP packets (untagged PDUs) received in the UNI interface are punted to hostpath as expected. The tagged LACP PDUs received on the same UNI are expected to be transparenly forwarded to the destination like data packets but these are also punted and dropped in the ACX device. The same is applicable for LLDP case too.PR1698549

- On Junos OS Evolved platforms, any UI (user interface) set (configuration, script, license) changes done post software addition are being lost after the subsequent reboot.PR1699699

- **HwResIdxDnxTrunk index availability is low** alarm filed after configuring 255 lag physical interfaces and alarm does not get cleared after removing the configuration.PR1703506

- Only one virtual-gateway-v4-mac and one virtual-gateway-v6-mac is supported system wide. The IPv4 and IPv6 MAC might be same or different. PR1708967

- Repeated error log messages indicating duplicate IP, **L2ALM_DUPLICATE_IP_ADDR** are seen on mclag devices with IPV6 traffic.PR1719868

- A few macip objects owned by l2ald are not cleaned up post changing the MC-AE mode from active-active to active-standby. So it causes incomplete object state and system. With the above mode change, we see some stale mac-ip entries in the `show ethernet-switching mac-ip-table`. PR1722626

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

Services Applications

- Paragon Active Assurance (PAA) plugins might report incorrect latency results occasionally exceeding 20 ms, the error is larger in transmit direction and is more likely to occur at higher rates.PR1697270

User Interface and Configuration

- The system might ask for your password when you are trying to save configuration file.PR1665008

Resolved Issues

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.

General Routing

- .include directives are deprecated, and support for them is removed. Warning comes for all custom services. PR1647592

- Performance monitoring for 400ZR optics reporting data as suspect with reason **Int Too Short**. PR1670033

- Some VPLS and L2VPN streams are dropped on the aggregated Ethernet interface after a change in MTU configuration on the AE interface. PR1671451

- The FPC can go to a fault state on certain Junos OS Evolved PTX Series platforms after system reboot.s

  PR1682659

- PTP/TWAMP does not work on PM50 ports (et-0/0/0 to et-0/0/3 on ACX7024 and all ports on ACX7100-48L) if FEC74 is enabled on that port. PR1684770

- Routing Engine/FEB primary role does not switchover automatically when master FEB is ungracefully jacked out. PR1684982

- Static-lsp with dynamic ARP shows traffic drop. PR1688573

- Junos OS Evolved::JDI_REG::ACX7100: DHCPv6 relay bindings are not as expected after deactivate and activate interfaces. PR1692278

- [interface] [evo_ifd]: 400G-FR4/400G-DR4: Several additional interface flaps happen after setting MTU to 9100. PR1693701

- The rpd core file is seen after the switchover. PR1694773

- Layer 3 services is impacted due to ERPS configuration. PR1695882

- System reboot related log message SYSTEM_REBOOT_EVENT might not be displayed in `show log messages | match SYSTEM_REBOOT_EVENT`. PR1696668

- DTE mask fails for cascaded setup with long run. PR1697093

- [timing] [ptp]- Timingd core file is generated with PTPoIRB configuration. PR1701122

- L2circuit traffic with a specific source MAC address might be dropped after label processing at an LSR. PR1701308 PR1701122

- ACX7509 occasionally occurrs in link stuck down require reboot to recover after multiple FPC restarts. PR1701941

- On Junos OS Evolved platforms, the traffic impact is seen as the `set system process routing enable/disable` configuration statement does not working as expected. PR1702734

- Port-mirroring does not work if hierarchical-scheduler is enabled on the analyzer output port. PR1703567

- The transit Multicast traffic gets dropped on Junos OS Evolved ACX platforms. PR1705680

- hwdfpc owned records are not exported in Junos OS Evolved platform for FPC environment sensor.PR1706833

- Junos os Evolved:ACX7509: We see **FEB 0 si5394m_1 PLL Access Failure** alarms and application evo-pfemand failure on node re0 after `request system application app hwdre node re0 restart` PR1708588

- ACX7024 :: On L2circuit with redundancy configured, traffic keeps dropping after primary l2ckt flaps. PR1709023

- PTP lock-status stuck at (ACQUIRING) state and the downstream node does not get PTP packets. PR1712942

- Junos OS Evolved-ACX: [Error] RT : Cleaning up 1 acks without processing.

- SnP: all BGP sessions are not established when bfd IPv6 sessions are scaled to 1024. PR1715008

Infrastructure

- `show route forwarding-table destination` command takes long time in a scaled system for non-/32 prefixes. PR1685545

Interfaces and Chassis

- LLDP packet drop is seen when the physical interface (IFD) is configured with flexible-vlan-tagging. PR1689391

Platform and Infrastructure

- RFC2544 in VRF instance [l2vpn/evpn-vpws] does not accept `routing-instance` value in Operational CLI PR1696146

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

IN THIS SECTION

These release notes accompany Junos OS Evolved Release 22.4R2 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.

What's Changed in Release 22.4R2-S1

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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).]

What's Changed in Release 22.4R2

EVPN

- **Commit error if interconnect and local route distinguishers have the same value**—On EVPN data center interconnect (DCI) gateway devices, if you configure an interconnect RD at the `edit routing-instances` *name* `protocols evpn interconnect` hierarchy, the interconnect RD must be different from the local RD in the routing instance. If you try to configure the same value for the interconnect RD and the local RD in a routing instance, the device enforces this requirement by throwing a commit error. However, with DCI seamless stitching for EVPN Type 5 routes, you don't see the commit error prior to this release. Starting in this release, the device throws the commit error to enforce this condition for DCI stitching with Type 5 routes.

  [See route-distinguisher.]

- **Specify the UDP source port in a ping overlay or traceroute overlay operation**—In Junos OS releases prior to 22.4R1, you could not configure the udp source port in a ping overlay or traceroute overlay operation. You may now configure this value in an EVPN-VXLAN environment using `hash`. The configuration option `hash` will override any other hash-* options that may be used to determine the source port value.

General Routing

- In the past inet6flow.0 was not allowed to be a primary rib in a rib-group. Starting with Release 22.3 this is now allowed.

- The Ethernet link fault management process (lfmd) runs only when the link-fault-management protocol is configured.

- Previously, if the system failed to install an interface or hierarchical policer, the PFE crashed due to an assert. Now, the system installs a firewall discard and logs a DFW_HALP_ERR_MSG_POLICER_ADD_FAILED error message. This error message provides the name of the affected policer and the corresponding error code. Relevant policers appear under the interface > unit > family > policer input/output (or) interface > unit > family > input-hierarchical-policer stanzas.PR1701676

- An optics configuration mismatch alarm may be triggered when there is a discrepancy between the configured speed of an interface and the supported speed of the optic. This alarm indicates that the optic installed in the specified FPC is incompatible with the speed configured on the interface.

- **Label for the hours unit of time displayed in output** — When there are zero minutes in the output for the `show system uptime` command, the label for the hours unit of time is displayed.

  [See show system uptime.]

- The connectivity fault management process (cfmd) runs only when the ethernet connectivity-fault-management protocol is configured.

- 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.

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.]

Network Management and Monitoring

- **`operator` login class is restricted from viewing NETCONF trace files that are `no-world-readable` (ACX Series, PTX Series, and QFX Series)**—When you configure NETCONF tracing options at the `[edit system services netconf traceoptions]` hierarchy level and you restrict file access to the file owner by setting or omitting the `no-world-readable` statement (the default), users assigned to the `operator` login class do not have permissions to view the trace file.

Platform and Infrastructure

- **The `ping host | display xml validate` command validates XML without error (ACX Series, PTX Series, and QFX Series)**— In Junos OS and Junos OS Evolved releases prior to 22.4R2, the `ping host | display xml validate` command results in CRITICAL ERROR: Root tag name mismatch. Expected **ping-results**, got **run-command**. The command now validates the XML successfully without error.

  [See ping.]

- Prior to this change, devices by default responded only to ARP requests originating from the same subnet. Configure the new CLI option, "respond-out-of-subnet" at the **edit system arp** hierarchy level to allow ARP reply to a request that originates from a different subnet.

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.

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

Open Issues

Learn about open issues 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.

EVPN

- While sourcing configuration for EVPN-VPWS, remove control-word configuration inside EVPN-VPWS routing-instance as it is enabled globally by default configuration.PR1698059

General Routing

- Below is the expected performance for this 21.4. Profile Freq (Hz) NoiseTransfer_0_00391_Results PASS PASS NoiseTransfer_0_00781_Results FAIL FAIL NoiseTransfer_0_01563_Results FAIL FAIL NoiseTransfer_0_03125_Results FAIL FAIL NoiseTransfer_0_06156_Results FAIL FAIL NoiseTransfer_0_12313_Results FAIL FAIL NoiseTransfer_0_24625_Results PASS PASS NoiseTransfer_0_4925_Results PASS PASS NoiseTransfer_0_985_Results PASS PASS NoiseTransfer_1_985_Results PASS PASS NoiseTransfer_3_985_Results PASS PASS NoiseTransfer_7_985_Results PASS PASS PR1624502

- Layer 2 related daemons - lacpd, ifmand, and arpd - when patched using JSU might cause the Junos Evolved device to not boot up. PR1676132

- G.8273.2 Synce to PTP and SyncE to 1PPS Transient Response test fails. PR1681527

- Class B performance as per G.8273.2 fails for SyncE to PTP and SyncE to 1pps noise transfer for lower frequencies. PR1681884

- Class B performance as per G.8273.2 shall be supported only when FEC is enabled on both the primary and secondary ports of the T-BC(default option).PR1683579

- With Sharding enabled, BGP flags like 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>` will show these flags. PR1693207

- Junos has a limitation of 255 characters for resource names. Increasing the limit will have implications on the CLI output and same changes will needed to be propagated to lower layers where the resources are served from. PR1695980

- On Junos OS Evolved Platforms, any UI (user interface) set (configuration, script, license) changes done post software addition were being lost after the subsequent reboot.PR1699699

- Lo0 filter change might trigger parity error, when filter is changed from ISF to Non ISF or vice versa. PR1709204

- On all Junos OS Evolved platforms, after deleting the routing-instances and then doing a rollback, will stop the working of RIB-filtering (Routing Information base) in BMP (BGP Monitoring Protocol).PR1715886

- The PPS reported for the interface might fluctuate for a few seconds and show either higher or lower value. The chance of this happening is very rare. PR1723808

- On PTX10004, PTX10008, and PTX100016 Junos OS Evolved, hardware core is generated when FTC(fan tray controller) is inserted. PR1724151

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 PTX10003, when `set chassis fpc <fpc-slot> pfe <pfe-id> power (off|on)` is configured and an image upgrade is performed, certain applications like rpd-sa-agent, rptmd, dot1xd,

etc might fail to start post upgrade is completed. Related features and functionalities associated with these applications will not work. PR1705725

Network Management and Monitoring

- When you configure `maximum-password-length` and try to configure password whose length exceeds configured maximum-password-length, an error messgae is generated along with `ok` tag. The configuration does not get committed. PR1585855

- On Junos Evolved platforms, SNMP walk table (ipNetToMediaPhysAddress) is not updated when a neighbour entry is configured. PR1704878

Routing Policy and Firewall Filters

- Delete single prefix from prefix-list will cause all the prefixes to be deleted. PR1691218

User Interface and Configuration

- The system might ask for password when you save the configuration file. PR1665008

- Committing the wild-carded groups related configuration causes the configd-streamer process to generate core files, which is used in the reported fusion test case. PR1674890

- In Junos OS Evolved, during scaled configuration commit, Configd daemon in UI-infra is taking more time to process the commit. To optimise the processing time, most likely there will be design change required. There is no LKWR or pass instance. Also based on the configuration scale and the time taken for the commit to complete, it seems that this is a Day-1 issue.PR1701214

Resolved Issues

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- Class of Service (CoS) | 17

Learn about the issues fixed 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.

Class of Service (CoS)

- The host outbound traffic drop is seen on all Junos OS Evolved platforms due to a race condition between class-of-service host-outbound-traffic and forwarding-class configuration update. PR1692542

General Routing

- The license might get out of sync between primary and backup Routing Engine. PR1658869

- The aftmand process will crash upon updating the configurations on the FTI tunnels. PR1663417

- The traffic loop would be observed when ESI is configured on IFD. PR1672631

- Destination mask length reported in Sflow exported packet is lesser compared to the value seen in `show route forwarding-table destination`. PR1680040

- The FPC can go to a fault state on certain Junos OS Evolved PTX platforms after system reboot. PR1682659

- The evo-aftmand-bt crashes when the traffic is sampled with egress sFlow. PR1685571

- The fibd process will crash when a large number of interfaces are deleted and added back. PR1685995

- Scale issue on l2 interfaces in sp mode. PR1690635

- The queue-counters-queued-bytes-rate for network-class is not within the range with cos mru 9200 configuration. PR1691957

- CM Major Errors alarm not raised for pre_init_pll_programming failure with faulty PFE on PTX10004/8/16 Junos OS Evolved platforms. PR1693511

- The fabspoked-pfe process crashes when a FATAL ERROR occurs in the Packet Forwarding Engine. PR1693697

- CM alarm is not triggering for Packet Forwarding Engine going into fault state. PR1693710

- CMIS CX : Telemetry : various component level sensor path for FAN, FABRIC, FAN, POWER_SUPPLY, STORAGE, STORAGE, BOOT_LOADER, BIOS, OPERATING_SYSTEM, LINECARD, TRANSCEIVER not working. PR1694612

- The line cards will remain in PRESENT state post reboot. PR1695952

- PTX10004/8/16 EVO : LC Status LED MIB jnxLEDDescr.3.7.x.0.0 returns undefined 0 value due to read error. PR1696500

- License key is not installed after upgrade. PR1696879

- BGP sessions are getting flapped. PR1697099

- PTX10004/8/16 EVO : LED on **Status Panel** is Unlit OFF. PR1697503

- PTX10008 EVO : FTC FPGA minimum supported firmware version mismatch alarm gets generated upon re-seating FTC. PR1698209

- PTX10004/8/16 EVO : SNMP jnxLEDState mib returns 4(red) value even when BITS LED is unlit/off. PR1698919

- JDI_REG:: EVO:Scapa[BFD]: one of the BFD state is down after Performing BT Restart. PR1699323

- CMIS CX : Telemetry : subscription to path /components/component[name='Routing Engine0:bootloader']/state/location/ and /components/component[name='Routing Engine0:bootloader']/state/parent/ not working. PR1701239

- PTX10004/8/16 EVO : SNMP mib jnxOperatingState not working for runningAtFullSpeed PR1701983

- Junos OS Evolved - fibd object-info anomalies observed@net::juniper::addrwatch::AddrWatchNotify. PR1704379

- PTX10004/8/16 EVO : GARP is not sent from new primary Routing Engine's management interface upon RE switchover. PR1705245

- The evo-aftmand crash can be seen on PTX Junos OS Evolved platforms. PR1705536

- PTX10004/8/16 EVO : When offlined FPC is removed from chassis, `show chassis craft-interface` CLI shows **Fail** for removed FPC. PR1706601

- The hwdfpc owned records are not exported in the Junos OS Evolved platform for FPC environment sensor. PR1706833

- PTX10008 EVO : When PSM (JNP10K-PWR-AC2) is switched off and "OK LED" is unlit off, but jnxLEDState mib shows green(2). PR1708892

- [sflow] [Junos OS Evolved-PTX10003-80C and PTX10003-160C] sflow reports incorrect extended switch data for different untagged/vlan-tagged and vlan-tagged/untagged ingress/egress interface combinations. PR1710919

- Observed vmcore while executing MTS (scripr profile: ospf_db_protection_mts_001.robot_BRACKLA.... #bad_area_nosemaphore, #uio_dma_buf_ops_release, #task_work_run). PR1711964

- Observed evo-aftmand-zx core at je_malloc_mutex_lock (mutex=0xa70) at include/jemalloc/internal/mutex.h:85. PR1712464

- PTX10004/8/16 EVO : SNMP trap jnxFruOnline is raised when JNP10K-PWR-DC2 PSM(single power input) is powered off by button press. PR1713462

- On PTX10001-36MR the VXLAN tunnel termination functionality impacted with global configuration not enabled. PR1713640

- SSD failure resulting in File System errors does not perform primary role switch in timely manner and results in an operational outage. PR1715345

- The Zookeeper session fails on primary Routing Engine and reboots RE twice. PR1716059

- "Jexpr: NhList:- List Token: xxxx" and "Jexpr: NhList:- Calling update@pos: xx updated token" might be seen when IPv6 next-hop is created. PR1716510

- 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

- JDI-RCT: EVPN-VXLAN:PTX10008-EVO: Traffic drop is observed in leaf layer device after clear BGP neighbor ("clear bgp neighbour all") done in spine layer device. PR1720489

- Junos Os Evolved, 400GZR: Not able to tune 400G ZR optics to 1554.54nm. PR1725763

- Few protocol sessions remain down after quick arpd process disable and enable. PR1665362

- RPD core is seen after the switchover. PR1694773

Infrastructure

- The `show route forwarding-table destination` command takes long time in a scaled system for non-/32 prefixes. PR1685545

- The wrong source address will be used in egress packets. PR1696056

- When a syslog is generated and transported to a log collector over an IPv6 connection, processes like eventd might crash. PR1703823

- SYN-ACK and subsequent TCP session packets generated by Routing Engine will have incorrect DSCP value. PR1703955

- Junos OS Evolved:REG ::neighbor-interface-state not establishing for R0 FULL while testing OSPF overlay protocol. PR1715760

Interfaces and Chassis

- LLDP packet drop is seen when the physical interface (IFD) is configured with flexible-vlan-tagging. PR1689391

- The link-local address is not generated for loopback interface. PR1695502

- PTX10003-160C : Router rebooted without any logs. No core-dump. PR1706688

- VRRP primary does not respond to Neighbor Solicitation from opposite device to virtual-link-local-address. PR1714831

Network Management and Monitoring

- The snmp-subagent cored at #0 0x00007f54fa7a525d. PR1683517

- Interface physical IP address is assigned to SNMP trap source address after chassis restart although you configure source-address lo0 under trap-options. PR1690850

Routing Policy and Firewall Filters

- The SCU/DCU firewall filter match will not work as expected. PR1699138

User Interface and Configuration

- The BFD fails to come up when Routing Engine filter is configured with apply-path. PR1698347

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

IN THIS SECTION

These release notes accompany Junos OS Evolved Release 22.4R2 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

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

What's Changed in Release 22.4R2-S1

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).]

What's Changed in Release 22.4R2

Learn about what changed in this release for QFX Series switches.

EVPN

- **Commit error if interconnect and local route distinguishers have the same value**—On EVPN data center interconnect (DCI) gateway devices, if you configure an interconnect RD at the `edit routing-instances` *name* `protocols evpn interconnect` hierarchy, the interconnect RD must be different from the local RD in the routing instance. If you try to configure the same value for the interconnect RD and the local RD in a routing instance, the device enforces this requirement by throwing a commit error. However, with DCI seamless stitching for EVPN Type 5 routes, you don't see the commit error prior to this release. Starting in this release, the device throws the commit error to enforce this condition for DCI stitching with Type 5 routes.

  [See route-distinguisher.]

- **Specify the UDP source port in a ping overlay or traceroute overlay operation**—In Junos OS releases prior to 22.4R1, you could not configure the udp source port in a ping overlay or traceroute overlay operation. You may now configure this value in an EVPN-VXLAN environment using `hash`. The configuration option `hash` will override any other hash-* options that may be used to determine the source port value.

- **Configure** `conserve-mcast-route-in-pfe` **option on OISM server leaf and border leaf devices in scaled EVPN-VXLAN fabrics to avoid multicast route exhaustion (QFX5130-32CD and QFX5700 switches)** —You can configure QFX5130-32CD and QFX5700 switches as optimized intersubnet multicast (OISM) server leaf or border leaf devices in an EVPN-VXLAN fabric. In scaled fabrics with many VLANs, EVPN instances, and multicast streams, you might see multicast traffic loss on these devices due to the limited size of the multicast snooping route tables in the PFE. To avoid this problem on QFX5130-32CD and QFX5700 switches with OISM in scaled environments, we require that you configure the `conserve-mcast-routes-in-pfe` option at the `edit multicast-snooping-options oism` hierarchy on these platforms. This option is available only on QFX5130-32CD and QFX5700 switches. Use this option when you configure these devices as server leaf or border leaf devices with OISM. Do not configure this option when you configure these devices as standalone assisted replication (AR) replicators with OISM.

General Routing

- In the past inet6flow.0 was not allowed to be a primary rib in a rib-group. Starting with Release 22.3 this is now allowed.

- **Label for the hours unit of time displayed in output** — When there are zero minutes in the output for the `show system uptime` command, the label for the hours unit of time is displayed.

  [See show system uptime.]

- The connectivity fault management process (cfmd) runs only when the ethernet connectivity-fault-management protocol is configured.

- 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.

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.]

Network Management and Monitoring

- **`operator` login class is restricted from viewing NETCONF trace files that are `no-world-readable` (ACX Series, PTX Series, and QFX Series)**—When you configure NETCONF tracing options at the `[edit system services netconf traceoptions]` hierarchy level and you restrict file access to the file owner by setting or omitting the `no-world-readable` statement (the default), users assigned to the `operator` login class do not have permissions to view the trace file.

Platform and Infrastructure

- **The `ping host | display xml validate` command validates XML without error (ACX Series, PTX Series, and QFX Series)**— In Junos OS and Junos OS Evolved releases prior to 22.4R2, the `ping host | display xml validate` command results in CRITICAL ERROR: Root tag name mismatch. Expected **ping-results**, got **run-command**. The command now validates the XML successfully without error.

  [See ping.]

Known Limitations

Learn about known limitations 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

For QFX5130-32CD and QFX5220-32CD platforms, increase the Performance Monitoring (PM) Engine polling interval from one every 2 and 4 seconds, respectively, to 1 per second for both platforms.

Open Issues

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

- 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

- Layer 2 related daemons - lacpd, ifmand, and arpd - when patched using JSU might cause the Junos Evolved router to not boot up. PR1676132

User Interface and Configuration

The system might ask for your password when you are trying to save configuration file. PR1665008

Resolved Issues

IN THIS SECTION

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

- JDI-RCT:IPCLOS:QFX5130-32CD:400G DAC link does not come up; the vendor shell shows speed as 12.4G instead of 400g.PR1680009

- QFX5220-128C: System reboot related log message **SYSTEM_REBOOT_EVENT** might not be displayed in `show log messages | match SYSTEM_REBOOT_EVENT`. PR1696668

- QFX5700 MacSec: MKA sessions might not come up after restarting FPC multiple times.PR1702520

- CRDC MFT: picd core file observed after FPC OIR with CRDC baseline configuration. PR1709962

- LAG doesn't load balance as expected when it is configured as a VXLAN gateway. PR1713599

- Junos OS Evolved based QFX5000 switches (QFX5130-32CD) - EVPN VXLAN ECMP routing does not happen when underlay Layer 3 link flaps. PR1720399

- Link failure is seen on 10G SFP+ ports of QFX Series platforms.PR1725300

- Unequal traffic distribution on the fabric links. PR1718113

Routing Protocols

- Traffic loss observed due to multicast routes exceeding the scale for OISM feature.PR1671901

User Interface and Configuration

- Show commands might not work after unified ISSU upgrade. PR1692409

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

> (i) **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

IN THIS SECTION

- Self-Help Online Tools and Resources | **30**
- Creating a Service Request with JTAC | **30**

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/

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 Juniper Support Portal: Case Management, Product Support & More.

- 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

08 January 2026—Revision 4, Junos OS Evolved Release 22.4R2

10 August 2023—Revision 3, Junos OS Evolved Release 22.4R2

20 July 2023—Revision 2, Junos OS Evolved Release 22.4R2

1 June 2023—Revision 1, Junos OS Evolved Release 22.4R2